

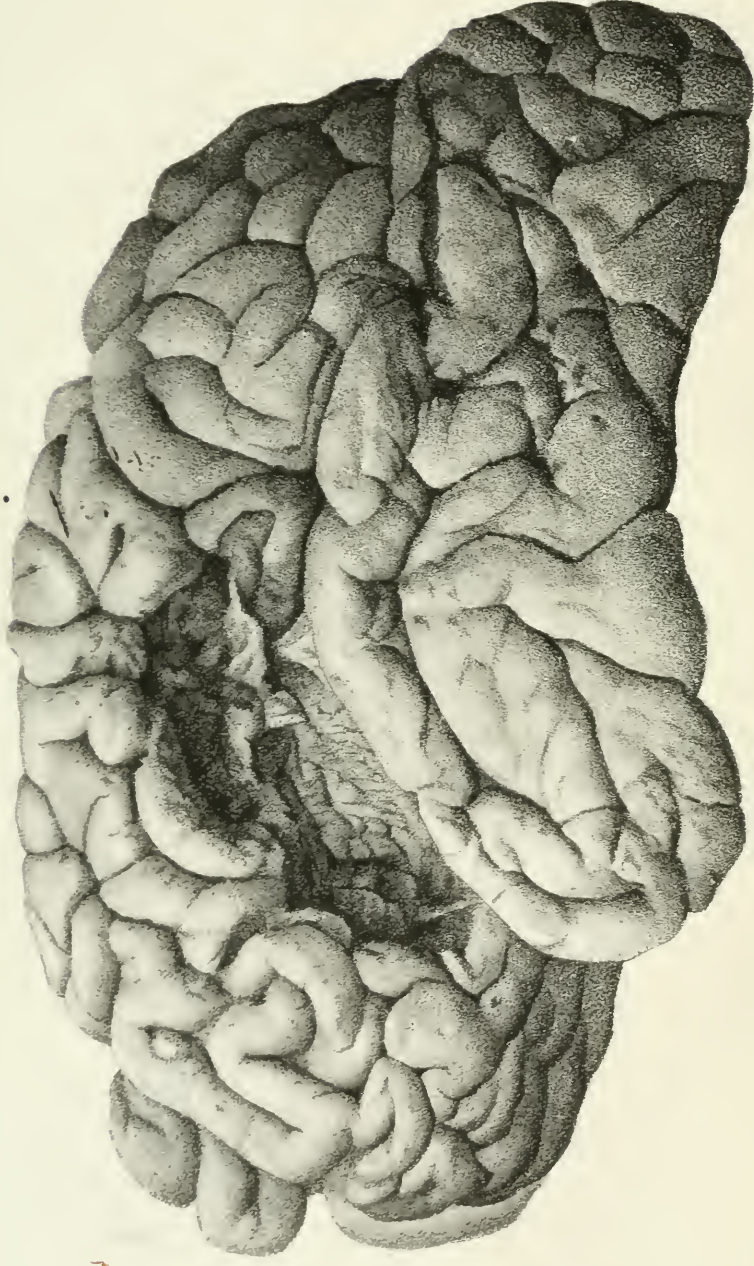




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## Brain Lesion involving Broca's Convolution. No Aphasia.

Reported by Dr J. BATTY TUKE, & J. FRAZER.

THE JOURNAL

OF

MENTAL SCIENCE

(Published by Authority of the Medico-Psychological Association).

EDITED BY

HENRY MAUDSLEY, M.D.,

AND

JOHN SIBBALD, M.D.

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“Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et radii (ut in sensu fit) coire possint.”

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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VOL. XVIII.

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J. AND A. CHURCHILL,

NEW BURLINGTON STREET,

MDCCCLXXIII.

“IN adopting our title of the *Journal of Mental Science, published by authority of the Medico Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanic uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study.”—*J. C. Bucknill, M.D., F.R.S.*

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## INDEX TO VOL. XVIII.

---

- Abolition of seclusion, 57, 360  
Abscess of the brain, 629  
Absinthe, hallucinations from, 285  
Accidents to the insane, 273  
Affection of nervous system after smallpox and typhus, 289  
Aitken's science and practice of medicine (Review), 123  
Alcohol and insanity, 443  
Alcoholism, investigation of, 282  
Ambitious mania, 431  
American Journal of Psychological Medicine, 139  
    "    "    "    Insanity, 129  
Annual address before the New York Academy of Medicine, 151  
Anthropology, a manual of, 125  
Aphasia, 147, 307, 308, 470  
Appointments, 152, 310, 474, 631  
Application of heat and cold in insanity, 303  
Asylums and insanity, 581  
Asylum reports, 1871—262  
    ,, Middle class, at Virginia water, 463  
    ,, Schools in Ireland, 133  
    ,, Notes on the war in France, 439  
Attendants, pensions to, 471  
    ,, rewards to, 472  
Bacon, Dr. G. Mackenzie, misuse of term brain softening, 217  
Blue books, lunacy, for 1871, 549  
Bodily weight in mental disease, 514  
Boyd, Dr. R., tumours of the brain, 522  
Bray, Chas., a manual of anthropology (Review), 125  
Brain, tumours of, 153, 305, 522  
Broca's convolution, lesion involving, 46  
Bromides in nervous diseases, 439  
Bromide of potassium, action of, 592  
Burman, Dr. J. Wilkie, larceny by general paralytics, 536  
Campbell, Dr. John A., the shower bath in insanity, 543  
Causes of insanity, 311  
Census, the, 120  
Cerebral hæmorrhage, a study of, 590  
Chloral hydrate, 118, 135, 595  
Clouston, Dr. T. S., tumours of the brain, 153  
Cold application in insanity, 303  
Corbet, William, obituary of, 470

- Confession, value of, as evidence of guilt, 146  
 Correspondence, 148, 307, 470  
 Cottage and hospital systems in cure of insanity, 132  
 Coxe, Sir James, causes of insanity, 311  
 Criminal psychology, reports, 256  
 Darkened mind, the, poem, 469  
 Darwinism refuted by researches in psychology, 150  
 Delirium tremens, 286  
 Dependence of insanity on physical disease, 133  
 Diagnosis of insanity, 99, 145  
 Dipsomania, 473  
 Diseases of the nervous system, 618  
 Disease and insanity, 133  
 Dæmon of Socrates, the, 248  
 Drunkards, legislation for habitual, 421  
 Ecstasy, notes on, 141  
 Education of the feelings, 591  
 Edmunds, Christiana, case of homicide, 102  
 Elmer, Joseph, practice in lunacy under commissions, 129  
 Embolic processes, investigations of the, 616  
 Emotions, influence of, 8  
 English retrospect in psychology, 618  
 Epilepsy from absinthic intoxication, 288  
 Epileptics, religious sentiment in, 482  
 Experts, medical, 130, 147  
 Fallacies of teetotalism, 473  
 Fat granules in spinal cord and brain (significance of), 445  
 Feigned insanity, 232  
 Fire in the Cambridgeshire Asylum, 148  
 Forensic psychology (German), 450  
 Fraser Dr. John, lesion involving Broca's convolution, 46  
 French psychological retrospect, 276, 431  
 Fright, affecting the mind, 234  
 Galvanization of the sympathetic nerve, observations on, 140  
 Gasquet, Dr. J. R., madmen of the Greek Theatre, 174, 355, 475  
 General paralysis, temperature in, 31  
 „ „ diagnosis of, 235, 432  
 „ „ larceny by patients with, 536  
 German psychological retrospect, 289, 592  
 Griesinger's *gesammelte Abhandlungen* (Review), 424  
 Gull, Sir William, remarks on diagnosis of insanity, 99  
 Hæmatoma auris, 130  
 Haines, Rev. Herbert, obituary, 631  
 Heat, application in insanity, 303  
 Hegelian law, mathematics and physiology, 561  
 Homicide and insanity, 61, 138, 198, 219  
 Homicidal impulse, 122, 212  
 Hospital and cottage systems for insane, 132  
 Howden, Dr. James, religious sentiment in epileptics, 482  
 Idiocy, classification of, 303, 333  
 Illustrations of the influence of mind on body, 8, 178, 369, 578  
 Imagination, influence of, 178, 578  
 Increase of insanity, 229  
 Intellect, geographical distribution of, 226  
 Intellect, influence on body, 178, 369  
 Ireland, Dr. W. W., classification of idiocy, &c., 333

- Jordan, John, case of, 415  
 Laing, or Paterson, Agnes, notes on case of, 198  
 Language, seat of, 302  
 Larceny by general paralytics, 536  
 Lascivious behaviour in idiocy, 450  
 Law and lunacy, handbook of, 254  
 Law and insanity, 136  
 Lead poisoning, monomania and depression from, 233  
 Legal proceedings for alleged illegal detention in an asylum, 294  
 Legal responsibility in insane, remarks on, 306  
 Legal tests of insanity, scientific value, 587  
 Legislation for habitual drunkards, 421  
 Legislation, lunacy, in New Zealand, 498  
 Lesion of brain, involving Broca's convolution, 46  
 Lindsay, Dr. Lauder, lunacy legislation in New Zealand, 498  
 Lunacy, blue books for 1871, 549  
 Mackintosh of Holme case, 294  
 Madmen of the Greek Theatre, 1, 174, 355, 475  
 Mania, ambitious, 431  
 Maudsley, Dr. Henry, medical psychology, 397  
 McFarland, Daniel, a medico-legal study, 139  
 McDowall, Dr. T. W., mental derangement, with progressive muscular atrophy, 390  
 Mechanical restraint in American Asylums, 116  
 Medical experts, their sphere, rights and obligations, 147  
 Medical jurisprudence of insanity, Dr. Ray's, 128  
 Medical psychology, 397  
 Medical relations of insanity, 144  
 Medical treatment of the insane, 267  
 Medico-legal study, case of Daniel McFarland, 139  
 Medico-legal value of confession as an evidence of guilt, 146  
 Medico-psychological Association's meetings, 302, 455, 629  
 Mental capacity in relation to insanity, crime, and modern society, 152  
 Mental derangement, with progressive muscular atrophy, 390  
 Mickle, Dr. W. Julius, temperature in general paralysis, 31  
 Modern scepticism, 119  
 Monomania and depression from lead poisoning, 233  
 Moral contagion, 280  
 Morrison, Dr. William (French), obituary, 152  
 Needham, Dr., homicidal impulse, 212  
 Nervous system, diseases of, 618  
 Number of insane, 269  
 Obituary notices, 152, 470, 631  
 Orestes, 174, 355  
 Pantophobia of some melancholics, 437  
 Paterson, Agnes, notes on case of, 198  
 Pathology of insanity, 270  
 Pathological specimens, 629  
 Pensions to attendants, 471  
 Physical disease and insanity, 132  
 Power above matter, the, 149  
 Progressive muscular atrophy, with mental derangement, 390  
 Protoplasm, 352  
 Psychology of thought and action, 427  
 Puerperal insanity, 615  
 Puerperal insanity, prognosis in, 133  
 Ray's medical jurisprudence, 128  
 Restraint in American Asylums, 116

- Rewards to attendants, 472  
 Rogers, Dr. T. L., proposed abolition of seclusion, 360  
 Scepticism, modern, 119  
 Science and practice of medicine, Aitken's, 123  
 Science and religion, relation between, 430  
 Scientific value of legal tests of insanity, 581  
 Seclusion, abolition of, 57, 360  
 Seclusion, observations on, 463  
 Sex and insanity, 231  
 Shower bath in insanity, 543  
 Significance of fat granules in cord and brain substance, 445  
 Slide to measure thickness of brain substance, 630  
 Smallpox and mental disease, 276, 286  
 Social politics, 151  
 Socrates, demon of, 248  
 Softening of the brain, misuse of term, 217  
 Sophocles, Ajax and Œdipus, 475  
 Spiritualism answered by science, 150  
 Statistical tables, 133  
 Stupor in mental disease, and stupidité, 441  
 Suicidal intention disclosed by insane, 148  
 Sympathetic nerve, galvanization of, 140  
 Syphilitic disease of brain, 302, 599  
 Taylor, James, case of homicide, 70  
 Temperature in general paralysis, 31  
 Theologisches literaturblatt, 149  
 Theory of practice, 236  
 Thought and action, lectures on, 427  
 Tuke, Dr. Daniel H., influence of mind on body, 8, 178, 369, 578  
 Tuke, Dr. J. Batty, lesion of brain, involving Broca's convolution, 46  
 " " " Notes on case of Agnes Paterson, 198  
 Tumours of the brain, and their relation to its mental functions, 153  
 Tumours of brain, remarks on, 305, 522  
 Typhus and smallpox, affections of nervous system after, 286  
 Value of expert testimony, 130  
 Virginia Water, middle class asylum, 463  
 Wallis, Samuel, case of, 67  
 War, on mental derangement in France, 432, 439  
 Watson, Rev. John Selby, case of, 73  
 Weight of body in mental diseases, 514  
 West Riding Asylum, medical reports, 583  
 Winter, Wm., case of, value of expert testimony, 130  
 Wood, Dr. T. O., abolition of seclusion, 57

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## PART 1.—ORIGINAL ARTICLES.

*The Madmen of the Greek Theatre.* By J. R. GASQUET, M.B.

I fear that the subject which I have undertaken will seem a very useless one to most of the readers of the "Journal of Mental Science." As several of our systematic treatises on insanity contain very full accounts of the opinions and treatment adopted by the ancient physicians, it will naturally be supposed that the subject is either exhausted, or at least has no further practical interest. This is, however, by no means the case. As far as the statement of general principles goes, there can be little doubt that the passages scattered amongst the works of Aristotle which refer to insanity are of much greater value at the present day than any of the treatises of the classic psychiatrists.

I hope to be allowed some day to show how completely the teachings of the Stagirite as to the relations of insanity to psychology and ethics are in accordance with those latest decisions of our science which we are striving to impress upon a reluctant public. But since, at the present day, men rightly value the moralisings of the historian much less than the correctness of his pictures of real men and women; so we, too, would no doubt prefer one life-like portrait of a madman, as he was to be seen in Greece or Rome, to all the learned disquisitions, or antiquated medical theories which can be extracted from books. Such a presentment of an actual lunatic of the past should have more than a speculative interest for us. It is an application of the "Law of Concomitant Variations," which has done so much for other branches of medicine, but has been comparatively neglected by us. It will at once be obvious to every one that if we have any means of studying insanity under the very different circumstances of civili-

zation, religion, and culture, which existed in Greece of old, and now prevail in England, we may extend our knowledge of the causes of madness, or confirm what we have hitherto learned. This motive induced me to search the Greek tragedians for examples of insanity on the stage, and I found that, although much which would have served my purpose has been unfortunately lost, enough remains to supply most ample material for study and reflection. Probably many of my readers have less leisure or opportunity for such subjects than I, and I therefore propose giving as clear and literal an account as I can of each of the insane characters met with in the Greek dramas. I almost feel as if some apology were needed for choosing a title which will remind everyone of a most delightful work; but my aim, I must protest, is quite different from that of "The Mad Folk of Shakespeare." A profound analysis of human motives, and a style which combines the flexibility of prose with the dignity of poetry was to be looked for in anyone who undertook to develop the beauties of a classic whom all have read, and whose phrases are familiar to educated Englishmen as household words. I trust that more homely language may suffice for placing before my readers characters which, though full of a grace and beauty, making them "possessions for ever," yet are alien to modern times, and foreign to the English race, in spirit and expression.

I can only hope that the explanations I shall be obliged to give and the closeness of the translations I shall have to make, will not deprive my readers of all share in the keen pleasure which I have experienced in preparing the subject for them.

## I.

The three Greek dramatists who are known to us produced some two hundred plays at least, only eight and twenty of which have reached us entire. This fact alone makes it somewhat hazardous to make any general remarks, or draw any general inferences from the comparatively few plays that remain, particularly as to Æschylus and Sophocles, who have suffered more in this respect from the accidents of time than Euripides. There are, however, certain points which must strike any reader of the Greek tragedies, and need some explanation before we can fully appreciate the manner in which the artists embodied their conceptions of insanity on the stage, and the standpoint from which the audience were able to view them as correct.

Thus it would be at once remarked, as an obvious point of contrast between the madmen of the Greek tragedians and those of their great English successor, that they provide none of the delicate touches and shades of expression and action, which soften the transition from sanity to insanity, and which Shakespeare delighted to employ. One would look in vain for such evidences of the gradual perversion of the mind as have been drawn by the master's hand in *Lear*; and yet there would be no ground for the inference that these could not be represented by a Greek playwright, or appreciated by an Athenian audience.

The fact is that such minute details were incompatible with the general spirit and object of the Greek drama. Schlegel somewhere compares a classical tragedy to an antique statue, and a modern one to a painting; the comparison is plausible, but only partially true. Just as a Greek statue was often painted in full life colours, so a Greek tragedy was frequently decorated with accessories, which necessarily detract from the severe simplicity of the groundwork; for instance, the *Antigone* of Sophocles would rival any modern melodrama in the complexity and abundance of its "sensational" incidents.

The great critic of antiquity supplies a different and more likely explanation. He tells us, with all the force of repetition, that the chief thing, and, as it were, the very soul of a tragedy, is the plot. The description or imitation of character is secondary—"it is like the art of painting, in which, if a man mix confusedly the most beautiful colours, he will not please so much as by drawing a figure in white chalk."\*

This canon, which subordinated strictly the development of character in a narrative to the clearness of action, was first disregarded by Shakespeare. He "unfolds the character of his persons, and presents them under all the variety of forms which they can naturally assume. Of all tragic poets, he most amply developes character."†

In Euripides, above all, there is an abundance of instances where character is indicated by a very few sharp and clear touches from a master's hand, and their further development is left to the audience. Any one can see an example of this for himself, in the admirable rendering of the fell resolve and momentary hesitation of *Medea*, in the last number of the "*Westminster Review*."

Mr. Browning's version of the *Alcestis*, and the many interesting criticisms it has called forth, point to another reason

\* Aristotle, "*Poetica*," cap. 6.

† Ugo Foscolo, "*Ed. Rev.*" xxix., 458.

for this mode of drawing character. The Greek tragedians gave merely the broad outlines of the principal heroes in their plays, in order that each hearer could fill in the details differently, according to his own knowledge of the human heart and experience of its passions. So, too, that consummate master of narrative, Tacitus, sets before us such terrible tragedies as Nero's matricide with an awful brevity, expressly suggesting many alternative motives as possible, and having, perhaps, animated the various actors: while in Dante's Francesca or Pia the art rises to its climax; the story is told in as few words as may be, and all the rest is left to the reader.

We shall find this general rule applies to the portraits of the insane throughout all the Greek plays. In many cases we are free to take any one of several views as to what the poet meant us to infer, and we shall also see that insane actions, and not delusions, are the principal evidences of insanity.

It was natural that, when ordinary bodily disease was considered to be partly of supernatural origin,\* the terrible phenomena of insanity should be ascribed to the direct intervention of some divinity; and this was the case in nearly all the legends which supplied the framework for the classical tragedies. The punishment was sent from heaven for some offence of deeper dye or more unnatural character than usual, the ministers of divine wrath being those "avengers of monstrous crimes, those hounds that might not be outrun," the brown-robed Furies that dog the heels of sinners. The Gracious Ones rose up from the blood of Laius, and stung Œdipus with remorse, over-mastering reason, for the crimes he had unwittingly done; they were evoked by the spirit of Clytemnæstra, and drove Orestes to madness, when he had filled up the measure of the doom of his accursed house.

Their implacable pursuit gave their victim no rest; they chased him into the very sanctuary of Athene, and there chanted over him their witches' song, of which the burden is, once and again—

"Madness, mind-destroying raving,  
A hymn of the Erinyes, reason-chaining."†

\* As the *τὸ θεῖον* of Hippocrates.

† Æschylus, *Eumen*, 329. Sophocles even speaks of madness as a "fury of the mind" (*φρενῶν Ἐρινύς*, *Antig.* 603). So, too,

"Eumenidum veluti demens videt agmina Pentheus  
Et solem geminum et duplicis se ostendere Thebas;  
Aut Agamemnonius scænis agitated Orestes  
Armatam facibus matrem et serpentibus atris  
Cum fugit, ultricesque sedent in limine Diræ."

(Æn. iv., 469.)



Nay, they urge madmen on to desperate deeds, they prompt Athamas to slay his wife and children, they forge the sword on which Ajax falls by his own hand. This accords with the legendary belief that, if any one impure entered their sacred grove at Colonos, they instantly bereft him of reason.

So considered, madness became a part (and that not the least terrible), of the infinite mass of heaven-sent misery, against which mankind is for ever surging, and falling back crushed and broken, as do the waves against some granite headland in a stormy sea. It has been eloquently argued of late that, "not Fate, but Nemesis, was the ruling notion in Greek tragedy;"\* and so far it may be allowed that there was one bright spot on the dark horizon of humanity. Men saw, indeed, that godlessness, and lust, and cruelty, were punished; but this could avail little for their comfort when they learned that the heaviest stripes were reserved for the punishment of unconscious crime, that the gods appeared to observe no due proportion in their government, and that one frequently commanded what another subsequently punished. Such teaching, spite of the reverential awe of Æschylus, the moralities of Sophocles, and the frequent divine interpositions of Euripides, must have helped to widen the gulf between godliness and morality, to which itself was due. The divorce between morality and religion is the most striking difference between the ethical bearings of heathenism and Christianity. No one, I suppose, will now deny that the Greeks and Romans had among them teachers of the loftiest morality, and men who would be, even now, examples of many elevated virtues; and every one will admit that they were exceedingly religious; but their religion was not moral, nor their morality religious.

The Greeks, then, were confronted, as men have ever been, by the appalling mass of misery and wretchedness in this world, which is yet so pleasant and so hard to leave; and they had to seek for their own solution of this surpassingly important enigma. In their earlier and better days there had been frequent glimpses of the same issue from the difficulty as Job and David had, in their faith in a moral Governor of the world, who, although He may allow the unrighteous to flourish for a season, will in the end surely do justice. But, as I have said, the Greeks were gradually losing this clue to the mystery of life, and another was needed to take its place.

In their moments of depression and despair they were almost ready to accept that solution of the difficulty which

\* "Greek Tragedy and Euripides," in "Westminster Review," January, 1872.

Buddhism has raised into the most wide-spread philosophy in the world. Over and over again, in the tragedians, as in the historians and philosophers, of Greece, we hear voices, inspired by an unutterable sadness, which cry out that it were best never to have been born, but the next best thing were to die; that death is the great physician, the deliverer to be welcomed by all. But the desire and hope for annihilation, which brought comfort to the dreamy and fatalist Asiatic, was not enough for the keen and restless Greek. His refuge lay rather in action, in forming to himself a worthy ideal, and in carrying it out, undeterred by the menaces of his fellow-men, or the capricious tyranny of his gods, who might, indeed, have power over his fortune, his happiness, or his very life, but who were impotent to break or bend his lofty soul.

The central idea of Greek tragedy is not the unopposed and inexorable action of a Fate or a Nemesis; it is to be found in its perfection in Prometheus, chained to the rock by brute Violence and Force, at the bidding of his inferior in all but might. Of one thing his divine enemy could not rob him—he took all creation to witness, that in his mortal agony, he receded not at all from his purpose, and was tortured alike unjustly and in vain.

The same persistence in a great resolve, in spite of all adverse fortune, marks every hero of Æschylus; Sophocles carries it to a climax of unsurpassed beauty in depicting Antigone, a lone and defenceless girl, rendering the last offices of sepulture to her brother, though she thereby loses all that she loves, and her very life; while Euripides' favourite virtue, *ἔψυχία*, has been so eloquently illustrated of late that I need only refer, in passing, to the heroism of Alcestis or Hecuba, and Medea's or Phædra's equal obstinacy in guilt.

It would be easy to fill pages with quotations from the classics to prove that this became the general belief of the ancients. I will refer only to two instances—Aristotle's loving descriptions of greatmindedness and courage are known to all who have read his Ethics; and admiration of the man who would remain firm of purpose amid the ruins of a falling world inspired Horace with one of the grandest of his odes.\*

I may seem to have been wandering far from my own subject, but this is not the case. Whether the desire to imitate this ideal *καρτερία* had any decided bearing on insanity in real life we cannot tell;—probably not, if we may judge by the

\* Aristotle, Eth. Nic. iii., 9, 10, 11; v., 4. Horace, iii., Carm., 3 vv. 1-9.

little influence which similar aspirations have on our own conduct at this day. But it is tolerably clear that it must have had a very great effect in determining the limits within which madness, or indeed any mental state, could be represented on the stage without being a scandal to the audience. The hesitations of Hamlet, the flickering sanity of Lear, the touches of remorse in Macbeth, could hardly have been evoked from a Greek mind, or presented without offence to Athenian hearers, who would, on the contrary, have recognised and applauded the "Greek simplicity" of Constance, the perseverance of Queen Margaret to the bitter end, or the impenitence of Lady Macbeth even in her madness.

The moral and religious atmosphere, then, in which the Greek tragedians lived, led them to the same manner of depicting insanity as the æsthetic rules of their drama would also have required. We shall find, almost without exception, that the forms of madness they describe are such as begin acutely, and pass more or less rapidly into dementia, or are cured, rather than those which begin insidiously, and are slower in their progress.

It has been, indeed, suggested that the acute forms of insanity are really more common relatively in the south than in the north of Europe; but the statistics relied on\* are not sufficiently accurate to be of much value, while direct observation in Italy and Turkey† seems to show that no such difference exists. In any case, I have said enough to prove that the representations of insanity in the tragedies cannot be received as evidence on this point, and I shall reserve any inferences which may be drawn from Aristophanes and other authors, until my concluding remarks.

I have now reviewed sufficiently (perhaps my readers may think at too great length) all those rules and surroundings of the Greek stage, which ought to be known, if the reader of a Greek play now would place himself in the same point of view for judging it, as the audience occupied two thousand years ago.

In my next paper I propose to bring before my readers the only character whose insanity is presented to us by all three tragedians, the saddest figure of the whole Greek drama—"tristis Orestes." Under circumstances so nearly identical

\* "The Ætiology of Insanity," by Dr. J. Crichton Browne, in "Brit. & For. Med. Chir. Rev.," for April, 1867.

† See "Rapport Statistique sur l'Asile d'Aliénés Solimanié à Constantinople, par le Dr. L. Mongeri." Constantinople, 1867.

with those in which Hamlet has been represented by our great English tragedian, that we cannot look upon the coincidence as undesigned, the Greeks bring their hero forward in a manner entirely opposed to that of Shakespeare. A better illustration of all I have been saying could hardly be found, and it will be seen that, just as German critics have claimed Hamlet as the type of the modern Teutonic mind, so the son of Agamemnon is a representative character of the Greek world of old.

(*To be continued.*)

*Illustrations of the Influence of the Mind upon the Body in Health and Disease, with especial Reference to the Imagination.* By DANIEL H. TUKE, M.D., M.R.C.P., late Visiting Medical Officer to the York Retreat.

(*Continued from page 350, vol. xvii.*)

INFLUENCE OF EMOTIONS UPON THE ORGANIC OR VEGETATIVE FUNCTIONS.

(IV.) *The emotions powerfully excite, modify, or suspend the Organic Functions, causing changes in nutrition, secretion, and excretion, and thereby affecting the development and maintenance of the body.*

We have in the consideration of the influence of the emotions upon the blood-vessels anticipated, to some extent, the fundamental principle of this section. The important part played by the vaso-motor nerves was there dwelt upon, chiefly in connection with the vascularity of the skin, which so manifestly results from emotional excitement. The circulation of the blood through the various organs of the body being affected by the same cause, the action of the emotions in inducing well-marked changes in nutrition and secretion is not extraordinary. But the question which at once arises, whether these variations in the circulation of the blood in the organs and tissues, adequately account for the alterations in nutrition and secretion, now referred to, deserves some consideration here. Let us first notice the conclusion arrived at by Cl. Bernard. Admitting\* that the nervous system exercises an incontestable influence upon these processes, extending to their chemical phenomena, he maintains that all this

\* *Leçons sur les Propriétés des Tissus Vivants*, 1866.

can be accounted for by the action of the nervous system upon the circulation of blood, and that there is no occasion to have recourse to the direct influence of nerves upon nutrition and secretion. He refers to the starch transformed in a vegetable cell into sugar, due to the action of certain ferments, as also some special conditions of temperature; and points out that in animals we find the same conditions, the same ferments, with this difference only—in vegetable life the phenomenon is produced under the influence of the sap, germination, &c.; in animals, on the contrary, it is dominated by the nervous system (though that this is not essential, is seen in the embryo), “which acts directly upon the vessels, and the modifications thus produced in the vascular system react upon the chemical phenomena.” He believes that both sympathetic and cerebro-spinal motor nerves act upon the vessels: the former acting as moderators, contract them and lessen the supply of blood; the latter, on the contrary, when stimulated, cause the vessels actively to dilate. “Voilà tout le mécanisme de l’influence nerveuse.” The action of the chemical phenomena is augmented whenever the nerves derived from the cerebro spinal system antagonise or paralyse the influence of the sympathetic nerves, thus allowing of more blood and a higher temperature; phenomena which may result from the suspended action of the sympathetic, or the increased action of the cerebro-spinal nerves. On the other hand, when the sympathetic is stimulated, and the calibre of the vessels is lessened, the chemical phenomena diminish. In the illustration he employs of the sub-maxillary gland, the antagonizing action of the chorda tympani upon the sympathetic is supposed to cause an afflux of blood to the gland, the cells of which contain certain special chemical principles, which this blood serves to dissolve, and so excites the function of the gland. Secretion is the peculiar characteristic of the glands, as contraction is of muscle; “the accumulation of a peculiar compound within its primitive cells is the exclusive privilege of the glandular tissue; a watery menstruum is then poured forth to dissolve this substance and convey it into the excretory ducts.” A sufficient supply of blood is required to create the ferment, or active principle of each secretion. Motion is necessary for this, although a chemical process; and for motion, muscle is indispensable. Thus, although the nervous system cannot create new histological elements, “it sets forth their characteristic properties;” it can retard or accelerate the secretive process, and

this is done by the muscular apparatus. "A new chemical compound is created through its action." On this hypothesis, therefore, the nerves do not directly interfere with organic chemical phenomena as galvanism acts upon inorganic matter, but only through the circulation. "The terminal ramifications of the nervous system do not float in the liquids of the economy," and therefore a distinct mechanism — the muscular apparatus of the vessels—is required to enable these nervous fibres "to modify the composition of these fluids." ("Medical Times and Gazette," April 27, 1861). But sufficient as the position taken by Bernard is for the purpose of showing how the emotions must influence the organic functions by acting upon the nerves (whether sympathetic or cerebro-spinal) which regulate the calibre of the vessels, it is not by any means proved that Bernard's exclusive position is the whole truth. Indeed, he himself, towards the close of his lectures (Aug. 17, 1861), seems to have some misgivings, for he observes that, however clear the action of the constrictor nerve on the vessels may be, that of the dilator is "infinitely more difficult of comprehension," appearing "to stimulate the dormant activity of the tissues to which it spreads, creating secretion in glands, contraction in muscles, and phenomena of a different nature in other parts;" and then he immediately expresses a doubt whether the nerves which give rise to these effects and those which dilate the vessels are, after all, identical. However, as to the main point, he, in the work which we have already cited, published five years afterwards (1866), still expresses himself strongly in favour of the view that the contraction and dilatation of vessels constitute a sufficient explanation of the acknowledged influence of the nervous system upon the phenomena of nutrition and secretion; and, so far as we know, he continues to be of the same opinion. But, be this as it may, Professors Rolleston, Laycock, and others, who have not been content with this doctrine, have given, what appear to the writer, good reasons for supposing that a directly trophic action may be conveyed through other than vascular nerves, and that through them, therefore, the emotions may exert an influence, as well as through the circulation. The former holds ("Quart. Journ. of Science," April, 1870) that it is all but demonstrable that nerves may act directly upon cells, pigmentary, secretory, and other. He does not, however, think that it follows, considering the varying functions of nerves according to the tissues to which they are distributed, that there is a distinct set of

trophic nerves. Prof. Rolleston observes that in regard to the influence of defeat upon an army, in making it readily succumb to dysentery, scorbutus, and malaria, or of gaol life upon prisoners, there is no clear indication as to whether they are produced by vascular changes or by direct action of nerves, which cause intracellular molecular disturbance. Other instances unquestionably show, he thinks, that nerve force can act directly on tissues without the intervention of blood vessels. Thus, Brodie records the case of a man who suffered from forcible separation of the 5th and 6th cervical vertebræ, with effusion of blood within the theca vertebralis and laceration of the cord, and in whom the respiration was imperfect, the pulse weak, and the countenance livid. He died in 24 hours; yet the temperature (on the inside of the groin) rose to  $111^{\circ}$ , and immediately after death it was found to be the same; the explanation being that "there was a showering down, from the irritated and isolated segments of the spinal cord, of such an amount of stimulus as was competent to throw the tissues of the lower parts of the body into active chemical change."

Professor Laycock ("Medical Times and Gazette," Jan. 14, 1871) protests against the notion that the action of the nerves on nutrition is restricted to the regulation of the vessels, and extends their operation to the chemical changes which take place in the tissues, and to the regulation of the action of the lymphatics and absorbents. He holds that as tissues are nourished independently of vessels, the trophic system is before and more general than the vaso-motor. Two kinds of *vis nervosa* are here recognised—"The one, a molecular energy necessary, like heat, to all healthy tissue work; the other, regulative of its function and application. The latter, therefore, is needed, not to the end that the tissue changes shall take place, for they can and do go on independently of nerve, but that they shall take place in their proper or normal order." He assumes corresponding anatomical seats, the executive and regulative being as distinct as, and analogous to, the motor and sensory. The trophic centre is fixed in a basilar region, which includes the medulla oblongata, cerebellum, and cerebral ganglia.

While then we can entertain no doubt as to the fact that mental states dilate and contract the small vessels which convey nutriment to the cells of glands and tissues, and that this alone would go far to account for the phenomena which result from emotional excitement, it may surely be inferred

from other facts that, in addition to this channel of influence, another and independent one exists, by which there is a direct communication between the feelings of the mind and the organic cells. Herpes may affect the lower half of the nose, and along with this the interior of the eye may be inflamed, indicating a common cause—disturbance of the function of the oculo-nasal nerve. Mr. Hutchinson, who pointed out this circumstance to the writer, has in his possession a very interesting pathological specimen—namely, a skull, in which most of the bones of one half of the head are affected by exostosis. In this case he considers nutrition to have been interfered with in the course of sensory, independently of vaso-motor nerves. Cases in which neuralgia is accompanied by herpetic eruptions point in the same direction, although it is said in reply, either, that sensory irritation is reflected on the tissues through motor or sympathetic nerves, or that vascular changes constitute a common cause; but the fact remains that lesions of nutrition may be located according to the distribution of sensory and not vaso-motor nerves. A woman was admitted into the Great Northern Hospital, under Dr. Murray's care, on account of a tumour. The internal half of one eyebrow and the corresponding portion of eyelashes were perfectly white, she being a brunette. Her statement was, that having gone to bed well, three or four years ago, she was attacked during the night with a very severe spasmodic tic, which lasted only a few minutes. In the morning, the hair was blanched, as above described, and has remained so ("Lancet," March 6, 1869). Professor Laycock cites the observation of Brown Séquard, that in guinea pigs injury of certain nerve-centres caused the hair to become white over the region deriving its nerve-supply from the centre injured. Dr. Carpenter points out that "atrophy of parts supplied by the spinal nerves is much greater when the sensory as well as the motor roots are involved, than when the latter alone are paralysed," but refers it to the fibres of the sympathetic being incorporated with the cerebro-spinal, through the ganglia of the sensory nerves. A strong point in favour of the view that vaso-motor nerves are, at least, not the only channels of trophic influence, is the fact that marked changes in vascularity so frequently occur without commensurate changes in nutrition. But this would be met by the assumption that the active dilators of Bernard do, *when stimulated by a sensory or, at least, an afferent nerve*, not only admit more blood, but directly excite the functional activity of



gland or tissue cells in response to this sort of cry for help. In this way, and not because it conveys any efferent influence to the part, disturbance of a sensory nerve might cause mal-nutrition or mal-secretion. In Bernard's experiments on the nerves supplying vessels, the evidence supports the conclusion that it is not through sensory, but through motor nerves that the organic functions are acted upon. Wasting of muscles follows, sometimes at least, paralysis of motor nerves. It is remarked by Dr. Jackson that paralysis of the gustatory nerve does not, and that paralysis of the hypo-glossal does, produce wasting of the tongue. In regard to secretion, although vivisections seem to prove that it can be arrested or excited through vaso-motor nerves, the peripheral termination of sympathetic nerves, as traced by Pflüger, in glands, suggests their direct action on the secretory process, either as efferent nerves, or as afferent nerves the current of which is reflected upon those which regulate the calibre of the vessels. As to the two systems—the sympathetic and cerebro-spinal—they are so intimately united, that difficulties present themselves, whatever hypothesis we adopt.

*Blood.*—The direct influence of emotional excitement upon the blood itself appears to be exhibited in the case recorded by Hunter—that of a man who died in a fit of passion, and in whom it was found fluid—as in death from lightning or a blow on the stomach. Dupuy's experiments on animals (after being hunted) are adduced to show that mere rapidity of the circulation diminishes the fibrin in the blood. So in over-driven animals, the quality of the blood is injuriously changed. But in these instances it is quite possible that fear may have had its share of influence. On how many occasions does active bodily exercise in man inordinately quicken the circulation, without any bad effect as regards the blood! Dr. Wilks ("Medical Times and Gazette," Feb. 1, 1868,) observes, "We hear sometimes of fear turning the whole mass of the blood. I believe this is literally correct. I have seen now so many cases of anæmia, some of them fatal, occurring upon a severe shock of the nervous system, that I have no doubt of the fact." He then refers to the *modus operandi*, but confesses his ignorance thereof, until the physiologists will inform us in what part of the body the blood is manufactured. Those who explain everything by the varying calibre of the blood vessels, would fully admit that mental states influence, not only the amount of the blood in a vessel during a given period of

time, but also thereby its chemical composition. Bernard tries to prove, experimentally, how the nervous system controls (and, therefore, how emotion may influence) the absorption of oxygen by the blood in the lungs, and its combination with the histological elements of the tissues. As his experiments on the relation of secretion to the blood prove that during this process the blood in the veins of the glands, which is usually dark in colour, becomes of a bright arterial scarlet, and as he accounts for these phenomena by the opposite action of the two classes of nerves—the contracting and dilating—which supply the vessels;—results which may be artificially induced by *section* and *galvanism*—it follows that even if we go no further than Bernard's mechanical views, varying emotional states would readily affect the relative amount of oxygen and carbonic acid gas in the blood. As the transformation of the effete materials of the tissues, taking place in the capillaries, requires time, and therefore a certain stagnation of blood for the operation, if the emotions interfere with this condition, it is easy to see that there will be a tendency for arterial blood to pass unchanged into the veins, as actually occurs when the sympathetic nerve is divided. Changes of psychical origin in the quantity and quality of the blood, and consequently in secretion and nutrition, may thus receive at least a partial explanation by our application of Bernard's experiments. Increase of temperature, and thereby of certain chemical phenomena, must also be included. At the same time that changes in the chemistry of the blood may be produced in a more direct manner, is, to say the least, very probable. The knowledge of Bernard's experiments did not prevent Brodie remarking that the influence of nervous power “in causing the blood to undergo changes in its chemical composition,” as well as in “affecting the secretions,” is very analogous to the effects produced by the voltaic battery.

*Nutrition.*—The fact pointed out by Bichat, that nutrition does not seem to receive so direct an influence from the emotions as secretion, circulation, digestion, and respiration, is attributed by him to the absence of a distinct focus or viscus, whose state we can compare with that of the mind. Disseminated throughout the organs, their phenomena do not strike us in the same way as when concentrated in a narrower space, but they are not the less real, as witnessed in the bodily contrast between the man who passes his life in misery, and him who passes it in mental tranquillity. Bichat (writing in 1800) recalls and contrasts the time when fear, sadness, and the

desire of revenge seemed to hover over France, with that in which security and abundance excited the gaiety so natural to his countrymen, and points to the difference in the exterior aspect of their bodies, in proof of the influence of the emotions on nutrition. If space allowed, I could give several interesting examples of the same influence as the result of the late war in France.

Hunter considered that nothing shows the influence of the mind upon the body more strongly than the effect of maternal anxiety in a hen when hatching. "A hen shall hatch her chickens, at which time she is very lean; if those chickens are taken from her she will soon get fat, but if they are allowed to stay with her, she will continue lean the whole time she is rearing them, although she is as well fed, and eats as much as she would have done if she had had no chickens."—(Posthumous Papers, 1861. Vol. i, p. 261.)

Care, it is said, will kill a cat; and its effect, as regards man, is too patent to need illustration. As pointed out by Fletcher, the convict may grow fat even on prison fare, simply because his doom is sealed and he has no anxiety. When considering the influence of the emotions upon the blood-vessels, we showed that all the signs of those changes in nutrition which are comprised under the term "inflammation," may be so caused. We proceed now to give illustrations of definite lesions of nutrition as observed in the changes which frequently take place in the *skin* and *hair*.

As, without actual disease, we see the influence of moral causes upon the functions of the skin, fear checking perspiration, and other emotions causing congestion, it is not surprising that definite eruptions should occasionally have a similar origin. The transition to eczema, impetigo, &c., is not difficult to understand.

Mr. Hutchinson informs me, in connection with his experience at the London Skin Hospital, that patients frequently attribute the affections of the skin under which they labour to fright and other moral causes; but I have not been able to obtain any statistics. The relation between some cutaneous diseases and the distribution of nerves, bears upon this subject. The instance of shingles has been already referred to in connection with the nerves engaged in nutrition. When severe neuralgia is followed by herpes in the course of the affected nerve, we can see how possible it is for distress of mind to occasion this cutaneous disorder.

Cazenave, when enumerating the causes of skin-diseases,

remarks that "strong mental emotions, and grief in particular, exercise a remarkable influence." Speaking of impetigo, he says that grief and fear sometimes produce the disease. Bateman mentions two cases in which great alarm and agitation of mind caused this affection.

In his lectures, M. Biett used to relate to his pupils several cases which showed this influence. In particular he referred to a striking example exhibited in a very severe form of *lichen agrius*, occurring within twelve hours of the receipt of unwelcome intelligence. In the "Medical Times and Gazette," July 13, 1867, the case is reported of an engineer who, treated for syphilis, from which he remained free for six years, became, a week after hearing of the fall of a bridge he had built, the subject of "syphilitic impetigo of the scalp and beard." Gratiolet observes that melancholy dries up the skin and induces a number of herpetic affections.

Of the influence exerted over warty excrescences on the skin by hope and confidence directed to the part, many illustrations might be given, but the space at our command will not permit us to pursue this subject. Of the fact there can be no reasonable doubt.

*Hair.*—The influence of grief or fright in blanching the hair has been generally recognised.

" For deadly fear can Time outgo  
And blanch at once the hair."—MARMION.

It has been a popular rather than a physiological belief that this can occur "in a single night." No one doubts that the hair may turn grey, gradually, from moral causes, and this is sufficient proof of the mind's influence upon the nutrition of the hair. I have known alternations in the colour of the hair (brown and grey) corresponding to alternations of sanity and insanity. Some entertain doubts as to sudden blanching of the hair, but I do not believe them well founded, and can vouch for the truth of the following interesting case:—

Thomas W., about 20 years of age, the son of a milkman, was tall, fleshy, good looking, slightly bronzed, hair intensely black, stiff, wiry, and rather inclined to curl. His general appearance was that of a healthy and well formed man, used to light work, but much exposure in the open air. In the year 18— one of his thoughtless companions told him (what was not true) that a girl in the town was going before the magistrate on the morrow to swear him father of her child. Poor W. was dumb-founded. The announcement had given his whole frame a severe shock; the gall of bitterness had entered his heart,

and the mind was under the baneful influence of its power. He hastened home, and sought relief in his bed room. Sleep was denied him, for his brain was on fire. He saw nothing but disgrace coming from every angle of the room. Such was the mental agitation produced by a silly trick! Early morning brought no relief; he looked careworn, distressed, and his hair was changed from its natural tint to that of a light "iron grey colour." This to him was a great mystery. In the course of the following day the stupid trick was explained, but the ill effects of it lasted for a long period. Nearly twenty years after, although his health was fair, the mental powers retained signs of the severe shock they had received; his hair was perfectly grey, and a medical friend of mine who met him received the impression that he would carry the marks of this folly to his grave.

Dr. Laycock, in speaking of pigmentation of the hair, asks whether greyness and baldness are due to loss of tone of the hair bulbs solely, or are ultimately associated with trophic nervous debility of certain unknown nerve centres. He points out that the regional sympathy which characterises trophesies is well marked, and that as regards baldness it extends from two points, the forehead and the vertex, ending at a line which, "carried round the head, would touch the occipital ridge posteriorly, and the eyebrows anteriorly." So with the beard, &c. In connection with a succeeding remark, that the eyebrows are a clinical region in brow ague, herpes, and leprosy, the case already referred to, of a woman who suffered in the night from a severe attack of tic, and found in the morning that the inner half of one eyebrow and the corresponding portion of the eyelashes were perfectly white, may be mentioned. Laycock points out the fact that the hair over the lower jaw is almost always grey earlier than that over the upper jaw, and that tufts on the chin generally turn white first.—(Op. cit., May 13.)

Mr. Paget, in his "Lectures on Nutrition," has recorded the case of a lady with dark brown hair, subject to nervous headache, who always finds, the morning afterwards, patches of her hair white, as if powdered with starch. In a few days it regains its colour. Dr. Wilks says he has on more than one occasion had a lady visit him with jet black hair, and on the morrow, when seen in bed, it had changed to grey. Bichat, opposing the scepticism of Haller, asserted that he had known at least five or six examples in which the hair lost its colour in less than a week; and that one of his acquaintance became almost entirely blanched in a single night, on receiving some distressing news. There is no reason to call in question the statement that Marie Antoi-

nette's hair rapidly turned grey in her agony. We have it on the authority of Montesquieu himself that his own hair became grey during the night, in consequence of receiving news of his son which greatly distressed him. Dr. Laudois, of Greifswalde, reported not long ago a case in "Virchow's Archives," in which the hair rapidly turned white. But I have not any particulars at hand beyond the fact that on carefully examining the hair, he found that there was "an accumulation of *air-globules* in the fibrous substances of the hair." Erasmus Wilson read a paper at the Royal Society in 1867 on a case of much interest, a *resumé* of which I subjoin in a note.\*

The falling off of the hair is too frequent a result of anxiety, or other depressing emotion, to escape common observation. A case reported in the "Lancet," of May 4, 1867, forms an excellent illustration.

A man of nervous temperament began business as a draper in 1859. At that time he was 27 years of age, in good health, though not very robust, unmarried, and had the usual quantity of (dark) hair, whiskers and beard. For two years he was in a state of *perpetual worry and anxiety of mind*, and his diet was very irregular. Then his hair began to come off. He declares that it literally fell off, so that when he raised his head from his pillow in the morning, the hair left on the pillow formed a kind of cast of that part of his head which rested on it. In a month's time *he had not a single visible hair on any part of his body*—no eyebrows, no eyelashes; even the short hairs of his arms and legs had gone; but on the scalp there could be seen, in a good light, patches of very fine short down. This was in 1861. Medical treatment proved of no avail, and he was finally advised to do

\* Every hair of the head was coloured alternately brown and white from end to end. The white segments were about half the length of the brown, the two together measuring about one-third of a line. Mr. Wilson suggested the possibility of the brown portion representing the day growth of the hair, and the white portion the night growth, and this opinion was corroborated by the remarks of Dr. Sharpey and others of the Fellows who took part in the discussion. Under the microscope, the colours of the hair were reversed, the brown became light and transparent, the white opaque and dark; and it was further obvious that the opacity of the white portion was due to a vast accumulation of *air-globules*, packed closely together in the fibrous structure of the hair, as well as in the medulla. There was no absence of pigment, but the accumulation of *air-globules* veiled the normal colour and structure. Mr. Wilson observed that as the alteration in structure, which gave rise to the altered colour, evidently arose in a very short period, *probably less than a day*, the occurrence of a similar change throughout the entire length of the shaft would explain those remarkable instances, of which so many are on record, of sudden blanching of the hair; and he ventured to suggest that during the prevalence of a violent nervous shock the normal fluids of the hair might be drawn inwards towards the body, in unison with the generally contracted and collapsed state of the surface, and that the vacuities left by this process of exhaustion might be suddenly filled with atmospheric air.—("Lancet," April 20th, 1867.)

nothing. So long as his anxiety continued, the hair refused to grow, but by the latter part of 1865, his business became established, and, coincidentally, his hair re-appeared, and when Mr. Churton, of Erith, reported the case, he had a moderately good quantity of hair on the head, very slight whiskers, rather better eyebrows, and the eyelashes pretty good.

The influence of painful emotions in causing grey or white hair and alopecia has been sufficiently illustrated, and it would have been interesting to adduce a reverse series showing the opposite effects of joy. But it is a very different thing to restore to its healthy habit the function of a tissue whose pigment has been removed by slow mal-nutrition, or by sudden shock. I may adduce such a circumstance as the following, however, to show that hair which has turned grey in the natural course of life, may, by the stimulus of specially favourable events, become dark and plentiful again.

An old man (æt. 75), a thorough out-and-out Radical—even the cancelli of his bones were so impregnated with a thorough disgust of the Government of George the Fourth that he threw up a lucrative situation in one of the Royal Yards, and compelled his youngest son to follow his example—insisted that his wife, also aged (about 70), toothless for years, and her hair as white as the snow on Mont Blanc, should accompany them to the land where God's creatures were permitted to inhale the pure old invigorating atmosphere of freedom. About six or seven years after their departure, a friend living in New York gave an excellent account of their proceedings. Not only could the old man puff away in glorious style, and the son do well as a portrait painter, but old Mrs. — had cut a new set of teeth, and *her poll was covered with a full crop of dark-brown hair!*

*Teeth.*—Many observations might be made in reference to the nutrition of the teeth; but I must content myself with adding to the favourable results stated in the last case, a single example of the effect produced by unfavourable influences. "I have recently known," says Marshall Hall, "the teeth to decay in an extraordinary manner in a few weeks, as the effect of painful emotion, more allied to fear than any other." ("Pract. Obs.," p. 40.)

Passing on to the influence of the emotions on *secretion*, we commence with the sudoriferous glands.

*Sweat.*—The ordinary action of mental excitement in accelerating the cutaneous circulation and secretion is familiar enough. This state of the system may be aroused by painful, no less than by pleasurable emotion. For example: when

Warren Hastings was thrown into a passion by his recall home, we are told that "the sweat ran down his face" in an extraordinary manner. Of interest in connection with an experiment of Bernard, in 1851, which showed that division of the cervical branch of the sympathetic in the horse caused increased perspiration on the corresponding side, is the record by Gratiolet of a case in which emotional excitement had the effect of causing the perspiration of the head to be afterwards limited to one side. The sweats of terror are cold. The vaso-motor nerves are so influenced as to cause the capillaries to contract, the temperature is lowered, and insensible is converted into sensible transpiration. If the amount is actually increased, there is probably an escape of fluid rather than augmented secretion. Checking of secretion is seen in emotional anasarca. Many medical authorities have referred to the fact of anasarca following violent emotion of a painful character (innervation lowered). Bateman witnessed the extraordinary influence of alarm upon a poor woman; a sudden universal anasarca following, in one night, the shock occasioned by the loss of a small sum of money, which was all she possessed ("On Cutaneous Diseases," p. 150). Copland classes such cases under "primary asthenic anasarca;" the vital tone of the small vessels being lowered, the excretory function of the skin is suspended, and serous effusion from the blood vessels follows. Why, in some, this serous effusion remains in the cellular tissue, and in others is poured forth through the ducts, is difficult to say. Possibly spasm of the ducts may have something to do with it. In the following instance, a very large amount passed away through the ducts; and it becomes a question whether fear in this case did not act simply in exciting the sudoriferous glands to excessive action. The man's fear was of an anxious, fidgetty kind, which was more likely to arouse than to check the function of the glands. Such a case is full of interest and instruction.

John Ford, an officer in the Royal Navy, in George III.'s time was invalided home from the West Indies for dropsy. Twelve months afterwards he was discharged from the Naval Hospital as incurable, from which date to the time when first seen by a friend of mine, he was under the paternal medical care of a host of ichneumons, who fed on the exchequer of his profits *secundum artem*. As to the disease, it was a matter of no moment—the longer he lived to swallow their trash, the better for them. "They looked on and grinned, grinned and looked on again." Dr.— says he found him propped up in bed



at an angle of  $60^{\circ}$  with an anxious and cadaverous countenance. The room was neatly and profusely embellished, not with pictures, but with empty phials, pill boxes, and gallipots. He had been well drugged; his system was saturated with nearly nine-tenths of the articles mentioned in the "Materia Medica." My friend advised him to throw physic to the dogs for the present and to submit to the only remedy (in his case) to save life, a *surgical operation*, and that as speedily as possible. This roused him from his lethargy; it was like a powerful electric shock. Alarmed, he shook like a poor wretch under the influence of the cold stage of ague. In a subdued voice, he said (as his excitement partially subsided), "I never can submit to an operation; I would rather die!" "If that be your determination," it was replied, "your case may be considered hopeless; all the drugs in the world will not save you. At all events I will visit you to-morrow morning to know your decision." Accordingly Dr.— called on him, but the scene was changed. Soon after his departure, he appeared to be greatly distressed both in mind and body; groaned aloud, wept much, and was very restless. The word "Operation" had worked wonders—in fact, a miracle. A copious *perspiration* was produced, and the steam, like that from boiling water, issued from every pore in his skin. The nurse said that more than two gallons of fluid had passed from him during the night. The bedding, consisting of feather bed, mattress, blankets and sacking, were saturated through and through with serum, and the floor was flooded with it. The patient recovered, and was appointed to a ship in commission going to Jamaica. Two years after, he died from the effects produced by yellow fever, was buried in one of the "Campo sanctos," and was no doubt eaten by the land crabs in less than a week.

Some emotions affect the cutaneous secretions, not only in regard to amount, but odour. In this and the vitiated intestinal secretions which occur when fear acts powerfully upon the system, it is reasonable to connect what in man appears to be a useless, and indeed highly inconvenient, result with the analogous occurrence in animals in which flight from the pursuit of the enemy is often secured.

*Urine.*—The curious influence upon the renal secretion of a sound which grates upon the mental ear of the listener, referred to by Shakspeare in a well-known passage, is no doubt exceptional.

"And others, when the bag-pipe sings i'the nose,  
Cannot contain their urine."

The action of mental anxiety in causing a copious discharge of pale fluid is familiar enough to all, especially to the medical student about to present himself for examination, the amount being in a pretty direct ratio to his fear of being

plucked. The action of the skin is usually checked, the extremities are cold, and the kidneys have to pump off the extra amount of fluid retained in the circulation. Müller calls it an example of "suppression of the urine," and though this seems paradoxical, there is in fact a non-elimination of the substances usually separated from the blood, compared, at least, with the aqueous character of the whole excretion. Of complete emotional suppression of urine I do not know an instance. The odour may be affected by the emotions, in man as in animals.

The alleged changes in the chemical composition of this secretion, the result of mental disturbance, are of much interest, but the sources of fallacy in their investigation are great and may lead to very erroneous conclusions. Dr. Prout states that the depressing passions, particularly anxiety or fear, will in many predisposed individuals cause a deposition of the triple phosphates in the urine. ("Stomach and Renal Diseases," p. 281.) In adducing proof that the functional activity of the nervous tissue causes its disintegration by the agency of oxygen (in the blood) Dr. Carpenter refers to the increase of alkaline phosphates in the urine after much wear of mind, whether emotional or intellectual, and alludes to "more than one case of this kind occurring among young men, whose anxiety for distinction had induced them to go through an excessive amount of intellectual labour during their student life, and who found themselves forced to pay the penalty of that excess in a subsequent prolonged abstinence from all mental occupation involving the slightest degree of effort." ("Human Phys." p. 352.) With regard to the observations on the state of the urine in the insane, which have, from time to time, been made, they are somewhat contradictory. Those of Drs. Sutherland and Rigby would accord with what one might expect from the foregoing statements, while those more recently made by Dr. Adam Addison, and conducted with great care, lead to a different result, although confirming the conclusion that during a maniacal paroxysm the urine is very acid, scanty, and of higher specific gravity. The possible sources of error, however, and the difficulty of determining the priority of the mental and physical phenomena, are so great that we shall not enter further now into this subject.

The influence of certain mental states, if prolonged, in causing diabetes appears to be clearly proved. Watson

specifies "distress and anxiety," and Copland "great mental exertion, and the depressing passions." Bernard's experiments on the vaso-motor nerves and the centres which control them, in explaining the pathological symptoms which arise from the changes induced in the nervous system by definite surgical lesions, show, also, how the emotions may produce the same results.\*

Dr. Dickinson's *post-mortem* examinations of cases of diabetes have confirmed these observations. He found, first, dilatation of the arteries, followed by degeneration of the nervous substance external to them, and vacuities, which were most marked and constant in the vicinity of the median plane of the medulla, the grey matter of the floor of the fourth ventricle, and, in particular, a spot just internal to the origin of the facial nerve. Lockhart Clarke has observed degeneration of the floor of the fourth ventricle, and erosion of the calamus scriptorius, with destruction of the nuclei of the vagus; also cavities at the roots of the facial nerves. Dr. Dickinson concludes that the nervous changes are antecedent to and productive of the glucosuria, and that diabetes is primarily and essentially a nervous disease. ("Medical Times and Gazette," March 19, 1870.)

*Saliva.*—Deferring the consideration of the influence of simple ideas upon the secretion of saliva to the section "Intellect," we may refer here to the alleged influence of anger on the quality of this secretion.

Bichat entertained no doubt that anger and love do inoculate the saliva with something "qui rend dangereuse la morsure des animaux agités par ces passions, lesquelles distillent vraiment dans les fluides un funeste poison, comme l'indique l'expression commune." ("La Vie et la Mort," p. 43.) The saliva of an enraged animal, and the venom of a viper are, according to Eberle, essentially the same.

In the "Lancet" for July 14, 1860, is the report of a case of a

\* A wound is inflicted on a portion of the anterior surface of the fourth ventricle; the abdominal circulation is suddenly accelerated, and the vessels in this region become turgid, just as if the sympathetic had been divided. Acceleration of the corresponding secretions is the result, and the flow of urine is much increased. Albuminuria sometimes accompanies this flow, and sometimes diabetes mellitus. "This is the case when the circulation of the liver has been also accelerated." The presence of grape sugar in the urine is thus referred to the acceleration of the hepatic circulation, more of the amylaceous substance produced by the liver and afterwards converted into sugar, being formed than the system can dispose of in a given time, and this surplus being excreted by the kidney. (Bernard; "Medical Times and Gazette," April 27, 1861.)

boy, æt.  $9\frac{1}{2}$ , who was bitten by a boy in anger. There was no evidence of rabies, but the boy died. He was seized with hydrophobia 48 days after the bite, and died in 24 hours. Trousseau quotes from Van Swieten the case of a young man who died of rabies after having bitten his own finger in a fit of anger. Also of an old woman who died with all the symptoms of rabies, after she had received a wound from a cock in a passion. He observes that Van Swieten could not admit that a virus, which was not present in an animal, could by it be communicated, and, therefore, conjectured that the cock had been bitten by a mad fox. This seems rather far-fetched; but it is difficult to understand why anger does not more frequently affect the saliva, and poison those who are bitten by angry persons or animals. Of these cases, however, and of one cited by the same author from Malpighi, who asserts that his own mother died of hydrophobia a few days after being bitten by an angry epileptic, the true interpretation may be, not only that the character of the secretion was altered, but that those who were bitten were in a peculiar condition of health at the time.

Gaubius records several cases. A soldier quarrelled with a woman, who thereupon bit his hand. He was seized with rigors and died. An enraged Italian youth, unable to revenge himself, bit his own hand and was seized with a deadly fear of water, as if bitten by a rabid dog.

Gaubius confesses himself unable to explain how "such pestilent corruptions of the fluids are so suddenly excited." In reference to this observation, Prochaska admits that it is quite possible that the nerves, irritated by anger, may by virtue of their influence over the secretions, render them impure, although we cannot determine in what this impurity consists. ("Laycock's Translation," p. 421.) While anger increases and poisons this secretion, fear checks or suspends it, as is indicated by the parched mouth.

*Gastric Juice.*—Pleasurable emotions increase the amount of gastric juice secreted; the opposite effects being produced by depressing passions. In dyspepsia, which constitutes so forcible an illustration of the influence of abnormal mental conditions, a change in the character or amount of this secretion may or may not be the principal cause, but that morbid feelings acting directly on the stomach through the organic nerves, do form one important element in the psychical genesis of the dismal symptoms comprised under this term, cannot admit of doubt.

Fletcher, in his "Sketches," mentions a barrister, who enjoyed perfect health except when anxious during the assizes. Then the tongue

became brown, the appetite vanished, and if food was taken, severe pain in the stomach succeeded. His anxiety once removed, his tongue cleaned, and "his appetite, a distinguished one, returned with such uncontrollable force, that this limb of the Law stops at a half-way house in his return home, when the limb of an animal less dangerous than himself, satisfies in some measure the capricious humour of his otherwise most respectable, and certainly very capacious stomach." (p. 19.)

Brierre de Boismont records the case of a convict, who was greatly surprised and distressed with the verdict he received. Gastric and hepatic symptoms followed, and it was thought he would die. He was removed from the prison. He scarcely took any nourishment, and suffered from continual nausea, and frequent vomiting, the matter thrown up being chiefly mucus. Organic lesion of the stomach and hepatic tumour, were diagnosed. In a week, however, he improved; he was able to take a few spoonfuls of soup, and he eventually recovered. He said (and his doctors agreed with him)—"Si j'étais resté huit jours de plus dans la prison, j'étais un homme mort." ("Annales Medico-Psychologiques," 1853.)

*Bile.*—Popular opinion connects bile and bad temper or melancholy together, perhaps more thoroughly than any other psychical and physical facts, the supposed order of events being sometimes psycho-physical; and at others physico-psychal. Gaubius, in asserting that the natural properties of the juices may be so altered that, with astonishing rapidity, the bland becomes acrid, and the salubrious hurtful—nay, virulent—asks, "Do you doubt it? I give you the example of a hysterical woman who, in a passion, vomits vitiated bile of every colour and acidity." Dr. Carpenter remarks that it is "perhaps not an ill-founded opinion that melancholy and jealousy have a tendency to increase the quantity, and to vitiate the quality of the biliary fluid," and that "it is certain the indulgence of these feelings produces a decidedly morbid effect by disordering the digestive processes, and thus reacts upon the nervous system by impairing its healthy nutrition." ("Human Phys.," p. 982.) The influence of sudden fright in checking the secretion of bile, and so occasioning jaundice, is adduced by Bichat, as a striking proof of the connection between mental states and the secreting organs. Emotional jaundice, as also emotional cholera, may, as already stated (*antea*, July, 1871, p. 178), be also caused by abnormal action of the muscular coat of the gall duct and the intestines, and it would be hard to decide in a given case to which division to refer the symptoms. Dr.

Budd observes that jaundice, following mental shock, long continued anxiety, or grief, is often unattended by any alarming symptom, "but now and then, after it has existed for some time without any symptoms indicative of especial danger, disorder of the brain, which proves rapidly fatal, comes on. After death in such cases, portions of the liver are sometimes found completely disorganised. *It would seem that some virulent poison is generated in the liver,* which deranges and then paralyses the brain, and after death comes softening and disorganisation of the liver itself." ("Disease of the Liver," p. 478.) Dr. Wilson Philip asserts that depression of mind, if protracted, alters the structure of the liver.

Dr. Badeley records the case of a certain great military officer who left England at an advanced age, to take possession of his government without his lady, and without bidding her farewell. As soon as she heard of his departure, she almost immediately became yellow, took to her bed, refused all food and medicine, and died in a very few weeks.

*Intestinal Secretions.*—Apart from muscular action, defecation may become urgent, or occur involuntarily from various causes, one being the increased secretion from the intestinal canal, as from fear, and in some cases from the altered character of the secretion itself. Certain cases of choleraic diarrhœa (although of course complicated with other pathological states) may be referred to here.

The story of the Russian convicts under sentence of death, some of whom were placed in beds falsely said to have been occupied by cholera patients, will occur to the reader. Mr. G. Smith reported in the "Lancet," of Aug. 4, 1866, the case of a fine hale blacksmith under surgical treatment in King's College Hospital, who carried down the bed on which a cholera patient had died. He sat up until late, brooding over what he had done and its probable consequences. He died next morning of cholera. Those, however, who believe that cholera is contagious would not admit that, in this case, fear was more than the exciting cause of the attack.

When, some years ago, the cholera was prevalent at Newlyn, a fishing village near Penzance, intercourse was forbidden between the two places. One day a man entered the shop of a barber in Penzance, and was shaved. On leaving, some one, who had recognised him, asked the barber if he knew whom he had been shaving. He replied, he did not. "Why, he's a man from Newlyn!" It was enough. The terrified barber was seized with cholera, and died within twenty-four hours.

Mr. —, of Falmouth, some years ago, had the cholera. When well, he went to the Lizard for change. The woman who opened the door of the house to which he went, having heard that he had had the cholera, was exceedingly alarmed, and had an attack herself.

*Catamenia.*—It would be tedious to enumerate even a small proportion of the cases which are on record, showing the influence of moral causes on the suppression of this secretion. Disappointed affections, everyone knows, are a fruitful cause, and in such instances there can be no confusion between cause and effect. The sequence of the phenomena is also clear when rage operates, as in a case recorded by Brierre de Boismont, of a lady who was thrown into a furious passion by some circumstance, in consequence of which suppression took place. Remedies failed to relieve her, and she became insane. Regarded as possessed, she was exorcised, but without effect. Subsequently, medical treatment restored the uterine functions, and, concurrently, her mental health. (“*Annales*,” 1851, p. 593.)

*Milk.*—The influence of emotional excitement on the secretion of the mammary gland is generally recognized, and there is no difficulty in meeting with cases which forcibly illustrate it. We have only space, however, for the following:—

Descuret states that during a period of four years, a young woman suddenly lost her two children and a foster-child from giving them the breast immediately after being in a violent passion (“*La Médecine des Passions*,” 1841, p. 56). He also cites from Parmentier and Deyeux, that after powerful emotional excitement, the mammary gland secretes an insipid yellowish serous fluid instead of one possessing its normal white saccharine character. Copland cites from Graeffe the very striking case of a woman who received a fright a week after delivery. This caused complete suppression of the milk, followed by ascites and anasarca. Paracentesis was performed, “a bucket of fluid resembling whey, and exhaling an acidulous odour, was drawn off. Upon being boiled with dilute sulphuric acid, it furnished a substance resembling casein. When tapped six weeks afterwards, the fluid was of a greenish yellow, and without the least trace of casein.” (*Dict.* vol. 1, p. 189.)

*Tears.*—The secretion of the lachrymal glands is, we know, excited by joy (and tender emotions) as well as by grief, its natural excitant.

“Back, foolish tears, back to your native springs—  
Your tributary drops belong to woe,  
Which you mistaking offer up to joy.”

We must confess with Brodie that we are unable to answer so simple a question as why or how does a certain state of mind augment the secretion of this gland? Gratiolet inferred, partly from his own sensations, that tears result from reflex irradiations which traverse the fifth pair of nerves; that is to say, the emotion of joy or sorrow acts first upon the heart or other viscera through motor channels, and is then reflected upon the sensory nerve supplying the gland. But this track does not seem anatomically or physiologically justifiable. Much more likely is it that the influence is transmitted directly either to the capillaries of the gland by actively dilating motor nerves, or through nerves to the lachrymal cells themselves, directly exciting their functional activity. We might apply to the lachrymal gland, Sinitzin's conclusions in regard to the trophic influence of the cervical sympathetic and the fifth pair on the eyeball, but some difficulties present themselves, into which, however, we cannot now enter.

The *quality* of the secretion seems to be altered by powerful emotions, the saline ingredients being increased, causing "a strong brine."

Lastly, the secretion may be checked. The intensity of the feeling or the suddenness of the sorrow is the most frequently witnessed cause. Daily observation shows that the first result of distressing intelligence is the negative one—inability to cry. See, too, what the want of a handkerchief may do. "I went," says Hunter, "to see Mrs. Siddons acting; I had a full conviction that I should be very much affected, but unfortunately I had not put a handkerchief in my pocket, and the distress I was in for the want of that requisite when one is crying, and a kind of fear I should cry, stopped up every tear, and I was even ashamed I did not, nor could not, cry." (Posthumous Papers, Vol. i, p. 257.)

*Exhalation and Absorption.*—All dropsies, as Copland observes, may be referred to increased exhalation or diminished absorption, and so under this head we would briefly refer to two cases illustrative of the influence of emotional excitement in checking and exciting these functions. The influence of the sympathetic nerves upon absorption has been demonstrated by Bernard, their division accelerating and galvanism suspending the process.

Dr. Py, physician to the hospital at Narbonne, reported in the *Gazette de Santé*, the case of a boy, *æt.* 11, in whom ascites occurred, under the following circumstances:—Pierre Peyrel, having lost his



father, imagined in a dream that he returned and embraced him, which gave him a great fright. He was a pupil at the "Hotel de la Charité," and the officers of the establishment were surprised next morning to find the abdomen distended (*enflé du ventre comme un ballon*), as the lad had played, and taken his food as usual the preceding day. He was found by the doctor to be feverish, the pulse small and hard, and the abdomen painful and tender. Medicines having failed to remove the effusion, the surgeon to the hospital drew off 10 pints (Paris measure) of clear fluid, the cure being completed by local frictions and diuretics.

In the following case of ascites, for which I can vouch, the fluid was rapidly absorbed, and the action of the kidneys increased :—

A woman, aged about 45, was attended by Dr. B—, in a small town in Devonshire. He found medicines perfectly useless, and was, therefore, determined to try his hand (his first essay) at paracentesis. He intimated to the patient what he intended to do on the following morning, which alarmed her much ; in fact, nearly frightened her out of her wits. He invited two of his medical friends to assist him in the operation. The trio were duly ushered into the sick room—but no operation ! The fluid had vanished, discharged chiefly by the bladder. They found the poor creature exhausted, blanched, and "as thin as Sam Slick's teetotal lawyer, who had been drawn through a gimlet hole." The abdomen was bandaged, and the worthy doctors walked back to the surgery to consult, and unriddle the mystery.

In conclusion, a passing reference may be made to the influence on pulmonary exhalation of emotional states, the breath being rendered notably offensive by distress of mind, and to the acid eructations and flatulence, "partly exhaled from the digestive mucous surfaces" (Copland), which arise from the same cause. Of heartburn, an expression which receives an illustration from Shakspeare, indicates the popular belief. "How tartly that gentleman looks ! I never can see him but I am heart-burned an hour after." Though mental heartburn only be implied, the metaphor is itself a recognition of the relationship between the two states—bodily and mental.

SUMMARY.—1. The emotions powerfully excite, modify, or altogether suspend the organic functions.

2. This influence is, in all probability, transmitted not only through vaso-motor nerves, by virtue of their mere action upon the calibre of the vessels, but by the direct action of certain of these nerves, or of

others, upon Nutrition and Secretion. As when the excitement is of peripheral origin, a sensory or afferent nerve excites their function by reflex action, so when emotion arises, it may excite the central nuclei of such afferent nerve, and this stimulus be reflected upon the efferent nerves; or it may act directly through the latter.

3. In regard to the processes of Nutrition, the pleasurable emotions tend to excite them. Hence the excitement of certain feelings may, if definitely directed, restore healthy action to an affected part, and remove abnormal growths.

4. Violent emotions may modify Nutrition. Various forms of disease originating in perverted, defective, or inflammatory nutrition are caused primarily by emotional disturbance.

5. As respects Secretion, the emotions, by causing a larger amount of blood to be transmitted to a gland, increase sensibility and warmth, and so stimulate its function; or they may directly excite the process by their influence on nerves supplying the glands.

6. Painful emotions may modify the quality of the secretions, either by altering the chemical composition of the blood, or by directly influencing the functions of the gland.

7. The emotions may check Secretion, either by extreme acceleration of blood through a gland, by unduly lessening its afflux, or by direct influence upon the gland. Although, as a rule, the activity of those glands which bear special relation to an emotion, is in a direct ratio to its force, the secretion is checked when the emotion is excessive.

8. The pleasurable emotions tend to act in only one direction, that of increased activity of the secretions, but the painful emotions act both in stimulating and arresting secretion. Thus, grief excites the lachrymal, and rage the salivary glands. On the other hand, the salivary secretion may be checked by fear, and the gastric by anxiety.

9. Lastly, although it may be doubted whether we are yet able to construct a consistent theory of the action of the emotions upon secretion, we may endeavour to apply what we do know to occur on the external surface of the body to the internal organs, supplemented by the conclusions arrived at by Bernard. Fear, then, causes pallor of the cheek (apart from its action on the heart). Either the (sympathetic) contractors of the minute vessels have been stimulated, or the active (cerebro-spinal?) dilators have been paralysed—probably the latter. Assuming that the capillaries of the glands are similarly affected by fear, we should infer that there would, with this emotion, be less vascularity and secretion. Consistently with this, we find the secretion of milk impeded by fear or fright. The temperature of the skin is lowered, and its secretion checked, although cold sweats, as already explained, may occur. Salivary secretion is arrested. Intestinal secretion is often increased, it is true, but probably this may be explained, so as not to form a real exception to the general rule, that fear has the effect on secretion which we should have expected from facial pallor. In the opposite condition of the cheek, from shame or guilt, it is difficult to say whether

the activity of the glands tends to increase or decrease, but probably the former, and, if so, the parallel holds good. If, further, we regard the influence of joy when, taking the place of fear, it restores vascularity to the cheek, we see that the general action of joyful emotions is to augment the activity of the glands. The special action of grief in exciting the lachrymal secretion cannot fairly be regarded as an exception; and joy, even in this instance, may exercise its normal influence. In this condition of the cheek and glands we assume that either the vaso-motor contractors have been paralysed, or the active dilators have been stimulated—probably the latter. We have here confined ourselves to the action of the vessels, but by no means exclude the action of nerves, which may act directly upon the glands. With regard to these, we cannot, however, ascend from the known and visible to the unknown and invisible. As to the relative share taken by the sympathetic and cerebro-spinal systems, if Bernard be right, in referring contractors of vessels to the former and dilators to the latter, the opposite emotions of fear and joy would both appear to act through the cerebro-spinal system—paralysing the dilators in one case, and stimulating them in the other.

(*To be continued.*)

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*The Temperature in General Paralysis of the Insane.\** By W. JULIUS MICKLE, M.D., of the Derby County Asylum.

The thermometrical observations made for a considerable period of time in a number of selected cases of general paralysis of the insane, form the subject of this paper. In all of them, the pulse and respiration associated with each temperature is added to make the observations more complete. The cases chosen exhibit a considerable variety in etiology, in duration, in degree and rate of progression of the motor symptoms, and also in the phases and forms of concurrent mental disorder.

The first series of cases comprises several which vary much in the details just mentioned, but agree in this—that, as yet, they are not complicated by visceral lesions, or by those special seizures to which general paralytics are subject. A short sketch of the mental and physical state at the time of observation, and also of the antecedent history, is given in each; and appended thereto is a summary of the average morning and evening temperatures. Any variation of these averages which accompanied the progress or retrogression of the disease is noted.

\* My thanks are due to Dr. Hitchman for the use of the Case Books.

The second series includes four cases which proved fatal. The variations of temperature, pulse, and respiration concurring with the apoplectiform or epileptiform seizures in some cases, and with the visceral complications in others, are here exhibited. Careful observations were made each day, both in the morning and evening, for weeks or months, and the mental and physical state recorded in all until death took place.

In the histories given, allowance must be made for the fact that the duration of the disease previous to admission is difficult to arrive at, and is often UNDERSTATED in the certificates.

The former series of uncomplicated cases comprises:—

(I.)—Buoyant satisfaction without delusions of grandeur: moderate paralysis: intemperance and exhausting work: at least eighteen months' duration.

(II.)—Mental confusion and weakness, latterly marked melancholic depression, with vivid corporeal illusions: early predominance of motor symptoms relatively to the mental: marked hereditary tendencies to insanity and drunkenness: cranial injuries: at least nine months' duration.

(III.)—Expansive delirium, with mental weakness and occasional depression: earlier and middle paralytic stages represented: sexual excesses: of at least eight months' standing.

(IV.)—Prolonged remission: relapse: extreme paresis and dementia of lengthened duration: four years and a half after first symptoms.

(V.)—Early dementia, with a tinge of joyous well-being: slow progress: four and a half years' duration.

In the first case, there have been for many months a slight prolongation of expiration, and a slight increase of vocal resonance, at the apex of the right lung; and in the last case, a few slight dry *rales* are heard over the base of one lung at present.

These cases, in the variety of their details, justly represent the various stages of the disease when it is not associated with congestive or convulsive invasions, or visceral complications of a lethal nature. The four cases forming the next series concern the second branch of enquiry, viz. :—into the temperature changes which have relation to such invasions and complications.

*First Series.*

CASE I.—J. S., iron-roller. Admitted Sept., 1870, æt. 38. Previous duration stated to be two months. He drank inordinately while engaged at his laborious occupation. A stout man, of large frame and fresh complexion; but the features are flabby, and the lines of expression partially obliterated. Is employed as a ward-helper, and walks very fairly. The tongue and lips are tremulous, and the speech characteristic of general paralysis. No grandiose delirium has been noted at any time, but he shows a buoyant satisfaction with himself and his surroundings, and dilates on his physical powers, his possessions, and the pleasures of his past life, with gusto and slight exaggeration. He tries to write, but soon gets confused, even about the spelling of his own name. Compared with the state four months previously, cerebation appeared slightly slower and more confused in September last, and the paralytic character of voice and labial tremor were very evident then, whereas in May, and before that, they were often absent during the first few minutes of conversation. In January, 1872, the paralytic condition and mental weakness have advanced further, and he is more than ever pleased with his physique.

| MAY, 1871.                      |        |                                 |        |
|---------------------------------|--------|---------------------------------|--------|
| Average morning temperature ... | 98.5°  | Average evening temperature ... | 98.63° |
| "    "    pulse ...             | 84.2   | "    "    pulse ...             | 84.3   |
| "    "    respiration ...       | 21     | "    "    respiration ...       | 21     |
| SEPTEMBER, 1871.                |        |                                 |        |
| "    "    temperature ...       | 98.71° | "    "    temperature ...       | 98.53° |
| "    "    pulse ...             | 88.75  | "    "    pulse ...             | 82.6   |
| "    "    respiration ...       | 20.6   | "    "    respiration ...       | 20.6   |
| JANUARY, 1872.                  |        |                                 |        |
| "    "    temperature ...       | 98.88° | "    "    temperature ...       | 98.85° |
| "    "    pulse ...             | 82.4   | "    "    pulse ...             | 79     |
| "    "    respiration ...       | 23.5   | "    "    respiration ...       | 23.8   |

He now weighs 184 pounds, having gained 22 pounds since admission.

The paralytic and mental symptoms have somewhat advanced during the last eight months without any noteworthy change in average temperature.

CASE II.—T. G., bricklayer. Admitted May, 1871, æt. 40, when the duration of his case was said to be "one month." Grandfather, uncle, and sister insane. His father drank to excess and died of phthisis; his somewhat imbecile mother passed most of her married life in anxiety, owing to the vices and caprices of her husband. T. G. lost an eye from injury many years ago, and bears on his left temple the trace of a

severe fall from a horse when a young man. He was certified as having slight delusions of possession before admission; but since he came here, he has only exhibited on the psychical side confusion and progressive mental weakness, and, latterly, pronounced melancholic feeling and delusions have been superadded. "Is dead!" "Has no bowels!" "All his body is gone!" He cries much, and often stumbles awkwardly forward "to be saved." The paralytic symptoms, especially the affection of speech, have been prominent from the time of admission. In September, speech was much affected, the delicate acquired automatic actions could not be performed, the gait was much impaired, and the mental and physical state was rapidly getting worse. At this time the absurd melancholic delusions and corporeal illusions were at their height; and, in comparison with the observations in June, there was a decided increase in the *average* temperature, especially in the evening. Since September he has been less distressed, but shows extreme confusion and loss of memory. While this slowing of the former rapid progress of the case has taken place, the average temperatures and pulse have remained almost unchanged between September and January. He has gained nine pounds in weight while in the asylum. The case is a marked instance of the melancholic variety of general paralysis; and the high average evening temperature coincides with a moderately rapid advance of the uncomplicated disease.

| JUNE, 1871.                     |        |                                 |         |
|---------------------------------|--------|---------------------------------|---------|
| Average morning temperature ... | 98.82° | Average evening temperature ... | 98.84°  |
| " " pulse ...                   | 68     | " " pulse ...                   | 69      |
| " " respiration ...             | 14.4   | " " respiration ...             | 15.5    |
| SEPTEMBER, 1871.                |        |                                 |         |
| " " temperature ...             | 99.28° | " " temperature ...             | 100.°   |
| " " pulse ...                   | 72.9   | " " pulse ...                   | 84      |
| " " respiration ...             | 19.7   | " " respiration ...             | 21.3    |
| JANUARY, 1872.                  |        |                                 |         |
| " " temperature ...             | 98.86° | " " temperature ...             | 100.14° |
| " " pulse ...                   | 73.2   | " " pulse ...                   | 84      |
| " " respiration ...             | 18.6   | " " respiration ...             | 17.25   |

CASE III.—W. E., æt. 34, dairyman. Admitted July, 1871, when his disease was said to have existed two months. He is the truant, spendthrift son of a passionate father, and has probably indulged in sexual excess, while his work has been hard. During the first two or three months after admission, he had many grand delusions of possession, which varied in their details from day to day, the emotional state being sometimes gay and expansive, at others, lachrymose and restricted. The physical symptoms of general paralysis were present, and speech was early affected, though no

tremor of the tongue has ever existed. At that time he could button his clothing, and the gait was brisk, but showed incipient signs of impairment. He wrote a set of pot-hooks, which he translated into "fat sheep and Scotch bullocks." Then also—

## SEPTEMBER, 1871.

|                                 |        |                                 |        |
|---------------------------------|--------|---------------------------------|--------|
| Average morning temperature ... | 97.83° | Average evening temperature ... | 97.56° |
| " " pulse ...                   | 76.7   | " " pulse ...                   | 89.4   |
| " " respiration ...             | 14.5   | " " respiration ...             | 16.1   |

Since that time the muscular inco-ordination and mental weakness have advanced; at first, with much intermingling of lachrymose depression, and afterwards with great drowsiness and incessant attempts to undress and lie down, varied by long bouts of swearing and abuse; while the pulse has become more frequent, and the average *evening* temperature has risen. His weight has increased 14 pounds during asylum residence.

## JANUARY, 1872.

|                                 |        |                                 |        |
|---------------------------------|--------|---------------------------------|--------|
| Average morning temperature ... | 97.72° | Average evening temperature ... | 98.25° |
| " " pulse ...                   | 94.9   | " " pulse ...                   | 100.3  |
| " " respiration ...             | 14.75  | " " respiration ...             | 16.3   |

CASE IV.—J. M., æt. 46. Brought here in May, 1867, as a wandering lunatic, suffering from incipient general paralysis, with assertive optimism. Gradual improvement set in a few months afterwards, and in March, 1869, he was much less boastful and insolent, but entertained some half-concealed delusions as to his skill and resources; and the physical signs of general paralysis were almost in abeyance. But he relapsed; mental and motor degeneration supervened, and in September, 1871, the following notes and thermometrical observations were made:—He is in the last stage of general paralysis, and has been confined to bed for fifteen months, utterly helpless, displaying the ataxic variety of gait when he walks supported on both sides. The tongue and facial muscles are involved, flexion of the limbs and resistance to passive motion are marked, and he is dirty, noisy, and destructive. He will sometimes answer a few questions in monosyllables, but, sooner or later, he begins shouting a species of gibberish peculiarly his own, "Alter, palter, seventy-two. Tittelly, tanter, seventy-two;" which he reiterates with increasing vehemence, rubbing his scalp violently with both hands, and finally reaches a state of excitement which finds vent in a hideous howl. He first began using this jargon nearly two years ago, and at that time was treacherous and vindictive.

|                                 |        |                                 |       |
|---------------------------------|--------|---------------------------------|-------|
| Average morning temperature ... | 97.65° | Average evening temperature ... | 98.1° |
| " " pulse ...                   | 72     | " " pulse ...                   | 76.3  |
| " " respiration ...             | 13.7   | " " respiration ...             | 16.1  |

Two months after the above observations were made, J. M. died of exhaustion, the nervous and circulatory powers breaking down very rapidly at the last. The length of the disease, the peculiar symptoms, the remission two and a half years before death, and the slow failure of the nutritive powers, though he was for many months so helplessly bedridden and demented, are worthy of notice. The evening temperature was a little higher than the morning.

CASE V.—J. G., leadminer. When admitted, Oct., 1867, *æt.* 37, there was much mental weakness and loss of motor power. In June last he was very demented. The tongue was tremulous, as were also the muscles of expression during speech, which was thick, hesitating, indistinct, faltering, and accompanied by much inane laughter. Muscular tremulousness occurred with all voluntary movements, as was well seen in his abortive attempts to button his clothing; and the gait was characteristically impaired.

| JUNE, 1871.                     |       |                                 |       |
|---------------------------------|-------|---------------------------------|-------|
| Average morning temperature ... | 97.8° | Average evening temperature ... | 98.3° |
| "    "    pulse ...             | 73    | "    "    pulse ...             | 83    |
| "    "    respiration ...       | 19    | "    "    respiration ...       | 18    |

In September these averages were precisely the same.

He has now (January, 1872,) partially recovered from the effects of severe epileptiform convulsions, with semi-coma and congestive symptoms lasting several days, which left him enfeebled and bedridden for weeks. Since these attacks, the first of the kind he has had, flexed tension of the limbs and emaciation have begun; muscular weakness, tremulousness, and dementia have increased; standing or walking is impossible, and the temperature now averages much higher, especially in the *evening*.

| JANUARY, 1872.                  |        |                                 |       |
|---------------------------------|--------|---------------------------------|-------|
| Average morning temperature ... | 98.55° | Average evening temperature ... | 99.7° |
| "    "    pulse ...             | 84     | "    "    pulse ..              | 87.2  |
| "    "    respiration ...       | 17.25  | "    "    respiration ...       | 19    |

*Summary.*—Early dementia; slowly advancing paralysis, much increased after epileptiform seizures, while three months after these the average evening temperature was considerably raised.

We tabulate the temperature AVERAGES in general paralysis in regular order from the lowest to the highest noted, thus often quite separating from each other in the table observations made on the same individual at different stages of the disease. The averages of the fatal cases yet to be described are also added to the table.



TABLE.

| No. | Rate of Progress.   | Motor State.   | Mental Symptoms.             | Excited or not.  | Morning Temp. Average of several weeks. | Evening Temp. Average of several weeks. | Evening Excess (Average). | Probable duration at date of Observations. |
|-----|---|--|------------------------------|------------------|---|---|---------------------------|--|
| 1   | Moderate ...  | Commencing paresis                                   | Optimism ...                 | Somewhat excited | 97.83°                                  | 97.56°                                  | ...                       | 4 months at least                          |
| 2   | Very slow ...   | Marked paresis ...                                   | Complete dementia            | Excited ...      | 97.65°                                  | 98.1°                                   | .45°                      | 52 "                                       |
| 3   | Advancing ...   | Developing paresis                                   | Chronic mania ...            | Excited ...      | 97.72°                                  | 98.25°                                  | .53°                      | 8 "  |
| 4   | Very slow ...   | Pronounced paresis                                   | Marked dementia              | Quiet ...        | 97.8°                                   | 98.3°                                   | .5°                       | 46 "                                       |
| 5   | Moderate (3 months before death) ...                      | Pronounced paresis                                   | Marked dementia              | Excited ...      | 97.8°                                   | 98.57°                                  | .77°                      | 15 "                                       |
| 6   | Slow ...  | Commencing paresis                                   | Bien être...                 | Quiet ...        | 98.5°                                   | 98.63°                                  | .13°                      | 11 "                                       |
| 7   | Moderately rapid ...                                      | Developed paresis...                                 | Moderate dementia            | Quiet ...        | 98.82°                                  | 98.84°                                  | .02°                      | 2* "                                       |
| 8   | Slow ...  | Developed paresis...                                 | Bien être...                 | Quiet ...        | 98.88°                                  | 98.85°                                  | ...                       | 18 "                                       |
| 9   | Rapid breaking up just before death in an average case... | Marked paresis ...                                   | Marked dementia              | Excited ...      | 96.95°                                  | 99.74°                                  | 2.79°                     | 27 "                                       |
| 10  | No. 4. Three months after severe convulsive attacks ...   | Almost bed-ridden...                                 | Complete dementia            | Quiet ...        | 98.55°                                  | 99.7°                                   | 1.15°                     | 53 "                                       |
| 11  | Moderately rapid ...                                      | Developed paresis...                                 | Melancholic and demented ... | Restless ...     | 98.86°                                  | 100.14°                                 | 1.28°                     | 9* "                                       |
| 12  | Rapid ...   | Marked paresis ...                                   | Complete dementia            | Excited ...      | 99.2°                                   | 100.11°                                 | .91°                      | 9* "                                       |
| 13  | End of third stage ...                                    | Bed-ridden ; lung-disease (shortly before death) ... | " "                          | ...              | 100.84°                                 | 101.86°                                 | 1.02°                     | 41 "                                       |
| 14  | End of third stage ...                                    | " "  | " "                          | ...              | 100.64°                                 | 102.6°                                  | 1.96°                     | 10* "                                      |

\* Probably much longer.

*Second Series.*

NOTE.—The abbreviations used are T. or Temp. for Temperature; P. Pulse, and R. Respiration; A.M. and P.M. Morning and Evening. In all the cases in this paper the temperatures were taken at about 10 a.m., and 8 p.m., the latter when the patients had retired to bed.

We now reach the second branch of investigation.. It concerns the thermometrical, circulatory, and respiratory changes concurring with the more immediate progress to death, and also prognosticating, or synchronous with, the maniacal exacerbations, the apoplectiform or epileptiform attacks, and the hectic from asthenic gangrene or pulmonary lesions, which so frequently urge on the fatal end.

CASE VI.—J. S., quarryman. Admitted Nov., 1870, when his disease was said to have existed four months. Speech was faltering and indistinct, the tongue tremulous, the gait rolling and uncertain, hearing obtuse, and habits dirty. He laughed in a silly manner when addressed, replied in monosyllables only; and memory was deeply impaired. In May, 1871, when the daily observations of his temperature, general state, etc., were begun, his condition was as follows:—Answers in monosyllables only, or reiterates some word of the query in an utterly mindless way, and in thick muffled tones, with quivering of the labial and facial muscles. The movements of the tongue are vacillating and tremulous, and its protrusion momentary. He makes much loud *sucking* noise. The gait is greatly impaired, and he is apt to fall. In June the state rapidly worsened. There was much night-restlessness, and he was often found shouting a few incoherent words, as “pretty girl.” By the end of the month he was unable to walk, was feeble and helpless, and moderate contractures of the limbs, with much resistance to passive motion, existed; finally, bedsores appeared, and he was placed on a water-bed. On July 4th, pleuro-pneumonia appeared at the base of the left lung, bad bedsores formed, appetite failed, emaciation progressed, with an icteric hue of skin; and, though there was a transitory rally on the 10th, he sank a few days afterwards; death being accelerated by blockage of the bronchi by secretions, and preceded for some days by notable subsultus, and by contractures of the limbs. In this case, not only was the supervention of lung-mischief announced by the change of temperature, but also there were throughout general concurrences between the ebb and flow of the symptoms, and the variations of thermometrical reading.

Thus, when the morning temp. was averaging 99.2°, and

the evening temp.  $100.11^{\circ}$ , it was noticed that on May 22nd and 23rd there was excitement, flushed face, etc., and an evening temp. rising above  $101^{\circ}$ , culminating on the 24th in a.m. temp.  $101.1^{\circ}$ , and p.m. temp.  $101.6^{\circ}$ , associated with much restless excitement, noisy muttering, and marked resistance to passive motion. Then, till the end of the month, the temperature fluctuated slightly, and maintained the previous averages, quietude or only moderate excitement and flushing being present. In June the evening temp. averaged  $100.53^{\circ}$ , rising to  $101.3^{\circ}$  on the 12th, with noisy excitement (chest healthy); then gradually defervescing for a few nights, and shooting up suddenly to  $102.4^{\circ}$  on the 27th, when there was a paroxysm of excitement, the whole state being a strong contrast to the quietude and temp. of  $98.6^{\circ}$  on the morning of the same day. Next morning he was drowsy, probably from a congestive seizure in the night, and the high temp. of the ensuing evening was associated with much flushing and heat of face and scalp. He was now becoming utterly helpless, with stiffened limbs, incipient bedsores, and emaciation. July 2nd. A.m. and p.m. temp. and pulse higher, defervescing next morning; rising notably on the evening of the 3rd with subsultus, and ushering in the pleuro-pneumonia found on the 4th; while the bed sores grew worse, and exhaustion increased. Temp. sank considerably next day, and was only moderately high for some days, the p.m. temp. sinking on the 10th to  $101.9^{\circ}$ , though subsultus remained, but on the 11th the bases of both lungs were implicated, and the temps. were high, becoming still more abnormal on the 12th ( $102.9^{\circ}$  and  $104.8^{\circ}$ ), while a temp. of  $103.2^{\circ}$  preceded death on the 13th.

Rapidly advancing general paralysis, free from all pulmonary complication till July, though, for at least two months before that date, the temperatures were above the normal standard of health.

## MAY.

|   |  |
|---|--|
| Average morning temperature... $99.2^{\circ}$ | Average evening temperature ... $100.11^{\circ}$ |
| "    "    pulse ... .. $80.3$                 | "    "    pulse ... .. $84.3$                    |
| "    "    respiration ... $17.7$              | "    "    respiration ... $18.7$                 |

## JUNE.

|  |  |
|--|--|
| Average morning temperature... $99.21^{\circ}$ | Average evening temperature ... $100.53^{\circ}$ |
| "    "    pulse ... .. $85.4$                  | "    "    pulse ... .. $86.6$                    |
| "    "    respiration ... $17.6$               | "    "    respiration ... $16.5$                 |

## JULY. Death on the 13th. Lung disease.

|   |  |
|---|--|
| Average morning temperature... $100.64^{\circ}$ | Average evening temperature... $102.6^{\circ}$ |
| "    "    pulse ... .. $111$                    | "    "    pulse ... .. $115$                   |
| "    "    respiration ... $29.6$                | "    "    respiration ... $30.5$               |

CASE VII.—W. B., gardener. Admitted April, 1869, æt. 36, when his insanity was said to have existed one month. When

admitted, the demeanour was gentle, but there was much self-laudation, rising to wild boastfulness at times, and the paralytic symptoms were slight. By May, 1871, he was far advanced in general paralysis, lying on a water-bed, the subject of slight bed-sores and of erysipelatosus action about the foot. The extreme motor deficiency was accompanied by much restlessness and grinding of the teeth. A sharp attack of erysipelas of the left arm underwent resolution, but subsequently that member became completely paralysed, rigid, and atrophied. His answers were utterly irrelevant; he apparently had visual hallucinations, but no traces of the former exalted delusions seemed now to exist. Sometimes he was mulishly obstinate. Chloral procured much sleep at night. Hypostatic pneumonia of the base of the right lung appeared on June 16, but was not extensive, and did not much affect the progress of the disease. Death occurred on June 30, and was preceded for a week by a more unhealthy state of the bed-sores, by hectic, marked subsultus, refusal of food, dry brown tongue, and a half comatose state, which gradually deepened towards death. The vital powers flickered, and apparently rallied, a day or two before the end.

Case of moderately rapid sinking in general paralysis, with freedom from visceral complication until the last week of life, but with slight bed-sores preceding death for some time. Very high EVENING temperature throughout.

During MAY, and up to JUNE 24, without visceral disease.

|                                |        |                                 |        |
|--------------------------------|--------|---------------------------------|--------|
| Average morning temperature... | 96.95° | Average evening temperature ... | 99.74° |
| "    "    pulse ...            | 93     | "    "    pulse ...             | 95     |
| "    "    respiration ...      | 13.4   | "    "    respiration ...       | 15     |

JUNE 24 to 30. Lung mischief (moderate). Death.

|                                |         |                                 |         |
|--------------------------------|---------|---------------------------------|---------|
| Average morning temperature... | 101.46° | Average evening temperature ... | 102.74° |
| "    "    pulse ...            | 108     | "    "    pulse ...             | 121     |
| "    "    respiration ...      | 22      | "    "    respiration ...       | 31      |

On May 19 the a.m. and p.m. temp. and pulse rose, the only other coincident changes being flushing of the face and heat of head, and next day the temp. and pulse had resumed their ordinary level. On the 23-4-5 there was considerable elevation of evening temp., with flushing, and restlessness in the night, and the temp. mounted still higher on the evening of the 26th, without restlessness. On the 27th, temp. had fallen, and the patient was quiet. Next morning he was grinding the teeth, temp. 96.3°; in the evening flushed, temp. 100.4°, followed by great restlessness during the night. In the early part of June he was generally quiet, and the evening temp. slightly under 100°, though it rose on the night of

the 6th, without anything special to explain the elevation. From this date to June 14th, the pulse ran high, the a.m. temp. was low, and the p.m. temp. high, the latter being associated with much flushing and heat of head, but with little grinding of teeth or restlessness, the general condition meanwhile improving. June 14th, there was slight hypos-tatic pulmonary implication, a.m. temp.  $98.6^{\circ}$ ; p.m. temp. over  $100^{\circ}$ ; the patient quiet. On the 17th much flushing and restless teeth-grinding occurred, the pulse rose from 96 to 112, the temp. remained, however, at  $101.7^{\circ}$ . Both a.m. and p.m. temps. sank on the 18th, returned to their late level with excitement on the 19th, defervesced again on the 20th, again effervesced on the 21st, but after this resumed their former status (a.m. temp. about  $1^{\circ}$  below the healthy standard, and p.m. temp.  $.5^{\circ}$  to  $1.5^{\circ}$  above it.) But the evening of June 24th inaugurated a new state of things, for without change in the pulse or respiration, the evening temp. rose from  $100^{\circ}$  to  $101.6^{\circ}$ . This was the herald of evil, and next morning the pulse and temp. were both above  $100^{\circ}$ , a more zealous grinding of the teeth being the sole other apparent change; but by the evening he was very restless, and the subject of general trembling subsultus, while the temp. was then  $103.8^{\circ}$ . From this date, till death, he had low limited pulmonitis, hectic, refusal of food, subsultus, haggard facies, excessive debility, and temperatures somewhat constantly about  $101.7^{\circ}$  a.m., and  $102.3^{\circ}$  p.m. The temp. sank  $1^{\circ}$  or  $2^{\circ}$  on the two nights preceding death.

The rise in temperature, preceding any other marked signs of the imminent fatal ending, is worthy of note; and it will be seen above that the paroxysms of excitement were usually accompanied by an elevation of temperature, while also the rise due to commencing lung implication was only transitory. The very high temperatures of the last week were probably partly due to the state of the bed-sores, rather than to that of the lung, and partly to the cerebro-spinal mischief. The great elevation of evening temperature relatively to the morning, when the advancing paralytic disease was as yet uncomplicated, seems very striking.

CASE VIII.—J. B., butcher. Admitted April, 1870, having been certified as insane after sentence of six months' imprisonment for sheep stealing. Intellect always rather feeble, and further degraded by intemperance and loose living. When he entered the Asylum his habits were dirty, the muscular system tremulous, and gait slouching. In

January, 1871, he suffered an apoplectiform attack, followed by much convulsive action, mainly affecting one side, and confining him to bed for days. He rallied decisively from this state, and in May was suffering from marked general paralysis, with dementia, incoherent contradictory answers, labial, facial, and lingual tremulousness, thick, muffled, slow speech, and feeble unsafe gait. Slight facial paralysis, which had followed his seizure a few months ago, still existed, but disappeared soon afterwards. Subsequently, a number of apoplectiform seizures of varying severity occurred while he was under daily minute observation. Later, epileptiform attacks came on, and the disease gradually advanced till recumbency on a water bed was necessary, from August 1, onward. In spite of extremely careful nursing, bedsores formed, and death finally occurred on September 9, without any complication, save bronchial congestion on the last day or two of life. This leaves the case free from certain fallacious elements, and the thermometrical readings become interesting in relation to his frequent apoplectiform and epileptiform attacks. Tonics and chloral were taken with benefit.

|                                 |                                |  |        |
|---------------------------------|--------------------------------|--|--------|
|                                 | MAY.                           |  |        |
| Average morning temperature...  | 98°                            | Average evening temperature ...                  | 98.76° |
| "    "    pulse ...             | 72.7                           | "    "    pulse ...                              | 76.3   |
| "    "    respiration ...       | 15                             | "    "    respiration ...                        | 15.2   |
|                                 | JUNE.                          |  |        |
| Average morning temperature ... | 97.8°                          | Average evening temperature ...                  | 98.56° |
| "    "    pulse ...             | 71.8                           | "    "    pulse ...                              | 75.4   |
| "    "    respiration ...       | 13.2                           | "    "    respiration ...                        | 13.9   |
|                                 | JULY.                          |  |        |
| Average morning temperature ... | 97.83°                         |  |        |
| "    "    pulse ...             | 69                             |  |        |
| "    "    respiration ...       | 13.7                           |  |        |
|                                 | AUGUST.                        |  |        |
| Average morning temperature ... | 97.86°                         |  |        |
| "    "    pulse ...             | 80.8                           |  |        |
| "    "    respiration ...       | 13.8                           |  |        |
|                                 | SEPTEMBER.—(Death on the 9th.) |  |        |
| Average morning temperature ... | 97.65°                         |  |        |
| "    "    pulse ...             | 85.2                           |  |        |
| "    "    respiration ...       | 17                             | (excluding the respiration on the day of death.) |        |

Here we find a temperature varying but slightly during the last five months of life, and remaining at about the normal standard of health. Though the thermometrical readings remained almost unchanged in their *averages* till death, it will be seen that the morning pulse and respiration rose slightly during the last two months of life, but unfortunately the evening notes were not continued. They had shown an average evening temp. slightly higher than the morning average. Nothing more need be said about the

averages, but we may examine the variations of temp. and pulse associated with his special seizures, or with changes in the general condition.

The temperature, which had been normal, rose on the evening of May 18 to  $99.7^{\circ}$ , the patient appearing in his usual state. Next morning, however, he had a slight congestive attack, followed during the day and evening by higher temp., pulse, and resp., with occasional convulsive rigidity of the limbs, grinding of teeth, heated head and face, and stupid unintelligible answers. Temp.  $100.1^{\circ}$ . Ordered ol. croton; and lot. evap. to head. The croton produced profuse catharsis some hours afterwards, and on the next day he walked and spoke fairly. A.m. and p.m. temps.  $99^{\circ}$  and  $99.1^{\circ}$ . Two mornings afterwards temp. was  $97.3^{\circ}$ , and slight loss of power existed in the left leg. On the 23rd, flushed in the morning, temp. low; flushed during the day, with much restlessness and unstable gait, and an evening temp. of  $99.6^{\circ}$ ; and the same state of things, but in a lesser degree, was found on the next night, when the temp. was  $99.2^{\circ}$ , and was preceded by high morning temp. He was then quiet for a few days, and the mental and physical state improved, the morning temp. averaging  $97.6^{\circ}$ , and the evening  $98.5^{\circ}$ . On June 1, he lost consciousness for 15 minutes, and during the rest of the day seemed stubborn, the gait was less steady, but no special change of temp. occurred. A similar transient attack on the 3rd was preceded by slight excitement, but no rise of temp. or pulse marked or forewarned against its occurrence, though it was followed by resolute tension of the muscles, and busy grinding of the teeth. During the next fortnight the mental and physical states were improved, he had some drowsiness and moderate flushing, but was quiet, slept, walked, and spoke better, and in fact showed more intelligence than he had done for a long time, and the temps. were at their averages. The morning of June 16 found the temp.  $99.6^{\circ}$ , heralding an apoplectiform seizure in the afternoon, which was followed by p.m. temp.  $98.6^{\circ}$ , and a noisy restless night. He continued restless, confused, and grinding the teeth next day, temps. a.m.  $98.8^{\circ}$  and p.m.  $99.4^{\circ}$ . The falling temps. on the 18th ( $97.3^{\circ}$  and  $98.6^{\circ}$ ) gave promise of quietude, and though restlessness did not immediately cease, they proved a true omen, and ushered in a period of calm. Epileptiform seizures, during July, were usually preceded by muscular tension, grinding of the teeth, or vertiginous

attacks, and often followed by heavy drowsiness. Paroxysms of extreme restlessness and noisy excitement also occurred, and these, as well as the convulsive seizures, were sometimes heralded, and sometimes not, by a slight elevation of morning temp., which alone was now taken. On the 28th he became half comatose (a.m. temp.  $99.2^{\circ}$ ), and this state continued for two days, but by the 31st the cerebral symptoms were improved and the temp. reduced.—August 1. Bedsores suddenly appeared, and he was very helpless and stupid, now and then noisy, singing, &c. On the 16th occurred one of those sudden short increments of body-heat, without any other apparent special coincident or sequential change. On the 31st he was shouting and singing, as he was wont to do two months before, a.m. temp.  $99.4^{\circ}$ , and this excitement had gradually set in, with resumption of teeth-grinding, two days previously. Again, the lowered temp. of Sept. 1 ( $96.5^{\circ}$ ) took the lead in improvement, which was only fully established on the 2nd. Up to Sept. 6th, the temp. rose again to about  $98.5^{\circ}$  as the condition grew worse, with emaciation, noisy oaths and abuse, and flexed contractures of the limbs. On the 7th, refusal of food and perfect quietude with drowsiness; and on the 9th, bronchial congestion and rapid respiration immediately preceded death.

Here, then, an elevation of temperature usually ushered in and accompanied the convulsive and congestive attacks, but not in all instances when these were slight or only of moderate severity; and a fall of temperature was often the first step towards a return to the usual state after such attacks, or after maniacal excitement.

CASE IX.—G. F., carpenter. Admitted December, 1869, at the age of 40. On admission he was in a very advanced stage of general paralysis with dementia, stated to be then of two years' duration. He was unable to articulate clearly, walked with difficulty, and was in danger of choking by his food, of which he was greedy. He lived on in an extraordinary manner, capable only of the slightest locomotion, uttering merely a few unintelligible sounds, and having the usual physical symptoms of general paralysis well marked. He rallied from a bed-ridden state, but in April, 1871, his muscular powers failed, and it was necessary to keep him constantly on a water-bed. The accidentally bruised lip became the site of low inflammatory action. He was always *chopping* the lips; and being restless and sleepless at night, chloral hydr. ʒss. h.s.s. was ordered, and proved fully hypnotic.



For many months before this drug was taken, the night attendants "had never found him asleep." Subsequently, subsultus and rigid flexed contractures of the limbs occurred before death, which was also preceded for a week by bronchitis and increasing hypostatic congestion of the lungs. The temperature was not taken before the lungs were more or less involved, but for a fortnight previously the morning pulse had averaged  $92\frac{1}{2}$ , and the respiration  $25\frac{1}{2}$ .

MAY 16th, till death on the 24th.

|                                |         |                                 |         |
|--------------------------------|---------|---------------------------------|---------|
| Average morning temperature... | 100·84° | Average evening temperature ... | 101·86° |
| " " pulse ...                  | 120     | " " pulse ...                   | 124     |
| " " respiration ...            | 31·2    | " " respiration ...             | 33      |

After the supervention of hypostatic congestion running on to low pneumonia, the morning temp. averaged  $99^{\circ}$  for several days, while subsultus was present, and the necessary cleansing operations easily induced shivering and a cold purplish state of the skin. The evening temp. and pulse rose steadily, with increasing pulmonary mischief, to  $102\cdot5^{\circ}$  and 140 respectively on the 20th, on the morning of which day the temp. had risen to  $101\cdot4^{\circ}$ , no subsultus being observed therewith. In fact, next morning, though much subsultus and forcible contractures of the limbs were present, the temp., pulse, and resp. were precisely those of the day previous, when these symptoms were absent. The patient now rallied slightly for thirty-six hours, and took food, but restlessness and persistent rigidity of the limbs remained, and dyspnoea, mottled lividity of the skin, stupor, a high pulse and resp., and a temp. above  $103^{\circ}$ , yielded to death. The temperatures of the two evenings preceding the close of life were  $102\cdot6^{\circ}$  and  $103\cdot8^{\circ}$ .

It is difficult to say to what extent the elevation of temperature was due, on the one hand, to the pathological basis of the nervous disease; and, on the other, to the pulmonary disease which occurred as part of the general break-up at the close of the paralytic affection.

From an analysis of the foregoing and of similar observations, we infer that in the middle and later stages of general paralysis of the insane:—

1. A rise in temperature often accompanies a maniacal paroxysm.
2. A rise in temperature often precedes and announces the approaching congestive or convulsive seizures, and nearly always accompanies them.
3. When these states are prolonged (congestive or mania-

cal), the associated elevation of temperature is usually prolonged also.

4. Defervescence of temperature, after its rise with excitement or with apoplectiform attacks, often precedes the *other* symptoms of toning down to the usual state.

5. Moderate apoplectiform attacks, or moderate maniacal exacerbations, are, however, not invariably associated with increased heat of body.

6. A transitory rise in temperature may occur without any *apparent* change in mental or physical state to account for it.

7. The evening temperature is usually higher than the morning temperature in general paralysis, and an absolutely high evening temperature occurs in cases rapidly progressing towards death.

8. A *relatively* high evening temperature seems to be of evil omen, even when *not absolutely* very high.

9. Rapidly progressing cases may show temperatures above the average both in the morning and evening, for a long time before any complication exists.

10. Gradual exhaustion may pass on to death, in general paralysis, with an average morning temperature normal or nearly so throughout, except when raised temporarily by the special attacks to which general paralytics are subject.

11. The onset, especially, of pulmonary complications, or of hectic from bed-sores, is marked by much heat, and when death is accelerated by the former, the temperature and pulse run high, often, however, sinking somewhat before death, whilst respiration then becomes very rapid.

*Case with a Lesion involving Broca's Convolution without Broca's Aphasia.* By J. BATTY TUKE, M.D., F.R.C.P., and JOHN FRASER, M.B., C.M.

(Read at a Meeting of the Medico-Chirurgical Society of Edinburgh, February 7th, 1872.)

The chief object in bringing this case before you is its important bearing upon the present pathology of aphasia. It is one in which the posterior half of the third left frontal convolution was completely destroyed, both as regards the grey and white matter, and the only defect in language was partial verbal amnesia. The other points of interest are the laying

bare of the extra-ventricular nucleus of the corpus striatum, without its being morbidly affected, and the absence of right hemiplegia.

M. R., æt. 54, single. Admitted to Fife and Kinross Asylum on December 14th, 1868.

The history of this case is that of an apoplectic seizure eleven years previous to the above date. While working in the field at the time stated, she suddenly fell down and became unconscious. Her friends affirm that she was insensible "for some weeks." No amount of cross-examination of her sister, with whom she was residing at this time, could elicit any evidence of paralysis; there was no distortion of the face, no lameness or want of power in either hand, but complete speechlessness existed for some time. From this, however, she must have totally recovered, for, previous to her admission, she seems to have been rather talkative. She is reported to have been weak-minded since this attack.

This patient had an hereditary predisposition to insanity. Her cousin was insane and an inmate of the Dundee Asylum.

According to the schedules, M. R. became insane only four weeks previous to her admission, December 14th, 1868. The medical certificates stated that she was the subject of various delusions and hallucinations, such as the belief that strong men were trying to kill her, that she heard guns and cannons constantly going off on the roof of the house, which prevented her sleeping. Consequent upon these were acts which required her detention in an asylum, such as great restlessness at night and constant attempts to get out of the window. She was often found on the roof of her cottage in a state of nudity.

Soon after her admission these delusions and hallucinations apparently left her, for she never spoke of them, and became a quiet and industrious patient. She, however, became possessed of a peculiar idea, viz., that Thursday was Sunday, and on that day she would not work, whereas on the Sunday she would readily have done so if allowed.

During the whole period of her residence two peculiarities in her speech were observed—a thickness of articulation resembling that of general paralysis, and a hesitancy when about to name anything, the latter increasing very much some months previous to her death.

The thickness seemed apparently due to slight immobility of the upper lip when speaking, but there was no paralysis

when the lip was voluntarily compressed against its fellow. The inaction of the upper lip was observed by all.

The hesitancy was most marked when she came to a noun, the hiatus varying in duration according to the uncommonness of the word. Latterly, she could not recall even the commonest terms, and periphrases or gestures were used to indicate her meaning. She was always relieved and pleased if the words were given her, when she invariably repeated them. For example, she would say, "Give me a glass of—." If asked if it was "water," she said, "No." "Wine?" "No." "Whisky?" "Yes, whisky." *Never did she hesitate to articulate the word when she heard it.*

Her friends said she could read very well before the apoplectic attack, but not afterwards. This is incorrect, for she was constantly reading in her spare time, and that this was not a pretence at reading could be gathered from her comments on the book.

She was never observed to write, yet her friends state she could do so.

Her memory generally was slightly impaired, more in regard to recent than to remote events.

She became paraplegic two months before death. There had been a peculiar stoop in her walk for many years, and a constant pain, increased on pressure, at the third and fourth dorsal spines. She died 26th Dec., 1871.

The following is the result of the autopsy:—

Head—calvarium very dense and thick, tables thickened, diploe thin, membranes healthy, except some old adhesions on the left side, at the anterior part.

Brain appeared to be slightly shrunken, but the amount of serum which escaped ( $1\frac{1}{2}$  ounces) was not sufficient to indicate any great general atrophy.

On stripping off the dura mater on the left side, some slight adhesions were found between the layers of the arachnoid. These were easily detached, and exposed an excavation of the brain substance at the postero-infero-external part of the left frontal lobe. Its outline was irregular, its cavity filled with serum, and narrow white bands sprang from its sides. The serum was opalescent, but otherwise normal, and it was held in by the visceral arachnoid. On emptying the cavity, its dimensions were found to be as follows:—In its long axis, from before backwards, parallel to the fissure of Sylvius, two and a quarter inches obliquely, vertically one and three-sixteenths of an inch; in its deepest part it was three-quarters of an

inch, but generally only half an inch. This lesion had destroyed posteriorly the inferior fourth of the ascending parietal convolution, leaving a small posterior portion of the knuckle, in which this gyrus ends, the inferior third of the ascending frontal, the inferior margin of the second frontal, and the *posterior half of the third frontal convolution\** (Turner's inferior frontal), (Broca's). At the inferior margin there was a narrow ridge of slight eminence, which might have been the remains of the inferior border of the third. With these exceptions, the destruction of the posterior half of this convolution was complete, both as regards its grey and white matter. Its inferior boundary was the superior marginal convolution. The bottom seemed to be an anatomical limitation, as it was smooth, rounded, and presented no evidence of morbid action. Incision proved it to be the extra-ventricular nucleus of the corpus striatum. The edges of this lesion implicating the convolutions were ragged, which was suggestive of erosion, but there was no indication, by induration, softening, or thickening of the membranes, of inflammatory action.

Microscopical examination of the grey matter taken from the orbital lobule, and from the various superior gyri, showed few nerve cells, and these few had undergone almost complete fatty or fuscous degeneration. The nerve fibres were found moniliform, and were so distinctly defined as to suggest that they were thickened. The vessels had, attached to their external coat, a finely granular material of a yellow colour and slightly refracting. This was in greater quantities at their bifurcations. On one large vessel was found great proliferation of nuclei.

Amyloid bodies were seen in large quantities in the deeper layers of the convolutions, but not very markedly present in the outer. In the former situation they were seen with a double contour, and in some cases with a granular centre. In size they varied from that of one to two blood corpuscles.

There was slight dilatation of the aorta and a few atheromatous patches on the valves, which were thin, and the mitral orifice was small.

It is needless to enter into the pathological conditions elsewhere in this autopsy. Suffice it to say that the cause of

\* We submitted the specimen to Mr. Turner, Professor of Anatomy in the University of Edinburgh, who authorizes us to state that in his opinion the above description is correct. He would only add that he considers that rather more than one half of Broca's convolution was implicated.

death was caries of the vertebræ, resulting in atrophy of the cord, which accounted for the paraplegia.

In order that this society might see the specimen in its entirety, no microscopic sections have been made; but this will be done within a few weeks, and the result reported. Whatever it may be, it cannot alter the conclusion to be drawn from the naked eye appearances.

*Commentary.*—Perhaps the most convenient method of studying the bearings of this case on the question of the localization of language will be to take up *seriatim* the three following conditions in cerebral symptomatology and pathology. There may be—

- 1st—Aphasia with a lesion.
- 2nd—Aphasia without a lesion.
- 3rd—A lesion without aphasia.

The first condition, aphasia with any brain lesion, may be a mere coincidence of circumstances; that is to say, this affection may be but a simple concomitant of a lesion, not the direct result of it.

Lesions occurring with aphasia are various in seat, extent, and kind. As regards seat, they have been found in the right hemisphere and in the left, in the anterior, the middle and posterior portions of each hemisphere, in the medullary as well as in the cortical substance of the brain, and in the medulla oblongata. Their extent has also been variable, some involving both frontal lobes, or only one, others the middle lobe of either side, while many have been circumscribed and confined even to portions of particular convolutions.

Their kind is generally threefold—softening, localized atrophy, and excavation.

That such different lesions should occur with the affection of speech, and this affection oftentimes the only indication of the mischief within, is, to say the least, strange and mysterious. The method of procedure which may in some degree tend towards the solution of the mystery is to calculate the frequency of the speech-perversion occurring with lesion of different portions of the brain, and to see if the result warrants the throwing aside of the coincident theory, and the adoption of a belief in their relations as causes and effects. It is from the frequency of certain lesions having aphasia as one of their concomitants out of which have sprung the many theories as to the seat of the organ in which resides the so-called faculty of articulate language. Each theorist has arrayed his morbid facts, and demanded credence in his

belief; but a lesion occurring at the chosen spots without aphasia militates against this demand.

Explanatory theories have been advanced of the fact that aphasia occurs more frequently with lesions of the left hemisphere than with those of the right—according to some twenty times, according to others only three times more often. We allude to the education theory of Broca, Moxon, and its modification by Baillarger and Hughlings Jackson, that founded by Gratiolet on his observations on the priority of development, and that of Bateman on the direct blood supply. These failing, we must, with Dr. Bastian, confess “that we stand before a mystery, of which at present no adequate solution has been offered.”

That lesions are as common on the right side of the brain, taken as a whole, as on the left, is a statement which is daily borne out by facts, for hemiplegia, a frequent result of unilateral injury, is indeed slightly more common on the left than on the right side of the body. This is all the more curious, as the greater liability of the left side to embolus of the middle cerebral artery and consequent right hemiplegia throws the onus of the causation of the greater number of cases of left hemiplegia on the posterior and middle lobes of the right hemisphere.

The frontal lobes stand first in order of frequency as to the coincidence of lesion of their substance with aphasia, as compared with the other lobes. This may be probably explained by the fact that the anterior portion of the brain is much more tolerant of injury than the middle and posterior, where such morbid conditions as we often find in the frontal lobes, would prove fatal within a period too short for the development of psychological symptoms. They are also, we believe, more frequently the seat of the kinds of disease which have been especially coincident with aphasia, and further, that the left frontal lobe, as contrasted with the right, stands in the same relation in order of frequency of lesion of its substance with aphasia, as do the frontal lobes to the rest of the cerebrum. The reason of this is that, from physical causes, emboli are peculiarly prone to resort to the left middle cerebral artery, and the consequence is the greater liability of the adjacent tissues to atrophy or softening, which, gradually implicating a vessel or vessels, cause an apoplectic clot in the region best suited physically for its presence, and where it is least likely to cause sudden death. Having, therefore, lesions in the left frontal lobe more frequently than in the right, it is not to be wondered at that they are found more often coincident with

an affection of language common to many other lesions in other parts of the encephalon.

The question now arises, does the narrowing of the limits of these lesions, that is to say, their localization in a particular convolution, or part thereof, concurring with aphasia, lessen the probability of their being mere coincidences? Our answer is in the negative, and in so answering we take up the position that nothing less than the never failing association of aphasia with the lesion of the asserted seat, and never the lesion without the aphasia, can establish as a positive physiological fact that there is a locus for the faculty of language. Whether this co-relation has uniformly been present will be discussed when considering the third condition.

The lesion most commonly met with in the left frontal lobe is found in its postero-infero-external region, and being accompanied very frequently, although by no means invariably, by aphasia, it has been concluded that it involves the organ or locus whence emanates the faculty of language. Lesions are rare in this precise spot on the left side, for reasons indicated above, but certain of those which have been recorded have been noted as associated with an impairment of language. The question is, whether the proportion of these circumscribed lesions occurring on the left side, with aphasia, is not in equal ratio to the lesser frequency of those in the right side, also with aphasia, and whether this affection is not as common to one as to the other must be left to further pathological research. Unluckily we have comparatively few accurately reported cases. We have a mass of reports of patients exhibiting the symptoms of aphasia, most of which are unsupported by pathological demonstration, and rest solely on symptomatology. The autopsies in which atrophy of this convolution on either side has been observed and correctly noted, are, considering the frequency of the symptom, extremely rare, and so contradictory as to throw doubts on the conclusions which have been deduced.

Language, according to many prominent authorities, appears to have two chief factors, viz., the memory of words, and the faculty which presides over the co-ordination of the movements by which words are produced. They seem to be independent of each other, as one can be affected without detriment to the other. This, however, is doubted by Professor Sanders, but our experience does not entirely coincide with his opinion. Each of these factors is said to have a locus of its own, injuries of which result in aphasia or amnesia respectively. M. Broca confines the co-ordinating



power to the posterior third of the left inferior or third frontal convolution. In this Dr. Ogle agrees with him, but affirms in addition a belief that the seat of verbal memory lies in some contiguous convolution. Dr. Bastian does not locate the lesion productive of impairment of speech, but holds that aphasia is the result of injury to the efferent fibres between the cortical substance and the corpus striatum, or of that body itself; and Dr. Robertson, of Glasgow, is inclined to believe that these efferent fibres are those connecting the external convolutions of the left frontal lobe with the motor centres. Professor Sanders leans to the opinion that the Island of Reil is intimately connected with either affection, and Dr. Maudsley, mainly on metaphysical grounds, ignores the theory of localization altogether. The pathological appearances in the specimen now before you do not stand opposed to Dr. Bastian's theory, so far as amnesia is concerned, for a considerable area has been taken away by the excavation; but they do support his idea that the motor tract is diseased in aphasia, for we have no history of permanent hemiplegia, no lesion of the motor centres has been detected, and we have no clinical reason for supposing it ever existed. It will be remembered that the excavation was anatomically arrested at the extra-ventricular nucleus of the corpus striatum, and no aphasic symptoms presented themselves. These facts present negative support to this author's opinions. Nor does this case, taken alone, militate against Dr. Ogle's rider on Broca's proposition; how it utterly breaks up their combined theory of localization of the co-ordinating faculty will be discussed under the third condition, that of a lesion and no aphasia.

The second condition, aphasia without a visible lesion, is by no means uncommon.\* Functional derangement of the whole or part of an organ causes symptoms and perversion of action as well as apparent pathological change. The term "functional" may be objected to; it is here used simply as implying undemonstrable morbid change. Such derangements, in nerve tissue most particularly, are probably due to some alteration in the chemical composition of parts,

\* Dr. J. Batty Tuke attended, some years ago, in company with Drs. Skae, Begbie, senior and junior, Sanders, and P. M. Deas, the autopsy on a distinguished Edinburgh physician, who for many years before his death had been the subject of gradually increasing aphasia, and in whose brain the only pathological appearances which presented themselves were general atrophy, with compensatory serum and adhesions of the dura mater to the calvarium. If anything, the general atrophy of the right frontal lobe was slightly more than that of the left. There was no definite lesion of individual parts.

some irregularity in molecular movements, or some change in the electrical conditions. "These are the inscrutable recesses of nerve life." The transitory, periodic, and recurrent nature of many attacks of aphasia and amnesia, and their causation from emotional excitement, render the supposition highly probable. Loss of speech, especially of the amnesic form, often arises from such general conditions as over exhaustion from excessive mental strain, or even from undue physical exertion, or from "the occurrence of some febrile illness."

This condition of aphasia without a lesion does not logically damage either the "cause and effect" or the "coincident" theory, as the maintainer of the first may assert that the locus, although not pathologically changed, has been functionally out of order, whilst the holders of the second might reply that it is impossible to have such an aberration of faculty, if permanent, without some resultant, organic, and demonstrable change. If not permanent their power of reply would be paralysed, as functional derangements are generally transitory. Until our knowledge of microscopic cerebral pathology is more advanced this position cannot materially affect the general question.

We now come to the consideration of the third and most important condition; most important, for on the demonstration of the existence of a lesion of the third left frontal convolution, *without aphasia ataxica*, the theories of Broca and Ogle, as to their being the absolute seat of the co-ordinating function which regulates speech, must fall to the ground. If this particular gyrus is the organ, its destruction must result in loss of the function. We believe the demonstration is before you. You have all seen that in addition to portions of three other convolutions (the ascending, parietal, and frontal) and the lower margin of the second frontal, the posterior half of Broca's gyrus (he is content with the posterior third) has been eroded, absorbed, and utterly destroyed, both as regards the white and grey matter. And what was the speech symptom? Not aphasia ataxica, which must of necessity have ensued had the theories in question been correct. Not a loophole for escape is left, for this woman was right-handed, and so nothing can be founded on the probability of the left hemisphere having been neglected in its education.

The lesion and phenomena of this case also stand opposed to the opinion of Dr. Robertson, as the medullary substance, the efferent fibres of which are considered by him to be conveyers of will to the motor centres in regard to articulate language, is destroyed.

The occurrence of a modified amnesia in this case must not be overlooked. The lesion is very extensive and complete, but the speech impairment was only partial. More thorough amnesia might have been expected from the nature of the injury, not only because three other important gyri are implicated, but also, if the seat of memory of words is in this neighbourhood, from the highly probable supposition that such a lesion would have affected the functional activity of a "contiguous" convolution. What is contiguity as applied to the brain? Very little research would suffice to constructively\* destroy (if the expression may be permitted) the whole of the frontal lobes without any symptoms of amnesia having presented themselves in the various patients, and therefore it may be concluded that the "contiguous convolution" of Ogle does not lie in the frontal lobes.

A great deal of stress has been laid on the possibility of the coincidence of the occurrence of speech symptoms with lesions of the cerebrum at large, and of the third left frontal convolution in particular. The frequency of the observation is such as to preclude the conclusion that they play no part in the causation of *amnesia*. They are, we believe, the causes, but by no means the necessary or direct ones, of the symptoms, simply on account of the influence their presence must have on the nutrition and function of the hemispherical ganglia generally, not on account of the destruction of any single particular convolution. The presence of such morbid conditions in so delicate an organ could not be expected to remain long without some results. Why, in such a large proportion of cases, speech should be affected, it is impossible to say, unless there be some connection between the decay caused by irritation and that caused by the natural decay of old age. Amnesia is perhaps the first symptom of the decay of old age, and it is at least noteworthy that under morbid influences the loss of the memory of words is an early symptom. We see no reason to doubt but that a similar lesion, if it *could* have existed in another part of the brain, would have produced the same result as far as word-memory is concerned, for to the irritation caused by it is due the general brain degeneration evidenced by the atrophy of the nerve cells, and the presence of large numbers of amyloid bodies in the three outer layers of the grey matter. Dr. J. Batty Tuke, in his investigations

\* On the evening on which this paper was read we exhibited to the Medico-Chirurgical Society a specimen in which the medullary substance of the left frontal lobe had been destroyed, owing to the presence of a large apoplectic clot. There had been no speech affection.

into microscopic cerebral pathology, has frequently observed that, in cases of senile insanity, the cells of the second and third layers of the grey matter of the superior surface of all the convolutions have undergone or were undergoing degeneration and atrophy. To this extent such lesions as that now before you may be held to be the cause of the effect, but by no means necessarily so, as irritation of the hemispherical ganglia productive of the same symptoms can be induced from other very various influences.

It is impossible to dismiss this case without regarding its bearings on *Aphasia*. This speech-symptom is very generally associated with hemiplegia, whilst the motor powers of the lips, tongue, and face are unaffected, and articulation, a delicate and complicated motor act, is the sole function of these parts perverted and destroyed. Hemiplegia consequent upon lesion of the ventricular portion of the motor tract is not unfrequently unaccompanied by Aphasia. These two facts, taken together, would seem to show that the store-house of the faculty of articulation has a definite locus.

In this case we had no paralysis, no aphasia, and no implication of the extra-ventricular nucleus, the disease having been anatomically arrested at that body. In the study of future cases, in which lesions of any part of the motor centres are accompanied or not accompanied by aphasia, it will be advisable to accurately note the extent and direction of the morbid tracts in relation to this nucleus. Judging from its abundant vascular supply, and from the large size and number of its cells, its function must be important. It is impossible, on existing records, to suggest an hypothesis as to how far this portion of the corpus striatum is associated with the faculty of articulate speech; we merely offer the suggestion in order that pathologists may carefully observe the extension of disease from within outwards, and from without inwards, in relation to this nucleus, and tabulate them, with clinical observations as to speech-affection. In its favour we may add the following probabilities:—First, that lesions of the frontal convolutions which have been associated with aphasia had extended inwards to this nucleus, and those which have been without aphasia had not (this case is an example); and, second, that those lesions which have caused hemiplegia *and* aphasia had extended forwards and outwards to this nucleus, and those without had not.

However, the only definite result we claim as deduced from this case at present is its complete testimony to the erroneous nature of Broca's convolutional localization.

*The Abolition of Seclusion.* By T. O. WOOD, L.R.C.P. Edin., M.R.C.S. Eng., Medical Superintendent of Dunston Lodge Asylum, Lecturer on Psychological Medicine in Durham University.

(Read at a Quarterly Meeting of the Medico-Psychological Association, held at Edinburgh, on November 30th, 1871.)

I have ventured to undertake the responsibility of bringing this important subject forward, in the hope that any little I can do may go some way towards abolishing a line of treatment which I consider to be unsatisfactory in its results and demoralising in its tendencies. Unsatisfactory in its results by its failing to raise the percentage of the recoveries of our patients, and in its being of no real benefit to those so treated; and demoralising in its tendencies by ever being before the attendants as a tempting means by which they may easily get rid of a troublesome patient to gratify their own idle propensities.

My reason for bringing this subject before you is because I have treated the insane without seclusion, and have found the treatment to be satisfactory; so much so that the recoveries of my cases so treated have been as numerous as those whose treatment included the practice I now condemn, and fully bear out the statistics which I shall presently place before you.

I feel confident as the system of non-seclusion becomes more matured, when it is more generally adopted by asylum medical superintendents—when seclusion becomes, like restraint, more completely a thing of the past, our asylum patients will be more speedily recovered, and their general condition ameliorated. The experiment having been tried, and, so far, found satisfactory, it behoves us to work it out more fully, so that by combined testimony we may be able to prove either its utility or its uselessness, and by a more extended trial we may get more decided data to go upon; and thus, having the experience of many, instead of a few, that experience may establish the principle that seclusion is not worthy of being considered a scientific means of asylum treatment.

Restraint was at one time deemed necessary; it has been

abolished, or is now so very seldom adopted that it can scarcely be said to exist. Why may not seclusion be abolished, or at any rate be as rarely employed as restraint?

The subject is one more of practical difficulties than theoretical objections. It is the *how* to do it rather than the *why* that will be "the mountain in the way," and it will be my endeavour in this paper to point out how these practical difficulties are more apparent than real; more for want of trying, as I myself found out, than failure on trial. It has been said that, by placing a noisy and troublesome patient in seclusion, he is removed from contact with his fellow creatures, whose society produces or keeps up his excitement, and thus the order of the asylum is maintained with benefit both to the patient secluded and to those patients whose peace and comfort were disturbed by him.

Have we thought of the ultimate effect this seclusion has upon the mental condition of the patient? Is this mental quietude real, or is it only apparent? Are we not doing our patient a great injustice, and compelling him to suffer what ought really to be endured by those whose duty it is to manage, and not to shut him up to save trouble?

If shutting up a patient in seclusion does not produce any good effect upon the mental condition, if it only removes the ill effects of an unpleasant symptom from attendants and others, may not these ill effects recoil upon the patient himself, when a symptom is suppressed which otherwise should be allowed to run its natural course?

By secluding a patient, the subject of mental excitement, you remove from him all possibility of obtaining exercise, and that exhaustion of physical energy which otherwise would be expended, as, for instance, in rapid walking exercise out of doors.

This expenditure of physical energy is, I hold, the most valuable remedial agent in cases of mental disease with or without excitement, and a natural curative process which acts favourably, not only on the mind, but also upon the bodily condition of the patient, and which should always rather be encouraged, than suppressed by seclusion.

In the treatment of small pox you do not endeavour to suppress the eruption. You rather draw it out; in fact, you encourage it, so ought we to do in treating excitement as a symptom of mental disease; we should not suppress it by using seclusion, we should draw it out and judiciously encourage it, and so by allowing the necessary amount of

physical expenditure both body and mind are improved. Thus you allow an evidence or symptom of the working of disease to go on, not checking the disease by suppressing a symptom, but guiding it in its manifestations, and directing it in the path of recovery. Again, by secluding a patient and preventing exercise, sleeplessness is incurred, requiring sleep to be artificially produced by sedatives. Dr. Maudsley's remarks on the subject seem to me to be more particularly applicable to such cases.

He says: "In brief, then, it seems to me that we are yet grievously in want of exact information with regard to the real value of sedatives in the treatment of insanity. Everybody gives them because there is mental excitement, and it seems a proper thing to subdue the excitement; but is it quite certain that it always is a proper thing to stifle excitement in that way?"\* If, therefore, as Dr. Maudsley says, excitement may not properly be stifled in that way, why stifle excitement at all, either by seclusion or sedatives?

In fifty asylums, containing an average number of 28,673 patients, seclusion was practised 5,462 times, showing that for a little over one patient in every five seclusion was once employed. Whilst on the other hand we find that out of those fifty asylums, four, with an average number of 531 patients each, never used seclusion once during last year; and that in three asylums, with an average number of 827 patients each, and a total number of 2,481, the cases secluded only amounted to four, and that in one large asylum, wherein the number of patients was upwards of 1,400, the number of cases of seclusion was only one.

Are we not, therefore, justified in enquiring into this subject? I think that if so large a number of cases can be treated entirely without seclusion, and if in those asylums where seclusion *is not* practised the average number of recoveries is above that of asylums wherein seclusion *is* practised, we can only infer that seclusion is, as I said before, a practice to be condemned. And when I tell you that in one asylum the cases secluded were *one in six*, and that in another they amounted only to *one in 1455*, I think you will agree with me that there is a wide difference in the practice of our medical superintendents, that this difference ought not to be so great as it now is, and that seclusion is yet sadly too often employed. I think that air and exercise, with good

\* "Insanity and its Treatment," by Henry Maudsley, M.D., F.R.C.P., "The Journal of Mental Science," October, 1871.

food and careful attention during the day, and sleep at night, will do more for the cure of insanity than all the seclusion in the world. This requires a sufficient staff of attendants, and plenty of airing-court accommodation. I fully believe that any Superintendent can do without practising seclusion, and that after a fair trial the result will be so satisfactory as to encourage him to abolish it altogether. Good attendants are, no doubt, difficult to obtain, though how to get the better of this difficulty I must leave to abler heads than mine to devise. Airing courts are always more at the command of the Superintendent, and are only a question of arrangement, which we may consider to be no difficulty at all.

In conclusion, I venture to lay before you, as briefly as possible, the means I have adopted to attain my object, and I trust some good may come of my imperfect attempt to advance our treatment. Unfortunately, pressure of work has prevented me treating the subject more completely.

The means I have found most successful in treating patients without seclusion, have been—1st. The abstaining as much as possible from the employment of sedatives during the day, and only giving medicine as a sleep procurer at bedtime; 2nd. Taking care to have always a sufficient number of attendants on duty, so that excitable patients might be closely watched; and 3rd. Having a separate airing court set apart for the sole purpose of removing an excitable patient into before the excitement is allowed to run too high. By this means you remove your patient from contact with the patients who produce or keep up that excitement. At the same time every opportunity is offered for exercise and fresh air, which I need not mention as being much better for the patient than seclusion.

During the last year I have had more troublesome patients under my care than I ever had before, and by these means I have been able to treat these cases and guide them to a most satisfactory convalescence. More particularly I may mention, among many, one patient, a violent epileptic, who, when he felt himself becoming excited, requested to be placed in the separate airing court, and by this means he walked off his excitement alone, with benefit to himself and his fellow patients. I have now abolished seclusion altogether, and as yet have had no cause to regret having done so, the recoveries of my patients for the last year amounting to 52.6 per cent., which is, I believe, considerably above the average result of asylum practice.



*Insanity and Homicide.*

The recent trials for murder, in which insanity has been alleged for the defence, whatever differences of opinion they may have given rise to, have clearly shown how entirely unfitted a common jury is to decide the delicate and difficult question of a prisoner's mental state. Had the wit of man been employed to devise a tribunal more unfitted for such a purpose, it might have exhausted itself in the vain attempt. It is one of the anomalies of British jurisprudence that while in an action for libel or any civil injury a special jury may be claimed, and the services of men who are above the lowest levels of ignorance and prejudice be thus obtained, it is quite otherwise when a person is on trial for his life. In this most momentous issue, however complicated the circumstances, however obscure the facts, he must stand the verdict of twelve common jurymen. In ordinary cases of murder, when the facts are such as any person of average sense and experience may judge of, the system works sufficiently well, or at any rate no great harm ensues; but in any case in which it is necessary to form a judgment upon scientific data, a common jury is assuredly a singularly incompetent tribunal. The very terms of science they are ignorant of, and they either accept the data blindly on the authority of a skilled witness, or reject them blindly from the prejudice of ignorance. The former result is commonly what happens in regard to scientific evidence of poisoning; the latter is commonly what happens in regard to scientific evidence of insanity. There are few persons who, without having had a special chemical training, would venture to give an opinion on the value of the chemical evidence given in a case of poisoning, but everybody thinks himself competent to say when a man is mad; and as the common opinion as to an insane person is that he is either a raging maniac or an idiot, it is no wonder that juries are prone to reject the theory of insanity which is propounded to them by medical men acquainted with its manifold varieties. It would seem to be an elementary principle of justice that a prisoner on trial for his life should have the right to claim a jury of men specially competent, or at any rate not absolutely incompetent, to judge of the facts on which his defence is to be based.

It is an additional evil of the present system that judges

too often share the ignorance of juries, and surpass them in the arrogant presumption which springs from ignorance. Instead of urging them to throw off all prejudice, and aiding them with right information, they sometimes strengthen their prejudices by sneers at the medical evidence, and directly mislead them by laying down false doctrines. They may even go so far as to flatter them in the opinion that they, as men of common sense, are quite as well able as medical men to say whether a person is insane or not. In the last number of this Journal we gave a report of a trial which took place in Scotland for the reduction of a will, in which the judge directed the jury, with the greatest assurance, that the symptoms which preceded insanity and indicated its approach, in an ordinary case, went on increasing as the disease advanced, and implied that as they had not done so in the case in question it was preposterous to allege insanity.

To our mind the evidence of insanity in that case was conclusive, but at any rate the statement of the judge was utterly untrue, as a very little knowledge of insanity would have taught him; and we cannot help thinking that the authoritative enunciation of such false doctrine to a jury is nothing less than a judicial misdemeanour. One cannot justly complain that judges should be ignorant of insanity, seeing that only by long experience and study is a true knowledge of it to be acquired; but it is a fair ground of complaint that, being ignorant, they should speak as confidently and as foolishly as they sometimes do. Here, as in other scientific matters, it is not intuition, but experience, which giveth understanding.

Not only is it the fact that judges are ignorant, but they are too often hostile. Governed by the old and barbarous dictum that knowledge of right and wrong is the proper criterion of responsibility when insanity is alleged, they resent angrily the allegation of insanity in any case in which the person has not lost all knowledge of right and wrong. Believing that medical men are striving to snatch the accused person from their jurisdiction, they are jealous of interference, are eager to secure a conviction, and sometimes lose the impartiality becoming the judge in the zeal proper to the partisan. The reporters are happily good to them, in forbearing to report all they say and do, or we fear that the dignity of the bench would have suffered more in public estimation even than it has done of late years.

It is useless to say smooth things when things are not smooth. There is a direct conflict between medical knowledge and judge-made law, which must go on until bad law is superseded by just principles in harmony with the teachings of science. For many years, by all authorities on insanity, in season and out of season, the truth has been in vain proclaimed; many times have futile attempts been made to arouse attention to the iniquity of the law as laid down by the judges; but it is still necessary for us to go on protesting, as our forefathers did, and as our children's children may have to do. We may, at any rate, take leave to characterise the administration of the law on every occasion in the plain terms which it deserves. Under the name of justice, grievous injustice has sometimes been done, and it would be easy to point to more than one instance in which murder has been avenged by the judicial murder of an insane and irresponsible person. The saddest and most humiliating disease with which mankind is afflicted, and which should rightly make the sufferer an object of the deepest compassion, only avails in England in the nineteenth century to bring him, in the event of his doing violence, to the edge of the scaffold or over it. To this point have eighteen hundred and seventy-two years of Christianity brought us! And science protests in vain! Without laying claim to much gift of prophecy, one may, perhaps, venture to predict that the time will come when the inhabitants of the earth will look back upon us with astonishment and horror, not otherwise than as we now look back upon the execution of old women for witchcraft in past times—a barbarity which the judges were the last to be willing to abandon, which they clung to long after it had been condemned by enlightened opinion. Indeed, there has not been, as Mr. Bright once said in the House of Commons, a single modification of the law in the direction of mercy and justice which has not been opposed by the judges.

The ground which medical men should firmly and consistently take in regard to insanity, is that it is a physical disease; that they alone are competent to decide upon its presence or absence; and that it is quite as absurd for lawyers or the general public to give their opinion on the subject in a doubtful case, as it would be for them to do so in a case of fever. For what can they know of its predisposing and exciting causes, its premonitory symptoms, its occasional sudden accession, its remissions and intermissions, its various phases of depression, excitement, or violence, its different symptoms,

and its probable termination? Only by careful observation of the disease can its real character be known, and its symptoms be rightly interpreted: from this firm base medicine should refuse to be moved.

It is said sometimes, however, in vindication of the law, that it does not and cannot attempt to apportion exactly the individual responsibility, but that it looks to the great interests of society, and inflicts punishment in order to deter others from crime. The well-known writer, W. R. G., in a letter to the "Pall Mall Gazette," has recently given forcible expression to this principle, and maintains that if men would get a firm grasp of it the conflicts which now occur would cease. He quotes with approbation the saying of the judge who, in sentencing a prisoner to death for sheep-stealing, said—"I do not sentence you to be hanged for stealing sheep, but I sentence you to be hanged in order that sheep may not be stolen." Here we see how entirely the writer has failed to grasp the real nature of insanity *as a disease*, for which the sufferer is not responsible, and which renders him irresponsible for what he does. Were one half the lunatic population of the country hanged the spectacle would have no effect upon the insane person who cannot help doing what he does. If a boy in school were wilfully to pull faces and make strange antics, the master might justly punish him, and the punishment would probably deter other boys from following his example, but it would have no deterrent effect upon the unfortunate boy whose grimaces and antics were produced against his will by chorea. The one is a proper object of punishment; the other is a sad object of compassion, whom it would be a barbarous and cruel thing to punish. To execute a madman is no punishment to him, and no warning to other madmen, but a punishment to those who see in it, to use the words of Sir E. Coke, "a miserable spectacle, both against law, and of extreme inhumanity and cruelty, and which can be no example to others."

Moreover, it is not necessary to hang a lunatic in order to protect society, or in order to punish him, for it can protect itself sufficiently well by shutting him up in an asylum; and the prospect of being confined in a lunatic asylum is not one which is likely to encourage a man to do a murder; on the contrary, it is one which excites as much horror and antipathy in the minds both of sane and insane persons as can well be imagined.

And, finally, as the law did not prevent sheep-stealing by

hanging sheep-stealers, but brought itself into discredit by offending the moral sense of mankind; so, likewise, it will not, by hanging madmen, prevent insane persons from doing murder, but must inevitably bring itself into contempt by offending the moral sense of mankind. Is not this result happening now? Has Mr. Baron Martin added anything to the strength and dignity of the Bench by his conduct in the recent trial of Christiana Edmunds? That conduct has elicited such comments from all quarters as it has not often before happened in this country to find made on the administration of justice; and, if the law has not been brought into contempt, it has received a rude shock among a law-abiding people. The uncertainty which now exists, whether a person shall be convicted as a criminal or acquitted as insane, and the accidental character of the result, cannot fail to be injurious to the welfare of society. And if the present agitation subsides, as former agitations have subsided, without any step in advance being made, the bad law is none the less certainly doomed. As we have said on a former occasion, "men will go mad, and madmen will commit crimes, and in spite of prejudice, and in spite of clamour, science will declare the truth. Juries, too, will now and then be found enlightened enough to appreciate it: and if the voice of justice be unsuccessfully raised, it will be but a doubtful triumph for prejudice when science shall say—'you have hanged a madman.'"

It will not be of much use to point out once more, what has been pointed out over and over again, that the manner in which scientific evidence is procured and taken in courts of justice is very ill fitted to elicit the truth and to further the ends of justice. One side procures its scientific witness, and the other side procures its scientific witness, each of whom is necessarily, though it may be involuntarily, biassed in favour of the side on which he is called to give evidence—biassed by his wishes, or interests, or passions, or pretensions. It is not in human nature entirely to escape some bias under such circumstances. In due course he is called into the witness-box and examined by those who only wish to elicit just as much as will serve their purpose; he is then cross-examined by those whose aim is to elicit something that will serve their purpose; and the end of the matter seldom is "the truth, the whole truth, and nothing but the truth." Having regard to the entire ignorance of scientific matters which counsel, jury, and judge shew, it may be truly said that the present system of taking scientific evidence is as bad

as it well can be, and that it completely fails in what should be its object—to elicit truth and to administer justice. “The incompetency of a court as ordinarily constituted, is,” as we have formerly said, “practically recognised in a class of cases known as Admiralty cases, where the judge is assisted by assessors of competent skill and knowledge in the technical matters under consideration. Moreover, by the 15th and 16th Vict., c. 80, s. 42, the Court of Chancery, or any judge thereof, is empowered, in such way as he may think fit, to obtain the assistance of accountants, merchants, engineers, actuaries, or other scientific persons, the better to enable such Court or judge to determine any matter at issue in any cause or proceeding, and to act upon the certificate of such persons.” The Lords Justices seldom, if ever, decide on a question of insanity without calling for a report upon the case from one of the Medical Visitors in Lunacy. If the English law were not more careful about property than about life, it would long ago have acted upon this principle in criminal trials.

However, he who advocates a reform in the legal proceedings of this country is assuredly a voice crying in the wilderness, and with less result than the Baptist had when he cried aloud there. It is not likely that anything we can say will induce those who have the privilege or pain of constituting our Government to leave for a time the ambitious struggles of politics, and to devote their energies to a reform of the law. And yet a Government could not be better employed than in labouring to effect such a reform. A system of just laws and a simple and expeditious administration of justice would assuredly conduce more to the welfare of the community than years of Parliamentary squabbles about politics. Many Parliamentary questions which have occupied much time and made a great show in their day will look very small, if they are ever heard of at all, in history, while the reputations that grew out of them will have been lost in oblivion; but an effectual reform of the jurisprudence of the country, which is now an urgent need, would be a lasting benefit to the community, and an eternal honour to the statesman who initiated and carried it through.

Having made the foregoing observations in order to discharge our conscience, though it has been a weariness both to flesh and spirit to say what has been said over and over again, we proceed to notice some of the recent trials for murder in which insanity has been alleged in support of the plea of “not guilty.” The first to which we may call attention is

one which took place at Derby, before Mr. Justice Lush, on December 16th last. The following report is from the "Times":—

Samuel Wallis was indicted for the wilful murder of his wife at Brampton, near Chesterfield, upon the 8th of November.

The prisoner was a shoemaker, and had been married for above eight years. He had two children, a boy of six years of age and a baby of one year and a-half. On the night of the 7th of November the wife and baby were in bed, and the boy lay across the foot of the bed. He heard his mother scream and felt her fall over him. His father went away, and the boy took the baby in his arms to his grandmother's house. They were in their night dresses and had no shoes on. He was only six years old. He stated that he thought his father and mother were fighting. He had never heard them quarrel. He once saw his mother hit his father with her elbow, but he could not say if his father said anything.

Other evidence was given that they were a most affectionate couple.

The prisoner had stabbed his wife with a shoemaker's knife which he kept in the room for the purposes of his work. The wound was in the neck, and must have been almost immediately fatal.

A constable who apprehended him and brought him to the gaol said that the prisoner was very much excited during the journey by rail. The prisoner said, "I was up in the fields, and then I went down into the colliery. I came out again about dark. There was such a fearful thundering noise in the pit, I was so glad to get out. I thought I never could have got out. Brampton looked so black and dark, and trains were running up and down as fast as they could." The pit had not been worked for a long time, so that there could be no noise, nor were there any trains running at Brampton. As they went along the sky was red with sunset, and the prisoner said, "Look at the sky, it looks like hell fire; it's just as if they were burning brimstone."

Mr. Richards, surgeon, stated that he had attended the prisoner for some time. He suffered from derangement of the stomach and liver, and dejection of spirits. He was under the delusion that he would never recover. His health had improved latterly, and he was going to leave for change of air, by the witness's advice, the very day of the murder. He had been sent away for change of air before, but he only staid one day and then came back. This witness stated that the prisoner and his wife appeared to be a most affectionate couple. The witness gave it as his opinion that this was a case of homicidal mania. The principal ground of this opinion was the nature of the act, coupled with the complete absence of motive; but he also took into account the previous symptoms and the subsequent conduct.

Dr. Gisbourne, the surgeon of the gaol, had seen the prisoner since in gaol, and gave a similar opinion. The prisoner had stated to him

that the act was so impulsive he did not know what he was doing, and was horror-stricken when he discovered he had committed the act.

Mr. Vernon Blackburn contended, for the defence, that either some sudden quarrel might have occurred, which, acting upon his weak state of body and mind, had overpowered his reason and provoked him to inflict the wound upon a sudden impulse, without premeditation, or that he laboured under homicidal mania.

His Lordship, in summing up, directed the jury that the killing of another person was *prima facie* murder, and it was upon the prisoner to reduce the crime to a lesser offence or to show that he was irresponsible for his acts. If he had been provoked and irritated, and had, in consequence, struck a blow without malice prepense, then it would amount only to manslaughter. But there was no evidence of that. If, therefore, they could not see their way to that conclusion, they would then consider the second question—if the man was in a state of frenzy, and unconscious at the time. As to that, there was no evidence of insanity at any other time. He had no delusions, nor was his conduct eccentric. There was a complete absence of motive or reason for the crime. If they felt satisfied that he must have been visited with an uncontrollable frenzy by Providence, so as to leave his mind under no control, or so that he could not know the nature of the act he was doing, they must say he was not guilty. It might become a dangerous thing to permit this kind of defence to prevail; nevertheless, if they were perfectly satisfied it was so, they must say so. He could see no evidence to reduce the crime to manslaughter.

The jury, after an absence of about two hours, returned into court and found a verdict of *Guilty* of murder.

The Foreman then said—We recommend him to mercy on account of previous weakness.

His Lordship—Weakness of mind?

The Foreman—Yes.

His Lordship, in passing sentence of death, said.—The jury have deliberated anxiously, and have thoroughly weighed the evidence. They have found that you did not act under a sudden frenzy, nor from an infirmity which took away reason. Their recommendation will be forwarded to the proper quarter. I have no power to act upon that, but the recommendation will receive full consideration.

The recommendation did receive consideration, and the prisoner was reprieved. That he was insane at the time he committed the act, there can be no reasonable doubt. In fact, the case is almost a typical example of that form of mental disorder in which suicidal or homicidal acts are most often done. The symptoms exhibited by the patient previous to the act are limited to great mental depression of a hypochondriacal character, moodiness, and perhaps a morbid feeling



of despair concerning the state of his health or the state of his affairs ; his friends observe nothing more in him than that he is "moody or very low," and, if they are persons of the lower class, will, perhaps, describe him as "studying too much." Suddenly on some occasion his mental suffering rises to such a pitch of anguish or agony that he falls into a paroxysm of frenzy, during which he loses all control, and does violence to himself or to some one else, not knowing at the time what he is doing. By the homicidal act, which is a true *raptus melancholicus*, and which is usually directed against those who are most near and dear—by a mother against her children, by the husband against his wife—the patient is freed from his terrible emotion, becomes calmer than he has been for a long time, and may display no present symptom of insanity. Like Wallis, "he did not know what he was doing, and was horror-stricken when he discovered he had committed the act." In some cases there is a suddenly arising hallucination or delusion accompanying the deed of violence, but in other cases there is neither hallucination nor delusion ; the frenzy is a pure convulsion of the mind. We ought, perhaps, to apologise to our readers for setting forth such elementary information, but the ignorant and absurd statements which have been made recently in some of the general and in one of the medical papers prove clearly how little real knowledge of insanity may accompany the expression of very confident, but erroneous, opinions concerning it. The assertion repeatedly made, that in homicidal insanity some marked eccentricity of conduct, or some destructive act, or some actual hallucination or delusion, must always precede the act of homicidal violence, was as unfounded in fact as it was reckless in its boldness. All the peculiarity that has been observed in the patient by those who knew him may have been nothing more than what they would describe as lowness of spirits.

It was fortunate for Samuel Wallis that he consulted a surgeon about his stomach and liver, and was in this respect unlike some patients who, when similarly afflicted, assert that it is of no use to see the doctor, as he can do them no good ; for if he had not done so, there would have been little or no evidence of his insanity before the act to go to a jury. His own account of his strange sensations, though highly characteristic of the convulsive frenzy which suddenly seizes upon the ideational and sensory nerve centres in such cases, would have had little weight with judge or jury. As it was,

the judge pointed out "that there was no evidence of insanity at any other time. He had no delusions, nor was his conduct eccentric." The vulgar and mistaken notion that a man, if he be insane, must stand on his head on the housetop, or tear his clothes like a maniac, or dance a hornpipe and proclaim himself Emperor of China in the streets! The jury, influenced by the judge's statement, or agreeing with him "that it might become a dangerous thing to permit this kind of defence to prevail," found Wallis guilty, but recommended him to mercy "on account of previous weakness of mind." Had the prisoner been tried by some of the judges, it is almost certain that he would have been executed, as other similarly insane persons guilty of homicide have from time to time undoubtedly been. Had judge and jury in this case possessed any knowledge of the nature of insanity, we may confidently assume that they would not have convicted Wallis, but would have acquitted him on the ground of insanity.

The next case to which we call attention furnishes a striking illustration of the uncertainty of English law, when the defence of insanity is set up. It was tried at Exeter, in December last, before Baron Martin:—

James Taylor, aged 38, a bandsman of the Royal Navy, was indicted for the wilful murder of Henry Ryder.

The prisoner had, as appeared by the evidence, served on board Her Majesty's ship *Rattlesnake*, and was paid off in April last from the *Thalia*, on board which he returned to Plymouth. The deceased was a dockyard pensioner living in George-street, Plymouth, and nearly 80 years of age. He occupied one room in the house, and was heard by a woman who lodged in the next room to come upstairs on the 1st of September and go to his room. On reaching this he was heard to say to some one "Come, it's 12 o'clock," which was followed shortly afterwards by a loud shriek. Mrs. Rowe, the lodger, who heard this, called up her daughter, and looked through the key-hole, when she saw the prisoner, whom she had seen about the house in the morning, leaning over the bed. It would appear that the door had been locked by the daughter on the outside, for Mrs. Rowe, on returning to her room, heard a knocking at the door of the room of the deceased. She then went and opened it, and found the prisoner inside, who pointed to the bed and said, "I have killed him." He then pointed in another direction and said, "There are all his things, safe. I have not touched anything;" and added, "I have called a policeman, and he is coming upstairs." A policeman gave evidence that his attention was called to the prisoner at the window, who called to him and said, "Policeman, come up; I have committed murder. I want you to examine the room before I go away." On the policeman going to the room the

prisoner said, " I have murdered that old man. I intended doing it, and I have a reason for doing it. He brought me to what I am. I have done it with a 'flat,' which you'll find in the bed somewhere." The prisoner made similar statements to the inspector when charged. A "flat" or heating iron, such as is used for heating a washerwoman's iron, was found in the bed. It had been sewn up in canvas, showing some care in the preparation. The deceased had been struck on the head in several places with this instrument with force enough to fracture the skull, and death had followed almost immediately. No motive for the crime was suggested other than a statement of the prisoner that when he came home from sea the old man's daughter had robbed him of all he had, and afterwards the old man would do nothing for him. When apprehended the prisoner was perfectly sober.

For the defence Mr. St. Aubyn called first Dr. Hunter, a surgeon of the Royal Navy on half-pay. He deposed that he had known the prisoner for about four years on board ship. During that time he had constantly to treat the prisoner medically, as he returned after every time of leave with incipient *delirium tremens*, so much so that Dr. Hunter had requested that leave should not be granted to the prisoner. The prisoner had also received a blow on the head at the Cape of Good Hope, in a scuffle, and since then his condition had greatly changed. The witness drew a distinction between a state of drunkenness and a state in which the brain had given way from constant attacks of *delirium tremens*, and said that from the evidence, and from his knowledge of the prisoner, he felt certain that the act was done in one of those conditions of mind succeeding some drinking bout, and in his judgment the prisoner would not be responsible for his actions. He added it would be like a dream to him.

Mrs. Trist, with whom the prisoner lodged, deposed to his condition after drinking, and to several attempts on his part to commit suicide. Two days before the 1st of September there had been a regatta, and the prisoner had drunk to excess.

Mr. William Eastlake, Deputy-Judge-Advocate of the Fleet, deposed to seeing the prisoner several times since his return to Plymouth, and to his peculiarity and inability to make out any account of the moneys that were to be paid to him. This happened when the prisoner was sober, and the witness, in answer to the learned Judge, said he had formed an opinion that the prisoner was of unsound mind.

The learned Judge at this stage interposed, and said that it would be very unsafe to convict the prisoner, and the jury Acquitted him on the ground of insanity.

He was directed to be detained until Her Majesty's pleasure should be known.

We entertain no doubt that the verdict was a just one, but at the same time we cannot help feeling that if the prisoner had not, by being a bandsman of the Royal Navy, been par-

ticularly favourably placed for the observation of his previous mental state, and for thus obtaining exceptionally strong and skilled evidence thereof at his trial, the result might have been different. Suppose he had been a London costermonger, or person of that class, whose accounts no Deputy-Judge-Advocate overlooked, and whose mental state had not come under the observation of any surgeon; and suppose that he had been placed on his trial at the Central Criminal Court, and that the prosecution had been conducted by an Old Bailey barrister, after the manner of Serjeant Ballantine; and suppose that all the available evidence of his previous mental state had been that of two or three of his associates, if his counsel had thought it prudent to offer it,—would the trial then have been stopped, or would it have gone on to a conviction? Under such circumstances, it is most probable that, after the judge in his summing up had discoursed gravely to the jury on the danger to society that would ensue if it were to go abroad that drunkenness was an excuse for crime, and had evolved from his moral consciousness some remarkable dictum respecting what was insanity and what was not insanity, the man would have been convicted, and in due time executed.

Whosoever thinks that we are putting the matter too strongly should read Mr. Baron Martin's summing up in cases in which insanity has been alleged, and take note of the different categories of insanity with which he has made himself acquainted. He will not find much variety in the charges of Mr. Baron Martin on such occasions; he will, indeed, discover a great sameness in them, so that his mind will not be greatly exercised in getting an exhaustive knowledge of insanity from a judicial point of view. There is the man who has no more mind than the brutes. Then there is the singular man (we have not been able to make out whether he is the same as the former man or not) "who had lost his mind altogether, and had nothing but instinct left, who would destroy his fellow-creatures as a tiger would destroy his prey, by instinct only;" and lastly, there is the man who laboured under a delusion, and did something of which he did not know the real character, something of the effect and consequences of which he was ignorant. This is the gospel of insanity according to Mr. Baron Martin, and one cannot wonder that a jury, so authoritatively instructed, should feel themselves constrained to convict an insane person. Mr. Baron Martin may be legally right, but if he be,

it is certain that good law is not justice ; on the contrary, its administration is distinctly the administration of injustice.

The next trial to which we shall refer is one which excited much public interest—that of the Rev. John Selby Watson for the murder of his wife Anne Watson, at Stockwell, in October last. The trial commenced at the Old Bailey on January 10th, before Mr. Justice Byles, and lasted three days.

Evidence was first given explanatory of the house in which the prisoner and his wife resided. Entering by the front door the drawing-room was on the left and the dining-room on the right, both being on the ground floor. On the first floor there was a bedroom occupied by the prisoner, over the drawing-room, with a dressing-room behind ; and across a passage, and over the dining-room, was the library, with a small dressing-room behind.

The first material witness called for the prosecution was Eleanor Mary Pyne. She said,—I live at New-cross, and am 20 years of age. I was in the service of the prisoner. I had been there not quite three years. A sister of mine was also in his service, but left at Christmas, 1870. From that time, when my master ceased to be head master of the Grammar School, I was their only servant. He and my mistress at first used to occupy the same bedroom, which was on the first floor front, but during the hot weather last year they slept apart, she occupying a room behind the library on the first floor. She used to dress in Mr. Watson's bedroom. I used to attend to all the rooms on that floor except that of Mrs. Watson, who attended to it herself. I had been only once or twice in it. On Sunday morning, the 8th of October, my master and mistress went out about church time, but rather earlier than usual, and returned about a quarter to 2, which was their dinner hour. They took dinner in the dining-room on the ground floor. I attended them. They took no wine during dinner, but they had some afterwards, and some dessert in the library upstairs. I left them there between 2 and 3, and up to that time nothing in their demeanour had attracted my attention. They usually lived on very good terms. I went out in the afternoon about 4 o'clock, and returned about 9. Mr. Watson let me in. I had previously prepared the tea in the dining-room. The usual hour for taking tea was a quarter to 6. On letting me in he said my mistress had gone out of town, and would not be home until the next day. I went into the dining-room, and he came there and said, " We have not taken tea." I asked if he would take supper, and he said he would take a little bread and cheese. He went upstairs and I afterwards got the supper. I then went into the front bedroom to do what was necessary to it. There was nothing unusual about it. Mr. Watson had his supper in the dining-room. As I was going to bed he came out of the library and pointed to what he said was a stain of port wine on the floor. He

said, "I have told you that thinking you might wonder what it was." I did not see any stain then, but I did afterwards. It was under the carpet at the entrance to the room. He pointed to the small bedroom at the back of the library, and said my mistress had locked it and I might go to bed. I saw no key in the door. There was usually a key outside. I had not expected my mistress to go out of town. On the following morning I prepared my master's breakfast in the dining-room. On that occasion he said my mistress would not be at home for two or three days. I had just told him that if she would not be at home before dark I should want some candles. He afterwards went out and had his meals as usual that day. On the Tuesday he also went out, saying he would not be home that night. That was after dinner. He had been out before dinner. He went out two or three times after that. I went out in the afternoon to try and get some one to sleep with me, but I could not, and he said I should have to sleep alone. He did not go out that night. I sat up till 11, when Mr. Watson called me from the library floor, and said, "If you should find anything wrong with me in the morning send for Dr. Rugg." I asked if he was ill. He said, "I may require him in the morning." No further conversation passed, and I went to bed. Next morning I got up about a quarter to 7. I knocked at his room door at 8 o'clock. He answered me, saying he was dressing. He came down stairs about half-past 8, and went out before breakfast, but returned in about ten minutes. After breakfast he went out again, about half-past 10, and returned about 11. He then went into the library, and called me between 11 and 12. I saw him in the hall, and he told me if he should be ill before dinner I was to go for a doctor. He then went upstairs. About half an hour or more after he had gone up I heard groaning, and went upstairs to his bedroom. He was then in bed and undressed. I spoke to him, but he was unconscious, and did not know me. I went for the doctor at once. There were then three papers on a stand in the bedroom and a glass on a table by the bedside. I took up one of the papers and read it before I went for the doctor. It was in my master's writing, and was addressed, "For the servant, Ellen Pyne, exclusive of her wages." It said, "Let no suspicion fall upon the servant, who I believe to be a good girl." It was sealed, and a £5 note was enclosed in it. I went and fetched Dr. Rugg. He had been at the house before, attending my sister. He went to my master's bedroom and afterwards went out and brought a policeman. I had asked my master if he felt cold, and whether I should put something more on his bed. When the police came I went into the library and pointed out some splashes on the window, which I supposed to be wine. I had first noticed them on the Tuesday. Afterwards, but not that day, I saw the dead body of my mistress. One quarter's wages would be due to me in a month from that time. I did not know my master had any pistols. I saw a paper in Latin on the Tuesday on the library table. It was in my master's handwriting.

That paper was now put in evidence, and was as follows:—"Felix in omnibus fere rebus præterquam quod ad sexum attinet fœmineum. Sæpe olim amanti amare semper nocuit."

Being cross-examined by Mr. Serjeant Parry, witness said—I asked my master if he was cold; he said he was, and I put something on the bed. That was about an hour after I saw him in an unconscious state. I think I was the first person who saw some pistols in a drawer in his dressing-room. The drawer was unlocked. I had constant access to the room. I never did open the drawer before, but if I had been curious I might. I found the paper in Latin on the library table. The corner of it was under a book and it was open. I noticed the paper and looked at it on the Tuesday morning. I had not seen it before. Two young gentlemen, pupils of Mr. Watson, once boarded in the house. They left just before he retired from the Grammar School. Up to that time Mr. and Mrs. Watson kept two servants. My master always behaved with great kindness to me. I never noticed any angry feeling between him and his wife. They appeared to live happily and comfortably together. My mistress had her own way. They kept no company. He was rather a reserved man. They used to sit together after meals in the library, and there Mr. Watson was always either writing or reading. He was industrious and hardworking, and used to sit up till about 11 o'clock. Everything was very punctual in the house. They went to church on Sunday, the 8th of October, but not their usual church. He was sometimes absent on a Sunday doing duty. They ordinarily attended church once on Sunday.

Dr. George Philip Rugg, practising in Stockwell, said he had known Mr. Watson for years as head master of the Grammar School. He had never attended him professionally. On Wednesday, the 11th of October, he was called to the house by the servant Pyne, about half-past 11, and found him in bed. He was unconscious, breathing heavily, and with difficulty, with a cold, clammy perspiration on him, and a weak, soft, compressible, and intermittent pulse. He appeared at first to be labouring under an attack of epilepsy, and he remained in that unconscious state about a quarter of an hour or 20 minutes. The servant Pyne put a letter into witness's hand. It was sealed, addressed "For the Surgeon," and was in these words:—

"I have killed my wife in a fit of rage to which she provoked me. Often, often, has she provoked me before, but I never lost restraint over myself with her till the present occasion, when I allowed fury to carry me away. Her body will be found in the room adjoining the library, the key of which I leave with this paper. I trust she will be buried with the attention due to a lady of good birth. She is an Irishwoman; her name is Anne."

Enclosed, witness found a key. The next letter, called "A Statement to such as may care to read it," those words being written on the envelope, was as follows:—

“I know not whose business it will be to look to property left, as my little possessions will be my books and furniture. My only brother was living when I last heard of him, five or six years ago, in America, at 12, Grand-street, Williamsburgh, and a niece with him. He is my heir if he is still alive. I know not whether I have any surviving relation. One quarter’s wages will soon be due to my servant, and I should wish the sum to be more than doubled to her on account of the trouble she will have at the present time, and the patience with which she has borne other troubles. In my purse will be found £5. 18s. I leave a number of letters, many of them very old, with which I hope that those who handle them will deal tenderly. The books are a very useful collection for a literary man. The two thick quarto MS. books marked P. and Q., being with others on the sofa, might be sent to the British Museum, or might possibly find some purchaser among literary men, for whom they contain many valuable notes and hints. Among the other MS. is a complete translation of *Valerius Flaccus* in verse, which I think deserves to be published. Messrs. Longman and Co. also have in their hands for inspection four volumes of manuscript, containing a complete history of the Popes from the foundation of the Papal power to the Reformation. There is also ready for the press a tale entitled *Hercules*. I leave, too, in the book-case, several books of extracts and observations marked with the letters of the alphabet, the oldest being, I believe, that marked ‘M.’ and the most recent that marked ‘P.’ There is an annotated copy of the *Life of Porson*, with a few addenda, and a copy of the *Life of Warburton*, with a few annotations and a book of addenda. There will be found in loose sheets in the press at the side of the fireplace in the library a complete translation of Béranger’s songs, with the exception of *Mes Derniers Chansons*. Some of these have been printed. The house is to be vacated at the half quarter. For the rent to Michaelmas I have sent a check to-day. There will be some small bills, but when all claims are satisfied there will be a considerable sum left, besides what will arise from sale of books and furniture. I have made my way in the world, so far as it has been made, by my own efforts. My great fault has been too much self-dependence and too little regard. Whatever I have done I have endeavoured to do to the best of my ability, and have been fortunate, I may say generally, with one great exception. In the papers lying about and elsewhere will be found some MSS. which have been used and others intended for literary purposes.”

Witness went on to say he obtained the key of Mrs. Watson’s room, which was left in one of the papers, and went in. It was the bedroom at the back of the library. That was on the same day. He found her dead, and the body huddled up in a corner of the room, covered over with blankets. There were several wounds on the scalp, one of which had fractured the skull. Her dress was saturated with blood,



and the body was stiff. There was much blood on the floor. She must have been dead a day at least. The fracture of the skull must have been the cause of death. Next day he was shown a horse-pistol; the wound might have been caused by it. He first saw six wounds on the skull, and afterwards eight, one being a large fissure extending from the top of the skull to the base. There were smaller wounds and abrasions about the hands and arms. After that witness returned into Mr. Watson's room, and found there a glass on a chair by his bed side, and a phial, about half full, on the drawers. There were a few drops in the glass of the same fluid as that in the phial, which he found to be prussic acid. Witness went out to a chemist, and on returning with him found Mr. Watson recovering consciousness, but talking incoherently. Witness told him he knew he had taken prussic acid. He made no reply at that time. He afterwards told witness privately where he bought it, but said he did not wish to get the chemist into trouble. Witness sent for a policeman, and told Mr. Watson what he had done. He threw up his arms and made some exclamation. Witness left him in charge of the policeman, but returned afterwards and found he was not in a fit state to be removed. The flooring of the library and the woodwork round the window were slightly bespattered with blood. He told witness he had taken prussic acid the night before, but not a sufficient dose. Witness and Mr. Pope, the divisional police surgeon, agreed afterwards that he was fit to be removed, and he got up and dressed himself about 4 o'clock. He asked for a particular pair of boots, and directed witness's attention to an oyster shell in his dressing-room on a chest of drawers, saying, "A curious thing that; I picked it up" Witness said it was rather remarkable, from a calcareous sort of incrustation upon it resembling coral. Mr. Watson brushed his hair very carefully, and was in other respects particular how he dressed himself. His manner seemed frivolous considering the position in which he was placed. Witness suggested he should have a solicitor, and mentioned Mr. Fraser, an old pupil of his. He replied he did not think it was of any use. He afterwards consented. When he was leaving the house he asked the police to deal gently with him, and to get the matter over as soon as possible.

Cross-examined by Mr. Serjeant Parry, witness said he had long known the prisoner as the master of the Grammar School, as a person of great classical attainments, and as having the character of a humane man. He was latterly reserved in manner and self-absorbed. Witness had no doubt he had taken the prussic acid to commit suicide, and had taken a dose which might have proved fatal. His skin was clammy, and had all the appearances of a man who had taken prussic acid. He told witness he had taken a dose of prussic acid the previous evening, but had not taken enough, and that he had taken a fresh dose that morning. Witness asked him when at the police-station if there was any insanity in his family. He said his brother was quite sane, but

he could not say so much for his father. While dressing he wanted to shave himself, but the policeman, who was in the room, would not allow him. Witness asked him at the station if he had anything on his mind. He said he had sufficient to live upon at that time, but that his means were becoming exhausted; that in consequence of losing the Grammar School he had begun to despond, and that he had been promised another appointment, but it had fallen to the ground. His age is about 67 or 68. Most of the eight wounds on the deceased appeared to have been inflicted with extreme and unusual violence, almost the ferocity of violence. Insanity was a disease and was always treated as such in witness's profession. The patient in such a case was to be prevented doing harm to himself or others. Melancholia was a disease well understood in the profession. Sudden shock had a tendency to produce it, and a patient suffering from it was liable to sudden bursts of paroxysms of madness. During such a paroxysm if he committed a violent act he would not in witness's judgment be able to understand the act while he was doing it. After the fit was over it was consonant with witness's experience that the patient would resume his normal state, just as in a case of epilepsy. Homicidal mania and suicidal mania were well recognized in the profession. The fact of attempting to commit suicide would be one witness would take into consideration in forming a judgment whether a patient was a homicidal maniac or no. He had since seen the prisoner at Horsemonger-lane Gaol and had found him suffering great despondency. On that occasion he said he wished he had consulted witness before. There were many cases on record where persons feeling a fit of homicidal mania coming on had sought admission to a lunatic asylum. Witness ascertained from the prisoner that he had purchased prussic acid 12 months before, that he had always been of a despondent turn, and he had kept it by him ever since. Mr. Serjeant Parry was carrying this line of cross-examination to greater length, when

Mr. Justice Byles, interposing, said he must try the case according to what had been considered for many years the general rules. He afterwards added that, in his opinion, the question of homicidal mania had nothing to do with the case. He was perfectly conversant with the French law on the subject. He should leave to the jury the question whether at the time the prisoner committed the act he knew what he was doing and that he was doing wrong.

Witness, in further cross-examination, said in his judgment the prisoner was labouring under a great state of mental depression before he committed the act. When he saw him he was suffering from simple melancholia, with a tendency to maniacal excitement. On the day he was taken into custody he was still suffering from those causes. He believed now he was not in a sound state of mind, and that the loss of his appointment was the principal cause of it.

By Mr. Denman—He was a person of somewhat morose demeanour,

but there was nothing about him to show he did not understand questions or what was going on about him. His manner, however, was altogether very peculiar, and he did not answer a question directly. His general manner altogether impressed witness that he was suffering from insanity.

Mr. Pope, surgeon to the W Division of Police, spoke to seeing the prisoner before he was taken to the police-station. He asked the prisoner how he was, and he replied better than he wished to be. Witness had that (yesterday) morning seen a deal box in court, and believed it was capable of holding the dead body, if it had been compressed into it. A coat the prisoner wore on the day of the murder being asked for, the prisoner said if it was for the purpose of an exhibition witness should not have it. Witness on that occasion saw nothing about him to show he was a person of unsound mind, nor when he was at the police-station.

Being cross-examined witness said the coat wanted was hanging on a peg in his dressing-room at the time.

Dr. Thomas Henry Waterworth, surgeon to Horsemonger-lane Gaol, said the prisoner was taken there on the 12th of October, and he saw him on the following day, and almost daily afterwards, until about the 14th of November. He conversed with him from time to time, and endeavoured to form a judgment as to the condition of his mind. There was nothing to indicate any insanity about him. He was perfectly sound in mind. Witness had not seen him since he left the gaol.

Being cross-examined by Mr. Serjeant Parry, witness said Mr. Watson was depressed in mind and weak in body when he first came to the prison, and witness gave him some slight stimulants. He was rather averse to answering questions. His manner was somewhat, he might say very, reserved. He recovered after a time, but was still weak and depressed when he left. He complained of sleepless nights, and witness gave him morphia, to be taken in small doses. He afterwards secreted some draughts of morphia, but that was discovered. Restlessness at night was symptomatic of a disturbed brain. That lasted two or three weeks in the prisoner's case. He took morphia about ten days. The sleeplessness had not entirely gone when he left the prison. Witness attributed to the state of his mind the deed he had committed. That was his impression.

Replying to Mr. Denman, witness still said he saw nothing indicating insanity in the prisoner. The slight stimulant he gave him was ammonia, which was frequently given to patients suffering from depression, regardless of their state of mind. He did not mean by a disturbed brain a diseased brain.

Dr. Edgar Sheppard, medical superintendent of the Colney Hatch Lunatic Asylum, which office he had held for more than 10 years, deposed that he had repeatedly seen the prisoner in Newgate,

and conversed with him, and he was of opinion he was of unsound mind.

By Mr. Serjeant Parry—He was requested by the Government to examine him, with Dr. Begley, the resident superintendent at Hanwell. Replying to questions by the Serjeant, witness said it would be right to say insanity was a disease of the brain, and was curable like any other malady. There was a recognised form of insanity called melancholia, which was sometimes brought about by some sudden calamity, such as the loss of fortune or *status*. A person so suffering was liable to sudden bursts of madness. Under certain forms of intense melancholia the reason and judgment were gone. A person labouring under melancholia was more liable to sudden bursts of passion than a rational man. Such a person might be liable to an outburst of passion and be quite himself again afterwards. Suicide was a very common accompaniment of melancholia; homicide also, but that was less common. A repeated attempt at suicide in such a person would be an element in considering whether he was insane. The forms of suicide committed by the insane were intensely clever and crafty, and contained, as a rule, no element of clumsiness about them. For instance, no insane person attempting to commit suicide would, in his judgment, tell another that he might be ill at a certain time the following day.

Mr. Serjeant Parry reminded the witness that he (the Serjeant) had carefully avoided, in his cross-examination of him, referring to the particulars of the case under consideration, and the learned Judge told the witness to attend to the questions.

Cross-examination continued—Madmen, both before and after the commission of crime, had manifested considerable craft and cunning. Absence of remorse was consistent with sanity and also with insanity.

By Mr. Denman—He saw in the prisoner signs of depression which were consistent with melancholia and also with perfect soundness of mind. In the case of a person who had committed a crime under the influence of melancholia he should expect to find other symptoms of insanity. During an attack of intense melancholia the reasoning powers were altogether gone. He should expect to find some other indication of insanity besides an act of violence. He did not think there was any case on record of an impulsive act of insanity involving homicide in a person who had not given any evidence of insanity before. He did not believe a great act of that kind could be committed without very manifest symptoms beforehand, and he thought the patient might conduct himself rationally within an hour.

Mr. Denman—Would it be likely that an insane person, having committed an act of violence, would give notice that he was going to commit suicide, and that he should require a doctor soon?

Witness said he could conceive nothing more improbable. It was

entirely at variance with his experience that such a person should give previous notice of what he was about to do.\*

Dr. Begley, medical superintendent at the Hanwell Lunatic Asylum, said he had seen the prisoner on four different occasions in Newgate, and conversed freely with him. On the first and second interviews the prisoner was very coherent, but somewhat reticent and reserved. On the third he was much less so, and on the fourth he was talkative, and went on from subject to subject, and showed a degree of levity inconsistent with the position he was in, and which could only be accounted for by some mental infirmity. The subject of conversation generally was classical literature. He was at other times subject to great depression and dejection. That would be consistent with sanity in a person who had sustained a great infliction, or had committed a great crime.

By Mr. Serjeant Parry—Witness had been at Hanwell 30 years,

\* We have been favoured with a copy of the following letter, which Dr. Begley addressed to the Solicitor of the Treasury after the trial:—

Middlesex Lunatic Asylum, Hanwell, W., January 22nd, 1872.

SIR,—It was asserted at the trial of the Revd. Mr. Watson by more than one witness, and commented upon approvingly by Mr. Denman, that there is not a single instance of a person *really* intending the commission of suicide mentioning such intention to others. I know of many, and shall now crave permission to lay before you briefly the particulars of one which occurred in this institution some years ago. A man of theatrical pursuits, addicted to habits of intemperance, reduced to a state of destitution, upon which insanity supervened, was sent here. The disease assumed alternately the form of mania and melancholia, with disposition to suicide. He stated in confidence one day to a fellow patient that he was determined to make away with himself, and that he should on an early day endeavour to elude the vigilance of the attendants, abstract a knife from the dinner table, and with it cut his throat. The patient to whom this intimation was given informed me of it. I went straightway to the ward, mentioned the matter to the attendants, charging them to be particular in observing the rule which directs them to collect and count the knives before the patients rise from the dinner table. Two or three days after I had thus cautioned the attendants the suicidal patient did contrive to secrete a knife from the dinner table, went with it to one of the water closets of the ward, cut his throat, dividing important vessels, and died instantaneously. The facts were stated to the committee after an inquest had been held; the patient who gave me the information was examined, and most coherently confirmed the statement; the attendant having admitted that I cautioned him to be on his guard, was dismissed. For the accuracy of this statement I refer you to a gentleman holding a high official post, and well known in your department. I mentioned this case in court to the solicitor for the defence, who said there he could not then introduce it with the brief, nor communicate it, verbally or otherwise, to Mr Sergeant Parry, and having seen by the "Medical Gazette" of last Saturday that the unfortunate man is charged with having feigned to commit suicide, I think it proper thus to write to you.

I am, Sir, your obedient servant,

W. C. BEGLEY.

A. Stephenson, Esq., Treasury.

[The name of the gentleman to whom Dr. Begley refers is given in the original letter.]

and was at one time assistant to Dr. Conolly. Neither on the first nor second occasion did he form an opinion that the prisoner was a person of unsound mind; on the third he wavered, and on the fourth he made up his mind, or nearly so, that he was not of sound mind. His final opinion was that he was of unsound mind.

Mr. John Rowland Gibson, surgeon to the prison of Newgate, said the prisoner was brought there on the 14th of November, and had since been under his charge. Witness had been nearly 16 years the surgeon to the gaol. From the time he first saw Mr. Watson he had paid particular attention to his mind. He had seen him daily, and sometimes more frequently, and conversed with him frequently. He saw him with Dr. Begley at each of the four interviews. He had always found him rational and remarkably self-possessed. He had not observed any incoherence or inconsistency in his conversation. Sometimes he was more depressed than others, and at times his conversation almost approached cheerfulness. He did not medically treat him. The depression the prisoner suffered appeared to be nothing more than might be expected in a person in such a position, and was consistent with the general experience of witness in Newgate.

Mr. Serjeant Parry then addressed the jury for the defence. He commented first upon the nature of the crime, its atrocity, and its ghastly details, at which he said many who had heard the evidence might have shuddered. A crime of such a kind naturally excited in the imagination of men a feeling of repulsion towards the perpetrator, but he was sure if such a feeling had existed at all in any of the minds of the jury, it must have long ago passed away. He bore witness, in passing, to the temperate, calm, and judicial address of Mr. Denman in opening the case of the Crown, which he said was well calculated to allay the feeling of antipathy that existed as to the nature of the crime itself. He submitted that the more merciful and reasonable conclusion was that, at the time of its commission, the mind of the unhappy gentleman at the bar was in a state more calculated to awaken the feelings of sympathy than antipathy. He was the last man likely to have perpetrated such a crime wilfully and knowingly. He was a self-made man, and had really been the architect of such little fortune or position as he had acquired. He was the son of humble parents in Scotland, and was educated first by his grandfather, and afterwards at the University of Dublin. He had been all his life devoted to intellectual pursuits, and for 25 or 30 years a teacher—the most arduous work, probably, in which the mind of man could be engaged; while there was scarcely any branch of literature in which he had not occupied himself at one time or other. He seemed, also, to have been engaged in those pursuits up to the very moment of the crime of which his own wife was the victim. The learned counsel mentioned incidentally that her maiden name was Anne Armstrong, and the circumstances which led to their marriage. That being the relation of the parties, he asked whether

the prisoner was responsible before the law for the act he had committed? *Primâ facie* he was, and the burden of proof to the contrary lay upon him; but the question for the jury was whether at the time he committed the crime he was relieved from the consequences of it, so far as the extreme punishment of the law was concerned, though liable to be confined for life under circumstances which would not admit of his giving way again to the maniacal passion. Did he at the time the crime was committed know the difference between right and wrong, and did he know that he was doing wrong? That was substantially the question they had to try. If he was of unsound mind at that time, then he did not and could not know the guilt of the act he had perpetrated. It was impossible that a lunatic could understand the character of an act when his mind was perverted and overthrown. That was a law of humanity as well as a rule of legislation. Insanity was as much a disease as typhus, paralysis, or epilepsy, and was so known not only to the medical world, but to all mankind. It was not a question of law, but of fact, and of fact only. The law of England had never attempted to define what insanity was. If he was right in that, there was only one direct path along which judge, counsel, and jury could safely travel in order to arrive at a proper conclusion. On the part of the prisoner he would prove to demonstration the fact that he was of an unsound state of mind when he committed that terrible crime. He was a man of learning and high character, and of laborious and studious habits, and up to the time of this occurrence he had led an honourable and blameless life, and achieved a reputation of which anyone might have been justly proud. What, he asked, would the jury think of the act itself? The prisoner was spoken of generally as a kind and humane person, and he had lived on most affectionate terms with his wife. The servant girl, Ellen Pyne, who had given her evidence with a degree of intelligence and propriety much to her credit, had never heard, during the three years in which she had lived with them, a word of anger or a single quarrel between them. A fact from such a disinterested source spoke volumes. After all, the insanity of a person could only be decided on an impartial consideration of the facts. The deed was inconsistent with the whole of the former life of the prisoner, as a man or a husband, and in opposition to all that might have been expected from such a person. The only hypothesis on which it could be accounted for was that at the time of its commission he was insane. The act itself was extraordinary, and not to be explained by any ordinary reasoning. It was perfectly motiveless, but the law of England, by which a criminal such as William Palmer was tried and convicted in that same dock of systematic poisoning for the sake of greed, made no distinction between the two kinds of murder. There was an entire absence of preparation for such a deed, and nothing to show that the crime was even thought of before the moment of its commission. Did not the deed itself prove that it was the result of reason overthrown, and of the ferocity and violence of a madman? The unnecessary

violence practised was also important as a proof, as he suggested, that the prisoner was insane at the time. He was, in fact, labouring under that particular kind of insanity called melancholia, producing a profound depression of the whole mind, a diversion of the brain from its ordinary channels, rendering the reason incapable of judging between right and wrong, and liable to outbursts of maniacal fury. A patient suffering from such a disease might be comparatively sane before the occurrence, and might also within a short time afterwards resume his ordinary appearance. Method and design very frequently attended homicidal or suicidal mania. He commented, as further instances of the prisoner's insanity, upon his bungling efforts to conceal the crime and secrete the body, while at the same time he hung up his blood-stained clothes in the usual place. His conversation with Dr. Rugg was very remarkable, as showing his strange indifference to the circumstances in which he was placed. When he was in custody for murder, all his anxiety was to make a presentable appearance. It would appear the thought of suicide had entered his mind, and it was an extraordinary fact that Mrs. Watson was with him when he purchased the prussic acid a year ago. Were suicidal intentions then lurking in his mind and influencing his actions? Could there be a doubt after the crime that he intended to commit suicide? The precise directions he left behind him in writing all tended to confirm the belief that he did. Again, there was a second attempt, while in Horsemonger-lane Gaol, by accumulating the doses of morphia that had been meted out to him. There were also the exhaustion and weariness of the brain, always looking at the present with the eye of sorrow and to the future with absolute despair, having regard to the manner in which he had been treated in the matter of the school. All those considerations were pressing on his mind and wearing him down. It was not a question at his advanced age of reputation, but of the means of living. He wondered whether the prisoner and his wife at that time, with destitution impending, could have contemplated the unchristian act of suicide. After his dismissal a witness noticed in him his tottering gait, his feeble voice, and shrunk body. The fact was he had been suddenly crushed by a heavy blow. At such a time mothers and fathers had slain their children, and husbands their wives. Such calamities were among the causes of insanity. The hair of men had turned white under them. The prisoner was about to be driven out of house and home, with, perhaps, the prospect of a workhouse in a very short time opening its doors to receive him. If the demon of depression was haunting him, and if in that state of mind he conceived the idea of murdering his wife, that was the history of insanity. Men resisted, but at last the mind was overthrown and they could resist no longer. There were cases where men and women had sought the protection of their friends to restrain them from making away with themselves or others. The best known instance that occurred to him was that of the late Charles Lamb and his sister. She, who was one of the most



virtuous and excellent of women, adorning our literature with writings that would never die, had been known to walk with her brother, when they were both very poor, by her side towards an asylum, lest in her paroxysms of madness she might be tempted to injure someone near and dear to her. That, in truth, was the history and march of insanity of the kind under which the prisoner laboured. Again, Dr. Begley, who for long years had been at the head of the Hanwell Lunatic Asylum, and who had been the assistant and pupil of the late Dr. Conolly, one of the pioneers in the science of treating mental derangement, had declared on his oath that he believed him to be of unsound mind, and yet Dr. Begley had been called as a witness for the Crown. He bade the jury, in conclusion, remember that if they found the prisoner insane he would never again have an opportunity of committing such an act. Even if cured he would never be allowed to rejoin the world. When, therefore, two alternatives were before them—the scaffold or the asylum—he could not doubt which they would choose.

Mr. William Joseph Fraser, solicitor for the defence, was called as a witness, and produced certificates proving that the prisoner was baptised in Crayford Church, on the 30th of December, 1804, and married to the deceased lady at St. Mark's Church, Dublin, in January, 1845. Mr. Watson, he said, was a gold medallist of the University of Dublin. He also produced various letters, written to the deceased by the prisoner before their marriage, and found in a drawer in her bedroom. He spoke in these (which were read at length by Mr. Read, the Deputy Clerk of Arraignment) of his acquaintance with her when he was at the University, of the high esteem and respect with which he had always regarded her, and of her being a lady of great excellence. He also went fully and candidly into his position, means, and prospects. The letters were couched in very respectful terms, and many of them appeared to have been written in answer to some he had received from her. The witness also produced a list of the prisoner's published works, and those in manuscript, to the number of about 50 in all.

In answer to Mr. Denman, he said he was a pupil of the prisoner at the Proprietary Grammar School at Stockwell, from Easter, 1856, to July, 1861. Since then he had occasionally corresponded with him. He visited his house in January, 1871, on business connected with the school, of which he was one of the proprietors. He found all the books and documents in the places mentioned by the prisoner in the paper addressed "to such as may care to read it."

The Rev. Folliott Baugh, Rector of Chelsfield, Kent, examined by Mr. Thesiger, said, in September last, when his curate was absent for a time, the prisoner was recommended to him, and he engaged him to assist him on the third of that month. He seemed at first rather nervous, and during the prayers he appeared so weak, dreary, and listless that witness, although unwell, performed the whole of the Communion service himself. After church he and witness walked to the rectory—a distance of a quarter of a mile—to lunch. The prisoner

appeared to be labouring under extreme depression of mind or body, or both, which showed itself in gloomy silence, continuing throughout the day, and a total absence of interest in all that was going on around him. Witness and his wife tried to get him to talk, but he merely replied in monosyllables, and did not originate a single observation. It seemed, in fact, to be an effort for him to speak. In consequence of his condition, witness himself preached at the evening service. The prisoner read the prayers in the same weak tone of voice. Afterwards he returned to the rectory to dine, but he exhibited no change in his manner, which continued to be dejected and depressed in the highest degree. Witness, contrary to his usual practice, ordered his carriage out, and drove the prisoner to the railway station in the evening. He did not know anything of his antecedents. He attributed his condition at the time to natural decay, consequent upon old age.

By Mr. Poland—He should have thought the prisoner was 75 years of age. There was nothing irrational in his manner, or his answers, such as they were.

Mrs. Baugh, the wife of the last witness, gave confirmatory evidence. She said that the prisoner scarcely raised his head or opened his eyes during the whole day. He suggested at evening service that she should read the lessons, and he appeared to be in earnest. She thought by his manner that he was completely crushed by some great sorrow. His conduct made a considerable impression upon her.

Being cross-examined, she said the prisoner did not take an interest in anything, but he was neither morose nor sulky. She tried to converse with him on many topics, but without success. She believed that he had a sermon to preach if necessary.

Mr. Rogers, proprietor of the Beulah Laundry, Stockwell, spoke to having known the prisoner by sight and reputation for 20 years. On the 7th of October last, the day preceding the murder, he met him in the Clapham road. His eyes were glaring, and as he approached witness he threw his umbrella under his left arm, made a deep gurgling noise in his throat, and clinching his fist, made three or four gestures with his right arm. After they passed witness turned round, and noticed that he was still acting in the same way. A few months previously, on meeting him, he saw that his eyes were cast upwards, and his lips were moving, as if in prayer. He had a very vacant look, and witness thought that his mind was going.

The Rev. Joseph Wallis, vicar of St. Andrew's, Stockwell, said that for the last three years Mr. Watson and his wife had attended his church. He had known him more than ten years, and had seen him frequently. No man could have a higher character for kindness and humanity. On the 3rd of November last he visited him, at his request, at Horse-monger-lane Gaol, and was with him about three-quarters of an hour. He had quite forgotten that he had sent for witness. His conversation and intelligence were very unlike what witness had previously observed. He told witness that, if he had opened his mind before to

him, he, perhaps, might have taken a different course. He passed rapidly during the interview from one subject to another, and they had no apparent connexion. That had not been at all his habit. He spoke about what he called "That horrible inquest," and complained that they would not let him shave there. There was about his manner a strange absence of remorse for what he had done. He was full of anxiety about his house, saying he would have no place to go back to, and he appeared especially concerned about his library. Witness mentioned a Latin letter he (the prisoner) had written, which the Bishop of Winchester had commended, and the prisoner said, "Here's a man with whose Latin the Bishop of Winchester has been pleased, and they have shut him up in a place like this." He talked about writing an essay on the union of Church and State, but complained that he could not have the use of his books.

Being cross examined by Mr. Denman, witness said he had known Mr. Watson in many ways for more than ten years. On two or three occasions he had asked the aid of witness in procuring an appointment for him. He appeared depressed about the loss of the school. Witness visited him thrice at Horsemonger-lane Gaol; and on another of those occasions he was concerned lest his library and furniture should be sold. During one part of the conversation at the first interview he asked where Broadmoor was. That is a place where criminal lunatics are confined.

Mr. Robert Coleman Hall, a tea-dealer residing at Brixton, said that in January, 1871, he had occasion to call on Mr. Watson respecting his (witness's) son, who was at the school. Witness had known him ten years previously. He appeared on that occasion to be depressed and "lost." He talked about the loss of the school, and said he had not been well treated.

Henry Maudsley, M.D., Professor of Medical Jurisprudence at University College, said he had paid great attention to insanity, and had written a work on the Physiology and Pathology of Mind. He had lectured on it at St. Mary's Hospital, and had been resident physician at the Royal Lunatic Asylum at Manchester. He visited Mr. Watson on the 27th November last, in order to ascertain the state of his mind, and was with him for an hour. At the end of the interview he was of opinion that he was not of sound mind. That was the conclusion at which he arrived. He believed from the symptoms he had been suffering from an attack of melancholia. Mr. Watson is 67 or 68 years of age. An attack of melancholia at such an age would have greater effect than upon a younger person. He had heard Dr. Sheppard examined on Thursday, and agreed in the main with his description of melancholia. A person suffering from it was liable to outbursts of mad violence. While in that state a patient's reason was in abeyance, and he was unconscious, or nearly so, of what he was doing. His mind was decidedly deranged. After such an attack the mind sometimes regained comparatively its tone, the time of regaining

it varying ; and before the attack itself the patient might appear calm and comparatively rational. His conversation in such a case would be coherent and rational. He had known patients who had shown violence under the disease. It was accompanied by dangerous propensities—by suicidal violence much more frequently than homicidal violence. That would form a very strong evidence that such a patient was of unsound mind. On a person labouring under melancholia a slight provocation would have a very powerful influence. The disease usually came on gradually. Continual depression after some shock or loss would be an element with witness that the mind was becoming unsound, but that would vary much in different temperaments. Old age especially would tend to develop depression into melancholia. After a paroxysm of violence a patient under melancholia might appear sane and be so. It was a disease which yielded to medical treatment; but success depended very much on the age of the patient. Callousness was very common after any act of violence done in a state of insanity. During witness's interview with the prisoner he seemed callous and indifferent. In judging of sanity or insanity witness would take into consideration the act itself, the circumstances under which it was committed, together with the patient's previous life. Suicide with an insane person might be entirely impulsive as well as crafty. Persons suffering from melancholia were in some cases aware of a tendency in them to suicide. A patient under witness's own care repeatedly told him he would commit suicide if he was not watched, and eventually he did commit it. The instance of Charles Lamb and his sister was well known in medical books. It was homicidal in her case ; she killed her mother. Method or design was common in insane persons, as was also the concealment or denial of an act while committed in a fit of insanity. Witness was much impressed with the indifference the prisoner showed in regard to the crime and the position in which he was placed.

By Mr. Denman—Melancholia was a form of madness distinct from the ordinary melancholy from which a sane person would suffer. It was a diseased state of mind which was a morbid aggravation of ordinary melancholy. Simple depression to a great extent might be melancholia. The characteristic of melancholia in its earlier stage was extreme depression. A person who had suffered a great loss might be greatly depressed, and that might be a symptom of melancholia. In all the cases that had come under his personal experience, he had always found some evidences of insanity before a crime. There were cases recorded by the highest authorities in which no such symptoms were said to have been observed. A homicidal impulse was but a symptom of the disease. He adopted the term impulsive insanity as a subdivision of the general term, affective insanity.

The Judge, remarking upon the term "affective," which the witness had used, said he thought they were rather getting into the clouds.

Witness, in continuation, said in the case of Miss Lamb, it was after

the murder that she was accustomed to walk towards the asylum with her brother. When he saw Mr. Watson in Newgate he appeared perfectly conscious that he had done a wrong act. That was the only occasion on which he saw him, and he was with him for an hour. The depression leading to melancholia usually came on gradually, and went on in intensity until there was some outburst. The cases varied much according to the bodily state of health. Mr. Watson did not appear to realize the terrible character of the act during witness's interview with him. He asked the prisoner about the events which had immediately preceded the crime. He replied that his wife was of a rather hasty temper, and said something angrily to him. He did not say what she had said to him. He said he had struck her on the head with a pistol. It was one, he added, which had belonged to his grandfather, and which he had always had by him. He did not say whether he had fetched it or not when he was provoked. They had had, he said, other quarrels of that kind during their lives.

By Mr. Serjeant Parry—Witness was still of opinion he was of unsound mind when he saw him, and that he must have been so for months.

By the Judge—The proper treatment of melancholia would, in his opinion, be the placing of the patient under proper care, giving him suitable medicines, and employing his mind.

Dr. George Fielding Blandford, a Fellow of the Royal College of Physicians, said he had for a considerable number of years devoted his entire attention to the treatment of insanity, and had written a work on the subject. He was a lecturer on psychology at St. George's Hospital, and visiting physician at Blacklands and Otto-house private lunatic asylums. In company with Dr. Maudsley he examined the prisoner. There was a well-defined form of madness called melancholia. When a person of advanced age became insane, melancholia was generally the form under which he suffered. Any sudden shock, such as loss of position or fortune, might bring it on. It had a very particular tendency towards suicide and homicide, though towards the former more strongly. Persistent attempts at suicide would be an element in considering whether a patient was insane or not. The first symptom of melancholia was an alteration in the patient's appearance, accompanied by both mental and bodily depression. An alteration in the general bearing or mental condition to any extent would, he thought, arouse suspicion, and excite attention in the minds of medical men. Sleeplessness was undoubtedly one of the symptoms of a disturbed brain, in almost all forms of insanity. If that sleeplessness did not yield to morphia, but continued, it would be a very serious condition. It was necessary, in order correctly to judge of a person's insanity, to ascertain the antecedents of himself and his family. The extreme and unnecessary violence exhibited by a certain homicidal act might be an evidence of insanity, as might also be indifference after the act was committed. He saw the prisoner on the 27th of November in New-

gate, and was with him about an hour. He came to the conclusion that he was then of unsound mind. The insanity in this instance was certainly not an affair of days or weeks, but he could not fix any limit of time. Witness had heard the evidence of the Rev. Mr. Baugh and his wife, and Mr. Rogers ; and assuming the appearances existed as described by them, the symptoms were such as he had observed in his own experience in persons suffering from melancholia, and tended to show a certain form of insanity.

Being cross-examined, he said he should not have given a man a certificate of insanity on such statements alone. He only saw the prisoner once, and that was in the presence of Dr. Maudsley, Dr. Rogers, and Mr. Gibson. An attempt at suicide after committing a homicidal act would, he thought, be as great an element in insanity as an attempt without any crime at all. In ordinary cases, of course, it would not be so great. In insane persons committing a crime there was very frequently an absence of remorse. The prisoner's whole manner indicated anything but sorrow for his act. He seemed to regret that the circumstance had occurred, but not to feel any remorse. He appeared indifferent as to the consequences. There was a degree of cheerfulness about his answers which struck witness particularly. The prisoner seemed to know for what purpose they had come. Witness had expressed in his book a strong feeling of dissatisfaction with the law as laid down by the Judges in cases of insanity—viz., as to the crucial test being whether prisoners knew the difference between right and wrong at the time of the crime.

Mr. Denman explained that the question had not been put with a view to damage or prejudice the witness in the eyes of the Court.

Mr. Justice Byles said there was no imputation upon the witness for saying so, as even among the Judges there were some who thought that a better form or test might have been adopted.

Witness, continuing, said that there was in most cases some evidence of derangement prior to the commission of the act. Of 52 cases reported by Dr. Grey there was in each independent evidence of insanity besides the act. The cure for melancholia would be treatment in a quiet place, seclusion from anything worrying or disturbing, good food, regularity of hours, and employment to distract the mind from the morbid thoughts which had entered it. A sudden cessation from regular employment might serve to engender those thoughts.

Dr. Joseph Rogers, of Dean Street, Soho, said he had been in the medical profession for nearly thirty years, and in the course of his practice he had become well acquainted with the treatment of insane persons. He had seen the prisoner five times altogether, and he agreed generally with the evidence of the last witnesses. He believed him to be of unsound mind.

Cross-examined by Mr. Poland—The prisoner was suffering from melancholia. He saw him first at the request of his (the prisoner's) solicitor, on the 11th of November. A person might be in low spirits

with sound health, but melancholia was a disease of the brain. The prisoner seemed to have no delusions. Melancholia was an exaggeration of extreme low spirits. At the first interview he put the prisoner in a good light, and watched his countenance while conversing with him. He had a generally dazed appearance, and when his countenance was at rest he seemed lost. He showed great and singular indifference to the whole affair. As an instance of his irrational conduct he might state that while the conversation was going on he picked a piece of fluff from his trousers, and jumping up gave himself a regular "shake-down." He said he was entitled to some consideration for what he had done in the past. That seemed to witness to be extremely irrational, seeing that he had only been a schoolmaster. There appeared to be some difficulty in his collecting his thoughts. His (witness's) treatment for melancholia would be to make a radical change in the habits of the patient. The prisoner told him that he became angry at something that his wife said to him, and he did the deed. He said he inherited the pistol from his grandfather, but did not say where he took it from at the time of the murder. He talked in a light and frivolous manner. Witness, referring to his attempted suicide, asked him how he, as a Christian minister, dared to seek to throw himself in that way into the presence of God. He replied that there was no prohibition against suicide, only against murder. He did not state what his wife had said to provoke him. He explained that she had irritated him at different times, but that he had always restrained himself; also that he believed the prussic acid was so strong that one dose would have killed him. Witness asked him what he required the box for, to which he replied, shrugging his shoulders, that he did not want it for the purpose which had been assumed. The two Crown physicians on visiting him told him for what purpose they had come. The prisoner made some reference to Broadmoor, saying that the chaplain had told him something about it.

Re-examined—There was not the slightest indication that he was trying to withhold any fact. He still believed him to be of unsound mind.

Mr. Justice Byles then proceeded to sum up. After stating the charge against the prisoner, he said there was one matter which was often the question in such cases, but which did not arise in the present inquiry—viz., whether the prisoner did kill the deceased. This was admitted by the prisoner's counsel. It was also clear that there was no provocation which would reduce the crime from murder to manslaughter. The real and only question in the case to which the counsel had directed their attention was the true question, and it was this—Was the prisoner at the time he committed the act legally responsible for it, and was he a responsible agent? That depended upon a question, on which the counsel also agreed, did he at the time he committed this act know what he was doing? If not, of course he was not criminally responsible. Did he also know that what he was

doing was wrong? He was perfectly aware that doubts on the universal applicability of this rule had been expressed by many eminent persons for whose opinion he had the greatest respect. But if it was to be altered at all, it must be altered by Act of Parliament. It was the rule laid down by the Judges, and was that which guided the House of Lords in a well-known case, when a learned Judge, perhaps the most learned and the most cautious he could remember, Mr. Justice Maule, expressed a doubt upon some parts of the rule not now before the jury, but upon this part of the rule he was of the same opinion as the other Judges. Therefore, the jury must take it from him, and upon the authority of counsel upon both sides. The question then was, did the prisoner know what he was doing? If that was not the law, it must be altered by Act of Parliament. There was not very much encouragement to make an alteration; for one of the learned counsel (Mr. Denman), at any rate, would remember that not long ago when an alteration as to the definition of the crime of murder was attempted, it signally and ignominiously failed. Having stated what the question for their consideration was, he would now proceed to read the evidence. The jury had heard it at great length and also the learned counsel on both sides, a privilege which, after long experience, he valued more and more every day. The evidence was then read over by his Lordship. The jury, he went on to say, were to look at the act itself, and to say whether they believed upon the evidence that the prisoner was or was not in a condition to know what he was doing, and the nature of the act at the time he committed it. Mr. Denman was perfectly right when he said that the burden of proving that lay upon the prisoner. *Primâ facie*, this was a case of murder. They had had a large body of evidence to show that the presumption was rebutted by the circumstances of the case, and that the person who committed it was not of sound mind in this respect, and that he did not know what he was doing and the nature and consequences of his act. There was abundant evidence that after the offence he was conscious that the act was wrong; but the question was, was he conscious that he was wrong not after, but at the time? Something had been said about suicide. He did not think that the attempt to commit suicide was so very material either one way or the other. This might be said certainly. The learned counsel for the prosecution, who was himself a distinguished scholar, knew perfectly well that in the ancient heathen philosophy, in the times of Zeno and Epicurus, after all the duties and trials of life had gone, and nothing but suffering remained to be endured, it was taught that a man might go quietly out of the world. But one of the wisest men had written that the human frame should be taken to pieces, and was best taken to pieces by the Power that compacted it and put it together. The doctrine of the Christian Church was plain. They would be doing the prisoner no more than justice by supposing that he believed the doctrines he taught; and, therefore, suicide in a clergyman, who believed in the doctrines of re-



penitance and forgiveness, was a more formidable sin than in ordinary cases, in which persons committing it rushed into the presence of their Maker in the commission of actual sin. It might be that this act of suicide should be looked at in that light, and not as though it was precisely the case of any ordinary individual. He had endeavoured to state the evidence to the jury on both sides. If they fancied they discovered any leaning in him, he begged them to disregard it altogether. The responsibility was not with him, and he did not mean to assume it. It was entirely with them. *Primâ facie*, it was a case of murder, but if they thought upon this evidence, he might say well deserving their consideration, either that the prisoner did not know what he was doing, or did not know he was doing wrong, in that case they would acquit him, but they must state the reason why.

The jury retired at five minutes past five o'clock to consider their verdict, and returned into court at twenty-five minutes to seven. Their names having been called over, and the prisoner having been brought to the dock, the Clerk of Arraignment (Mr. Avory) asked them if they had agreed upon a verdict. The foreman replied that they had.

Mr. Avory—Do you find the prisoner Guilty or Not Guilty?

The Foreman—We find him *Guilty*, but we wish strongly to recommend him to the mercy and clemency of the Crown on account of his advanced age and previous good character.

Mr. Avory, amid profound silence, asked the prisoner if he had anything to say for himself why the Court should not give him judgment to die according to law.

The prisoner, in a low voice, answered—I only wish to say that the defence which has been maintained in my favour is a just and honest one.

Mr. Justice Byles, assuming the black cap, said—Prisoner at the bar, nobody who has heard this trial can regard your case otherwise than with the deepest compassion. My duty is simply to pronounce the sentence of the law—that you be taken to the place whence you came, and then be delivered to the custody of the Sheriff of Surrey; that you then be taken to a place of execution, be hanged by the neck until you are dead, and that your body be buried within the precincts of the prison. May the Lord have mercy on your soul!

The prisoner, who was evidently in a weak state, was removed from the dock with the assistance of two warders.\*

\* The following description of the scene in court appeared in the *Globe*:—

The trial of the Rev. John Selby Watson for the murder of his wife was in every way one of the most remarkable of modern times. The position, age, profession, and high literary attainments of the accused, the horrible atrocity of the crime, the obscure psychological phenomena of insanity upon which the defence was based, the singular indifference exhibited by the prisoner throughout the trial, and above all the unexpectedness of the verdict of guilty returned in the teeth of a summing-up by Mr. Justice Byles which, while it deviated not one hair's-breadth from the strict line of judicial impartiality,

We shall not enter into any lengthened comments on this case, but leave the evidence as we have taken it from the somewhat curtailed, but fairly accurate report, in "The Times." The theory of the prosecution was that Mr. Watson, being of sound mind, killed his wife in a passion, in conse-

suggested an acquittal on the ground of insanity in words that could not be mistaken by any one who heard it—all these incidents serve to invest this trial with an unusual interest; and, unless we are much mistaken, the propriety of the verdict and the question of the sanity of Mr. Watson at the time of the murder will continue to be a subject of fierce debate for many days to come. During the whole of the trial the prisoner maintained the same expression and attitude. He is a thick-set man, with the stooping gait of age. Whatever organs of destructiveness and combativeness a phrenologist might profess to discover in the cranium of this murderer, the ordinary observer would be attracted by the breadth of the prominent forehead; the quiet acuteness of the sunken gray eyes; the pensive, studious aspect of the whole countenance; the grave, ponderous demeanour of the scholar of "the old school." He hardly moved except to take a note now and then, after which he would relapse into his accustomed state of moody indifference. The evidence of the witnesses appeared to attract his attention but little, the speeches of the counsel still less, the summing up of the judge not at all. It is not often that a trial of this importance is carried on with more fairness, dignity, mutual goodwill, and ability combined, than were exhibited in this instance by the counsel, both for the prisoner and for the Crown. We have become a little too much accustomed of late to sparring matches between leading advocates during the heat and excitement of the forensic fray, and it is positively refreshing to find a case in which all the counsel engaged tacitly agree to forget their own importance, and to resist the temptation to little "tiffs." Mr. Denman's fairness and temperateness in conducting the prosecution were so conspicuous as to be more than once the subject of encomium by the learned judge in his summing-up. Serjeant Parry was, as he always is, accurate, eloquent, earnest, and zealous. The examination of the witnesses by the junior counsel on both sides was admirable in every respect. So far it was a model trial. It is the verdict alone which can provoke criticism. Daylight had changed to dusk, and dusk had deepened into darkness, yesterday afternoon before Mr. Justice Byles had finished his summing-up and the jury retired to consider their verdict. Everybody said that it was a mere matter of form, and that after what the judge had said, an acquittal in a few minutes was quite certain. The judge kept his place, the counsel and spectators kept theirs, but the prisoner was removed from the dock; a quarter of an hour elapsed, but no jury appeared; half an hour, and the buzz of conversation wanes under the silence that impatience begets; three-quarters, and the prisoner's counsel begin to look anxious and to confer in serious whispers, and a rumour born of conjecture goes about that the jury have disagreed and must be locked up for the night; an hour, an hour and a half, and it is half-past six; the spectators glance nervously at the clock and the door of the jury-room. At last a cry of "Silence" heralds the entrance of the jury. The judge, who has retired, is sent for, and when he arrives the prisoner is placed at the bar. There is a dreadful silence while the jurors' names are called, and an irrepressible sigh of pity when the fatal word "Guilty" is uttered by the foreman, and then there is a dreadful silence again, and the gaze of every one is turned upon the venerable face and form of the convict, who stands calm and unmoved, and seemingly lost in thought. The judge is evidently pained and distressed, and can hardly utter the text of the dreadful sentence.

quence of some provocation which he received from her. The theory of the defence was that in consequence of the unexpected loss of his office, his failure in his attempts to get further employment, and the prospect of destitution which lay before him, his mind had given way; that he had showed symptoms of melancholia before the murder; that, under a provocation which he would have easily resisted in health, the act was done in a paroxysm of homicidal fury, such as notably is sometimes an effect of melancholia; and that the symptoms which he presented in Newgate were such as might be expected, in an old man, to follow the attack of insanity which he was presumed to have had. It was unfortunate for the defence that an important witness as to the mental state of Mr. Watson before the crime, was unable, on account of serious illness, to attend the trial. By order of the judge, and by consent of the prosecuting counsel, after seeing the evidence which this witness was prepared to give, the trial had been put off from the previous Sessions of the Central Criminal Court, but when it came on he was still unable to attend. We believe that this witness, a gentleman engaged in tuition at Liverpool, would have given evidence to the effect that he had entered into negotiations with Watson with regard to a joint educational project; that he had visited London for the purpose of having an interview with him; and that he found him so strange, when he came to talk with him, that he had concluded he was not in his right mind, and broke off the negotiations. Doubtless there is some good reason why evidence which may be taken by commission in a civil trial cannot be so taken when a prisoner is on trial for his life, but it is clear that the rule may press hardly on a prisoner.

In some of the comments which have been made on this trial it has been asserted, notwithstanding the evidence actually given, that the defence rested entirely on the assumption of a paroxysm of homicidal fury in a person whose mind had exhibited no previous symptoms of disorder. This was not so. The mental disorder alleged to have existed before the homicide was that form of morbid emotion or simple melancholia in which the *raptus melancholicus*, most often suicidal, but sometimes homicidal, is certainly apt to occur.

In melancholia, as Griesinger observes, this emotional state of uneasiness, anxiety, and mental suffering, give rise to certain impulses of the will, which are expressed in outward actions that always

have a gloomy, hostile, and destructive character. The ideas and feelings which thus pass into efforts, and the acts which are the result of them, may be directed either against the individual himself, against any other person, or finally against inanimate objects; and according to the difference of the outward act, these cases have been described as different monomanias—monomania of suicide, homicide, arson, &c. Directly and immediately connected with the suicidal impulse is the morbid tendency to injure and destroy other persons. Not only do these tendencies frequently occur together, not only have these acts of violence against others, which are often perpetrated upon those most loved and cherished by the patient, fundamentally the same essential character as the tendency to self-injury, but, in general, both depend upon the same fundamental state of morbid emotion, and in both there may be also observed certain differences in the immediate morbid cause. In regard to a great many of these cases, there is a most important and characteristic circumstance which we have already adverted to in speaking of suicide, namely, the freeing of the patient from his painful emotions and thoughts by the fact that the deed committed has become objective to him: the ease and calm which he gains by the expression of his mental suffering in the accomplishment of the deed—a circumstance which gives to these acts what has been termed a critical significance.

The case of Samuel Wallis, to which we have referred, furnishes an illustration of the truth of these observations; and, indeed, many of the suicides and homicides by insane persons, which are almost daily reported in the newspapers, are examples of such acts of violence by persons labouring under commencing melancholia, who have not been thought ill enough by their friends or medical attendants to be placed under control.

Of this kind, apparently, was the insanity of Charles Lamb's sister, Mary Lamb. Worn down to a state of nervous depression by attention to needlework by day, and to her mother by night, "she had been moody and ill," says Barry Cornwall, in his life of Charles Lamb, for a few days previously, and the illness came to a crisis on the 23rd September, 1796. On that day, just before dinner, Mary seized a "case-knife," which was lying on the table, pursued a little girl (her apprentice) round the room, hurled about the dinner forks, and finally, in a fit of uncontrollable frenzy, stabbed her mother to the heart. Charles was at hand only in time to snatch the knife out of her grasp, before further hurt could be done. He found his mother dead, and his father bleeding at the forehead from the effects of a blow which he received from one of the forks. After the inquest, Miss Lamb

was placed in an asylum, where she was in a short time restored to reason. When we peruse the angry articles which appear in some newspapers, and observe the savage sentiments expressed, whenever the defence of insanity is set up at a trial for murder, we wish deeply that the writers would read and bear in mind the sad story of Miss Lamb, and try to realise the fact that the case might be theirs. Actual experience of insanity in one near and dear makes a wonderful alteration in the tone of speaking about the dreadful malady, and it sometimes happens, under such circumstances, that those who have been most violent against the "mad doctors," become equally loud and violent against the barbarity of the law. They would heroically hang madmen who do murders, until they are touched themselves by its nearness in a beloved member of the family. To have so felt its affliction, and to have so known its strange inconsistencies, its impulsive paroxysms, its senseless cunning, its reasoning unreason, usually softens men's minds, and prevents them from being fierce and brutal. We say *usually*, because, incredible as it may seem, it does sometimes happen that a person who has a near relative insane, will show himself exceptionally severe and savage in his denunciation of the mercy shown to the murderer who is alleged to be insane.

It has furthermore been asserted that there was not any case on record of an impulsive act of homicidal insanity in a person who had not shown any symptom of insanity before the act. In answer to this erroneous statement, we may again simply quote so well-known and eminent an authority as Griesinger, who says—

Almost as obscure, in so far as the motives which dictate them are concerned, and yet of the greatest importance in a medico-legal point of view, are those cases where individuals, hitherto perfectly sane and in the full possession of their intellects, are suddenly, and without any assignable cause, seized with the most anxious and painful emotions, and with a homicidal impulse as inexplicable to themselves as to others.

There are, in fact, numerous such cases on record, and they are related or referred to, we believe, by every writer of authority on insanity from the time of Pinel down to the present day. One more quotation, from Dr. Ray's valuable "Treatise on the Medical Jurisprudence on Insanity," shall, however, suffice here :—

The last and most important form of moral mania that will be  
VOL. XVIII.

noticed, consists in a morbid activity of *the propensity to destroy*; where the individual, without provocation or any other rational motive, apparently in the full possession of his reason, and oftentimes in spite of his most strenuous efforts to the contrary, imbrues his hands in the blood of others—oftener than otherwise of the partner of his bosom, of the children of his affections; of those, in short, who are most dear and cherished around him. The facts here alluded to are of painful frequency, and the gross misunderstanding of their true nature, almost universally prevalent, excepting among a few in the higher walks of the profession, leads to equally painful results. In the absence of any pathological explanation of this horrid phenomenon, the mind seeks in vain, among secondary causes, for a rational mode of accounting for it, and is content to resort to that time-honoured solution of all the mysteries of human delinquencies—the instigation of the devil. Of the double homicide to which this affection gives rise, there can be no question which is most to be deplored; for, shocking as it is for one bearing the image of his Maker to take the life of a fellow being with brutal ferocity, how shall we characterise the deliberate perpetration of the same deed under the sanction of the law and the popular approbation? We trust, however, that the ample researches of writers of unquestionable veracity, and which are now just reaching the attention of the legal profession, will be soon followed by a conviction of past errors, and a more rational administration of the criminal law.

So much for the testimony of authority on the one hand. On the other hand, Dr. Sheppard “did not think there was any case on record of an impulsive act of insanity involving homicide in a person who had not given any evidence of insanity before;” and in a letter which appeared in the “Times,” before the decision of the Home Secretary with regard to Mr. Watson’s fate was announced, he expressed himself very positively and confidently:—“Certainly I have never heard of, and never seen in my large experience here or elsewhere, any homicidal or suicidal attempt without antecedent evidence of unmistakable insanity.” In fact, “antecedent evidence of intellectual impairment and affective disturbance is very marked in those cases, and impulsive acts of a lesser kind (such as breaking furniture, tearing clothes, &c.), are the accompaniment.” If Dr. Sheppard will extend his reading, we feel sure that he will soon discover the error of his statement; and if he will extend his observations, forbearing meanwhile a hasty and inadequate generalisation from his experience of the demented and destructive lunatics at Colney Hatch, we feel sure that he will be amazed, as most of our readers will be, at the assertion that tearing of clothes and

breaking of furniture are the accompaniment of homicidal impulse. We doubt whether it would not be more true to say that the most dangerous homicidal lunatics are the most sensible and plausible of insane patients, and discover least evidence of insanity. However, whether that be so or not, there can be no doubt of the cases on record in which there was no antecedent evidence of unmistakable insanity, and of the agreement of authorities of weight on that point. Nor is there anything extraordinary in the fact, as Sir William Gull pointed out in his address to the Clinical Society—

Lately you are aware I have been called upon to make a diagnosis of the finest kind, of the working of the function of the brain as expressed in the mind—not to diagnosticate a tumour, a ramollissement, a degeneration of the brain, but to test its moral and intellectual dynamics. There is often encountered a prejudice at the outset of such an inquiry from the taunt that the doctors assert that such and such a person is insane because he has committed a crime. But permit me for a moment to point out that we judge of the previous strength of any material by the strain it will bear. Should it break under the test, it would be absurd to maintain it could not have been made weak or imperfect beforehand; and may not the first evidence of mental and moral defect be due to some stress of circumstances, often exaggerated and distorted, which is put upon the brain, and that break-down which in another would be crime becomes the first sign of insanity? In the defects and diseases of other organs this is a matter of the tritest experience. How often does aortic or mitral imperfection first become known by some sudden exertion; yet who would on that account deny the previous weakness? The beginnings of disease are, as a rule, latent and obscure, and discover themselves only when some strain is put upon the weak part. Illustrations of this are at hand on all sides, whether in the heart, the lungs, the abdomen, or the brain. It was only our ignorance which led us formerly to believe in acute idiopathic disease in healthy subjects, and it is probably equally so with nervous conditions, and with the mind. There are, doubtless, many persons living uneventful lives who maintain a sane equilibrium until influenced by some circumstance, real or imaginary, and who then at once show their weakness; and yet from the high seat of justice we often hear the objection put forth as an argument that there was no sign of insanity beforehand, and therefore the patient was sound. But the sign of unsoundness may be what has occurred. I am sure we, as clinical students, have our minds perfectly alive to this, and although some of the most learned and practical men in our profession maintain that the diagnosis of the intellectual and moral status is an inquiry we ought not to take up, and that the common sense of man fits everyone equally to make this diagnosis with the most accomplished physician, I cannot think so; and if it be a fact it must not so remain, for it would be un-

worthy of us to leave uncultivated a field of inquiry so important to man. *Medici sumus, humani nihil nobis alienum esse putamus.* As medical men we know of tendencies to latent insanity without the least overt evidence of their existence; minds which on a strain will certainly give way. We know this as well as we know of weak and imperfect hearts or other viscera, which perform their functions fairly until called upon to meet some extra demand, and then they fail altogether. The onset of acute disorders of mind or body, to use a common expression, by no means coincides with the date of their causes. This is so well established in medicine that we go back upon a latent cause from the occurrence of acute effects, feeling assured we shall find it, however previously hidden. It is only the ignorant who can overlook these connexions, and yet in matters of the mind this oversight is esteemed the safeguard of truth.

Returning now to the case of Mr. Watson, on which the immediately preceding remarks have no special bearing, except so far as erroneous scientific statements might have prejudiced his fate, it remains only to mention that he was reprieved on the recommendation of Mr. Justice Byles, in which the Lord Chief Justice concurred, and that his sentence was commuted to penal servitude for life. This conclusion, though eminently British, does not appear a very logical one; for if he was not mad at all, he certainly deserved hanging if ever man did, and if he was mad it was hardly right to consign him to penal servitude. The verdict of the jury was understood to be a compromise between those who thought him insane and those who did not think him insane, five being of the former and seven of the latter opinion. They would not acquit him on the ground of insanity, but they would strongly recommend him to mercy, so that he might not be hanged, and so would transfer the responsibility of his ultimate fate elsewhere. But it was hardly desirable to endorse a recommendation to mercy on grounds which, if they mean anything, mean that a man who has had a previous good character, and has passed sixty years of age, may commit murder without danger of being hanged for it. Previous good character, and the attainment of an age when the passions are slumbering to their decline, are rather, one might argue, aggravations of a murder than otherwise. The judicial recommendation seemed equally inconsistent; it must, indeed, appear the more so since we have heard from the speech of Mr. Winterbotham, the Under Secretary for Home Affairs, to his constituents at Stroud, and as the tenor of the summing up seemed to imply, that the learned judge entertained



and expressed a belief that Watson was insane.\* However, we feel no inclination to quarrel greatly with the decision; sane or insane, Mr. Watson did not inspire us with much regard for his character; and as the punishment to which he has been sentenced is not an irrevocable one, it will be easy to make a change should it appear just to do so. Meanwhile it does an insane person no harm to make him work if his health will bear it.

In taking leave of the case it is a gratification to testify to the calm, dignified, and impartial manner in which it was tried by Mr. Justice Byles. Such a testimony to the impartiality and dignity of the English Bench may seem superfluous and unnecessary, but no one could think so who witnessed the marked and painful contrast presented by the trial of Christiana Edmunds, before Mr. Baron Martin, in the same court in the following week. In the course of the examination of the medical witnesses for the defence Mr. Justice Byles intimated that there was a difference of opinion among the judges with regard to the worth of the legal criterion of responsibility in cases of alleged insanity, some of them believing that it might be put in a better form, and when a passage from Dr. Blandford's work condemning the legal criterion was read, the learned judge expressed his agreement with the strictures. Let us hope that the day is not far distant when we shall hear no more of it except as a curiosity of bad law. It will not pass away without having done its work, for in its time it has assuredly sent the souls of many insane persons to Hades.†

\* In his speech to his constituents, at Stroud, Mr. Winterbotham, the Under Secretary of State, said:—"The learned judges who tried Watson and Edmunds came to the decided opinion that in each case the prisoner was insane, and ought not to be executed. In the case of Mr. Watson the Home Secretary acted, as he invariably did, upon the recommendation and report and strongly expressed opinion of the judge who tried the case, confirmed as it was by the opinion of other judges." The fact is, as we have been informed, that the Lord Chief Justice and Mr. Justice Byles reported that in their judgment Mr. Watson was insane at the time he killed his wife, though they did not go so far as to say that he was legally insane. Special instructions have been given that Mr. Watson shall be carefully watched in prison, and that, if he exhibits any symptoms of insanity, he shall be removed at once to Broadmoor.

† We may instance the recent case of Addington, a shoemaker, who was tried at the Northampton Assizes in July last. He was married, had always been much attached to his wife, and treated her kindly. On the 30th of May he was seen talking quietly to her in front of the house, when he suddenly lifted her up and carried her into the house. A scream was heard, and he came out to say that he had stabbed his wife. He had done so with his shoemaker's awl. The woman died, saying that he had struck her in a fit of passion, and expressing with her last breath her affection for him. He confessed at once what he had done, and gave himself up to the police. In due course he was tried, convicted, and sentenced

The trial of Christiana Edmunds took place in the week after that of Mr. Watson. It was an unfortunate thing for both prisoners that their trials did come so near together, for as they were both persons of some education and position, and as the allegation of insanity was made in both cases, prejudice was excited against the defence. Suspicion was naturally felt by some persons that this sort of defence was only adopted in order to rescue persons of the better classes from the scaffold. There was no real ground for such a feeling. Had the prisoners been the poorest of the poor, we believe that the same kind of defence would have been adopted; but it is quite possible that, if they had been poor and friendless, and so without means to obtain proper legal help, the defence would have been of so feeble a character as to have made no impression, and might perhaps have been laughed or sneered out of court. There is certainly not the same justice obtainable by rich and poor when the cost of conducting a prosecution properly, or of maintaining an adequate defence, is utterly beyond the means of the poor and friendless.

We take the following summary of the case for the prosecution and the report of the evidence for the defence from the "Times:"—

Christiana Edmunds was charged with the wilful murder of a little boy named Barker, at Brighton, on the 12th of last June. On that morning the boy's uncle bought some chocolate cream drops at the shop of a respectable confectioner, named Maynard. In the afternoon the boy ate of the drops, and died in half an hour afterwards, under evident symptoms of poisoning from strychnine; and his stomach was found after death to contain a dose of that poison sufficient to kill an adult. An inquest was held on the child, and a verdict of "Accidental Death" returned. Public feeling, however, was much dissatisfied, and subsequent occurrences aggravated the excitement. In the end the prisoner was charged with an elaborate and prolonged plot to poison the sweets sold at Mr. Maynard's shop. Of the motive we will speak presently; but the evidence left little doubt of the fact. It was proved that between March and June she had obtained from a chemist at Brighton, on various pretences, and once under a false name, an amount of strychnine capable of poisoning some sixty or seventy people. Towards the end of May she asked a little boy in the street

to death, the defence of insanity having been raised in vain. For some time he had been morbidly excitable, had conceived irrational suspicions of his wife's fidelity, and had had delusions with respect to her conduct; he had been drinking hard, too, before the murder. Urgent representations were made to the Home Office, but Mr. Bruce declined to interfere, and he was hanged.

to go to Mr. Maynard's and buy her some chocolate creams. She opened the paper bag he brought her, said they were too large, and sent him back to exchange them for smaller ones. Accordingly, the larger sweets were replaced in the shop. It was alleged by the prosecution that the prisoner had contrived to substitute poisoned sweets for those the child brought her, and that these had caused the death of the little boy. In confirmation of this suspicion it appeared that she had frequently sent little boys on a similar errand; she had also more than once left parcels of these sweets in various shops, and several children who had eaten them suffered from symptoms more or less resembling those caused by strychnine. The counsel for the defence did not dispute that the prisoner had thus distributed chocolate creams to many children who became ill in consequence. All he could urge as to the defect in the circumstantial evidence was the difficulty of proving either that the prisoner had really substituted poisoned sweets for those the little boy brought her, or that, even if she did, it was from these sweets that the child Barker died. But, as Mr. Maynard gave a satisfactory account of the manufacture of his confectionery, and the prisoner was proved to have procured quantities of the very poison which was used, and to have distributed poisoned sweets, there was little room for entertaining any "reasonable doubt" of her guilt.

To complete the chain of presumptive evidence, it, however, remained to indicate the motive for this extraordinary course of systematic poisoning. The prisoner had no malice against any of the children to whom she gave these creams—least of all against the boy who was killed by them. She is convicted of murder, as Serjeant Parry well explained, on the same principle as a man who should deliberately fire a loaded pistol into a crowd and kill a person in it. Now, it was proved that she had taken singular pains, even before the death of the child, to fix upon Mr. Maynard the responsibility of selling noxious sweets. Last March she called on him and told him that some of his chocolate creams had made herself and one of her friends very unwell, and said they ought to be analysed. At the inquest she volunteered to give evidence, and deposed to having bought chocolate in the preceding September which had occasioned painful symptoms to herself and another lady; and after the inquest she addressed a series of anonymous letters to the father of the deceased child, inciting him to take proceedings against Mr. Maynard, and reiterating again and again that the seller of the chocolate was answerable. But what motive had she for thus attempting to throw blame on Mr. Maynard? The Judge said he wished this part of the case could have been kept out of Court; but it was commented on by counsel, and is, at all events, essential to a full understanding of the matter. She had formed the acquaintance of a medical man named Beard, and on her part, at all events, strong feelings of regard had been aroused. In September, 1870, she gave Mrs. Beard a chocolate cream, which occasioned sharp symptoms of illness; and she had been accused of deliberately intending to get Dr.

Beard's wife out of her way. Her mother stated that this accusation had greatly excited her; and it will now be observed that the whole history of the distribution of poisoned sweets is of a subsequent date to this occurrence. It appears, then, too probable that, in order to free herself from this accusation, and possibly in order to set herself right with Dr. Beard, she conceived the idea of convicting Mr Maynard of selling poisoned confectionery. She contrived by skilful artifices to convey poisoned articles into his shop, and she scattered about the town bags containing noxious sweets which purported to come from him. She was greatly disappointed when the verdict of the Jury at the inquest failed to convict him of general carelessness, and she carried her plot still further, until it led to her being herself suspected.

After Serjeant Parry, who was counsel for the defence, had addressed the jury, the following evidence was given:—

Mrs. Ann Christiana Edmunds was called and examined by Mr. Poland.—She was at first greatly distressed. She said—The prisoner is my daughter, and her father, now dead, was an architect at Margate. The prisoner was born there in 1828. In 1843 my husband became insane, and was sent to a private lunatic asylum at Southall, where he was confined till August, 1844. He was very strange in his manner a long time before he was sent there. He raved about having millions of money, and attempted to knock down his medical man with a ruler. He had to be confined in a straight jacket before going to the asylum. He had two attendants before he was sent there. In August, 1844, he returned home from considerations of expense. He was better, and remained home until March, 1845, when he had to be sent to the Peckham Lunatic Asylum. He remained there until March, 1847, when he died in the asylum. For a considerable time before his death he was paralysed, though he could move. He was all drawn on one side. He was about 47 when he died. I had a son named Arthur Burns Edmunds. He was subject to epileptic fits from a child. In February, 1860, we could not manage him. He was very violent at times, and was at length taken to Earlswood Asylum, where he remained until 1866, and died there. I had a daughter, a sister of the prisoner. She is now dead. She suffered from hysteria, and attempted, when in a fit, to throw herself from a window. She was about 36 when she died. She was always excited, and suffered from hysteria. My father, Mr. Burns, was a Major in the Army. He died at the age of 43. He was paralysed before he died, and died in a fit. He had to be fastened in a chair, and was quite childish before he died. I had a brother who had a daughter. She suffered from weakness of intellect. She was quite imbecile. She lived with me three years. The prisoner, in 1853, suffered from an illness, and was sent to London. On her return she was paralysed on one side and in her feet. She could not walk. Mr. Prettyman, a surgeon, now dead, at-

tended her. Besides paralysis, she suffered from hysteria. She would come from her room at night into mine, and say she had had a fit of hysteria and could not breathe. She suffered from it for several years, and even now at times. As a child she walked in her sleep, and I was obliged to have a button on the outside of a door to prevent her walking out in that state. Recently, and for some time back—ever since she had known Dr. Beard—I have noticed a great change in her demeanour.

By Mr. Serjeant Ballantine—The surgeons who attended my husband are dead. He was the architect of Trinity Church, the Light-house, and many other public buildings at Margate. Dr. Humphrey attended the prisoner after she came home from Margate in August last. I believe she had been poisoned after eating some fruit. I begged her when she ate a piece of a peach to put it out, and to remember the poor little boy Barker. She said she thought she was poisoned. I did not suggest to any one at that time there was anything the matter with her mind. It was a delicate subject to speak of. In consequence of statements made by Dr. Beard, I demanded a retraction from him, and threatened to put the matter in the hands of a lawyer. She was greatly excited by those statements, and I could not restrain her. She said the Beards had never spoken to her since the matter of the chocolates. She went about the room quite mad. She behaved with kindness to people in the house. She was beloved by everybody.

By Mr. Serjeant Parry—She is now about 43 years of age, and I have always had a dread of her in relation to that time of life; she is so very like her father.

Dr. Steward, examined by Mr. Worsley, said he is a doctor of medicine at Southall, and has an establishment for insane persons there. He remembered receiving into it Mr. William Edmunds, about 1843, on the usual medical certificates that he was of unsound mind and a proper person to be confined. He was described in them as 42 years of age. The idea of having immense riches was stated in the certificates to be one of the evidences of his insanity. He was also described as being fond of good living, but did not drink hard. It was a case of acute mania, with all the customary characteristics. The profession believed insanity to be hereditary, and that was confirmed by witness's own experience.

By Mr. Serjeant Ballantine—Affection of the brain, with increased action of the blood throughout, was one of the incidents of his disease, producing congestion, and resulting in this case in apoplexy. There was general incoherence of speech and sleeplessness. He talked all manner of nonsense. Those were not exactly the symptoms of *delirium tremens*. The father did not suffer from that. It was one of the cases that witness thought reducible by medical treatment.

Dr. Henry Armstrong, proprietor of the Peckham Lunatic Asylum, produced the medical certificates relating to the case of William

Edmunds, who was described in March, 1845, as being of unsound mind and a proper person to be confined. He died in the asylum on the 15th of March, 1847. The death was certified to be due to general paralysis, extending over three years.

Dr. George W. Grabham, resident physician at the Earlswood Idiot Asylum, produced the certificates relating to the admission of Arthur Burns Edmunds, a brother of the prisoner, in February, 1860. He was described as an idiot or imbecile, and was admitted as a private patient. He remained in the asylum until he died, on the 11th of January, 1866. He was 24 years of age, and the cause of death was assigned to epilepsy of ten years' standing. A blow on the head when a boy was assigned as among the exciting causes in the certificates. Witness did not believe a blow on the head would have had such effects as in that patient's case.

The Rev. Thomas Henry Cole, chaplain of Lewes Gaol, said he was two years chaplain and secretary at St. Luke's Hospital. He remembered the prisoner being brought to the gaol on the 19th of August. There was a rule in the gaol that if he noticed any insanity in a prisoner he was to report it to the governor, surgeon, and visiting justices. She was under his observation until Christmas-day. He observed in her a peculiar formation and expression in the eyes, and a vacant look at times in her features. He had many conversations with her, and they were perfectly coherent. They struck him as extraordinary, considering the circumstances under which she was placed. He expected to find her in great excitement and dejection, and he found much calmness and exceeding levity. He spoke to her about the position in which she was, and she broke into an extraordinary laugh. He tried to fix her mind on its gravity, and she seemed to have no power to do so. She burst into tears, and from tears she would rapidly pass to laughter. That was frequently the case. From what he observed he believed she was of unsound mind.

Alice Over, the wife of George Over, residing at Brighton, said she had known the prisoner about six years. She lived two years with her mother in witness's house, and left more than two years ago. The prisoner's general demeanour was ladylike, quiet, and good in every way. From about a year ago she noticed she had not been so quiet, and latterly she felt she was going mad. That was about March or April last year, or a little earlier. She was very strange. Witness said to her she seemed unhappy, and she replied she felt uncomfortable, and sometimes as if she were going mad. Her eyes were large and rolled, and her appearance made witness uncomfortable. Witness had not seen that before until lately, when she saw her oftener than before. She called to see witness frequently.

George Over, the husband of the preceding witness, and an accountant and auctioneer at Brighton, gave corroborative evidence. He observed that about 12 months ago the prisoner was a little strange when she called at his house. Her eyes were very full, and there was

a wildness in her look. Her manner, too, was a little more excited than usual. He noticed that alteration in her manner up to the time he last saw her.

Dr. William Wood, physician to St. Luke's Hospital for about ten years, and for several years resident physician at Bethlehem Asylum, said he saw the prisoner in Newgate about a fortnight ago, in company with Dr. Lockhart Robertson, Dr. Maudsley, and Mr. Gibson, surgeon of the gaol. He was very much struck with her absolute indifference to her position, and he failed altogether to impress her with its seriousness. He believed her to be quite incapable of estimating it, and that her mind was so weak that she was really incapable of judging between right and wrong in the same sense that other people would. He saw her about an hour and a half. There was no doubt insanity was hereditary, and it was a very probable thing that the children of the insane would be predisposed to insane acts. That would be the more so when there had been insanity on both sides.

By Mr. Serjeant Ballantine—She knew the object of his visit, and might have known who and what he was. He told her that he and those with him had come to ascertain the state of her mind. She appeared to understand him. He conveyed the idea to her that it was with a view to the trial, and she seemed to understand that. He said, among other things, "Do you know the consequences of a conviction?" She said she would rather be convicted than brought in insane. He concluded from that she did not know the position she was in or the gravity of the charge. He referred to what was said to have passed between her and Dr. Beard. He asked whether she thought it wrong for a person to destroy the life of another because she believed that the husband of that person wished to get rid of her. After some hesitation, she said she thought it would be wrong, but she did not say it in such a manner as to lead him to believe she really thought so. He reminded her that sometimes innocent people were convicted.

While the witness was being examined, the prisoner rose from her seat in the dock suddenly, and, addressing the Court, said she remembered the questions. She was told she could not be heard, and she resumed her seat.

Witness, continuing, said he did not recollect her answer, but the manner of it impressed him that she did not think it a matter of any importance. He could only repeat the general result of the interview, there having been a running conversation among four of them.

By Mr. Serjeant Parry—He judged by her demeanour and appearance rather than by the answers she made. He still was under the impression that she was not in a state to judge of right or wrong as other persons were.

Dr. Charles Lockhart Robertson, examined by Mr. Poland, said he is a physician, and had paid special attention to insanity as a disease for many years. He had seen the prisoner early in October last, and

again in December, the last occasion being when she was in Newgate. That was to ascertain the state of her mind, and he had very great difficulty in coming to any conclusion. He regarded hers as a case on the border-land between crime and insanity. He thought her intellect quite clear and free from any delusion, but that her moral sense was deficient, as in the descendants of insane parents. That was about the view he took of her case. He failed to impress her with the gravity of her position. Coupled with the history of the case, he was led to regard her as morally insane.

By Mr. Serjeant Ballantine—He is one of the Visitors of the Court of Chancery in Lunacy. He meant a permanent and salaried Visitor. He had referred to a deficiency of moral sense. He also observed an absence of moral sense. He considered her moral sense was not further developed now than when he first saw her. He believed she had the intellectual knowledge that it was wrong to administer poison in order to kill a person.

Dr. Henry Maudsley said he had made the disease of insanity his especial study, and had written a work on the subject. He was present when Dr. Wood and Dr. Robertson examined the prisoner. He concurred generally in what Dr. Robertson had said, so far as he had understood it. He found an extreme deficiency of moral feeling as to the crime with which she was charged, and that she did not appear thoroughly to realize her position. As to her moral sense, he believed her mind to be impaired.

By Mr. Serjeant Ballantine—He meant by impaired moral sense a want of moral feeling as to events or acts regarding which a perfectly sane person might be expected to exhibit feeling. He should say everybody who committed crime exhibited some want of moral feeling. He had signed, with others, a certificate to the Home Secretary in the case of the Rev. Mr. Watson since the conviction, and he still adhered to the evidence he gave on that gentleman's trial.

That was the case for the defence.

Mr. Serjeant Parry, reviewing the evidence adduced on behalf of the prisoner, contended as a fact that she was a member of an insane family, and had very likely inherited the disease from her father, and also from her mother's father, who was imbecile and lunatic, dying at the early age of 45. He commented on that part of the mother's evidence in which she said she dreaded the arrival of the prisoner at a certain period of life, reminding witness so much as it did of the prisoner's father. These were facts extremely well worthy the consideration of the jury, and he argued that the acts of the prisoner appeared to have been motiveless. She could have had no motive for the commission of such a crime. He cited the case of Hatfield, who shot at George III., in 1800, under the delusion that he was the Saviour of the world, as one in point. He knew the crime he had committed was murder, and yet Serjeant Parry had never heard or read a syllable against the propriety of the verdict in that case that the prisoner was



insane. He dwelt on the evidence of Dr. Maudsley as to the hereditary effect of insanity in a family, and urged that the prisoner in this case must have suffered from the insanity in hers. There was never probably such a family history in reference to insanity, and he over and over again entreated the jury to bear it in mind. He dwelt on the important evidence of the Rev. Mr. Cole, the chaplain of Lewes Gaol, in support of the view he was urging. That gentleman evidently thought her insane, as did also Drs. Wood, Robertson, and Maudsley. He asked if this case was to be a contest between the law of the country and medical science. If the jury believed the prisoner to be of unsound mind, then she did not know the difference between right and wrong. Deprecating the unseemly contest between the law and medical science in this case, he took occasion to say the men who had made mental disease their peculiar study were benefactors of the human race, and were entitled to respect wherever they were. If, by the law of England, the prisoner, like any ordinary person, knew the difference between right and wrong and the quality of the act she committed, and, notwithstanding that, perpetrated the crime laid to her charge, be it so; but it was for the jury to decide, and, whatever their verdict, it would be received with the respect to which it was entitled.

Baron Martin, in summing up the case to the jury, said there were two questions for their consideration. The first was, whether they believed that on the occasion of the boy Adam May buying at the shop of Mr. Maynard a packet of chocolate creams, at the request of the prisoner, and on his taking them to her she contrived to substitute for them, or some of them, others containing poison, and asked him to take them to the shop of Mr. Maynard to be exchanged, with the intention, on her part, that they should be sold there; if they believed she gave the boy May poisoned sweetmeats, intending that he should take them to Maynard's shop, and that they should be sold there; and if they also believed that one of these poisoned sweets was sold to a relative of the deceased boy Barker, and administered to him, and that he died from its effects, the prisoner would be guilty of the murder of the child. The second point was, whether the prisoner was in such a state of mind as to be responsible for her actions. He reviewed the evidence as to the circumstances under which the chocolate creams were given to the deceased, and said he thought they might assume it to be an established fact that poison had been added to the creams he took. Assuming the child had been poisoned by strychnine, and that it was found in the creams, the question was whether the prisoner was the person who put it into them. He read the evidence bearing on that part of the case, and left it to the jury to say whether there could be any doubt that she had possessed herself of strychnine, and in considerable quantity. There was also the fact that she clearly knew that what she got at the shop of Mr. Garrett was poison. The learned Judge dwelt upon the manner in which she had given

sweets to children in the streets and left them at shops, and upon the illnesses, dangerous in some cases, resulting to those who had eaten them. He referred to her voluntary examination before the coroner, and said that after that she seemed to have gone about with creams and given them to other children. Addressing himself to the question of insanity, he said it was a difficult one. A poor person, he remarked, by the way, was seldom afflicted with insanity, and it was common to raise a defence of that kind when people of means were charged with the commission of crime. He had heard a doctor say that all mankind were mad more or less, but that had little to do with the case under consideration. The state of mind which excused crime was well fixed in our law. There were many diseases to which the mind was liable as well as the body. There was the idiot, who was born without any mind whatever. Again, there was the man who was raging mad, and if he had what was called a homicidal tendency he would have no more criminal responsibility than a tiger. But the most numerous cases of that kind were of persons said to be subject to delusions. They were persons who believed in a state of things which did not exist, and acted on that state of things. It might be that because the father of this unfortunate woman had been the inmate of a lunatic asylum her mind was not sound; but that was not in the least the question the jury had to try. The learned Judge read at length, as bearing upon this part of the case, the answers of the late Justice Maule, Lord Cranworth (then Baron Rolfe), and Baron Parke to the questions submitted by the House of Lords to the Judges in M'Naghten's case in relation to insanity; and he submitted that on their high authority every man must be responsible for his acts until it was shown to the contrary. If the jury in this case should think that the prisoner did not know right from wrong at the time she committed the crime with which she was charged, if she did commit it, they would acquit her; but, if they so found, they would accompany their verdict with an intimation that they did so on the ground of insanity.

The jury retired to consider their verdict at ten minutes to four o'clock, and returned into court exactly an hour afterwards with a verdict of *Guilty*.

The court was at that time densely crowded.

Being asked, after a pause, in the customary manner by Mr. Avory, the Clerk of Arraignment, if she had anything to say why the Court should not give her judgment to die, the prisoner replied that she wished she had been tried on the other charge which had been brought against her. As to the improper intimacy which she said existed between herself and Dr. Beard she had wished to be examined on that subject.

Baron Martin, who had by this time assumed the black cap, explained to her that it did not rest with him for her to be tried on that charge, but with the counsel for the prosecution.

The Prisoner—It is owing to my having been a patient of his, and the treatment I received in going to him, that I have been brought into this dreadful business. I wish the jury had known the intimacy, his affection for me, and the way I have been treated.

Baron Martin said he was not at all disinclined to believe her statement. He believed the unhappy circumstances in which she placed herself towards the end of 1870 probably led to the position which she was now in; but the truth of that only confirmed the propriety of the verdict. In order to have her case fairly tried he himself had wished to keep out the whole of that case, for it seemed to him, the more he thought of the matter, it was only calculated to make her position the worse. He was quite satisfied the unhappy circumstances under which she became acquainted with Dr. Beard and Mrs. Beard led to her poisoning fruit and a variety of other things. That he could well believe; but he had but one duty to perform. He concurred in the verdict of the jury. They had, he believed, arrived at a right conclusion. He believed that, having got into her mind the idea of poisoned sweets, she contrived to poison those she got the little boy Adam May to bring for her, and in that way, in the result, the little child Barker came to his death. That she had no desire to kill that particular child he could well believe; but she got into a morbid state of mind in consequence of her relations with Dr. and Mrs. Beard, and that had led to all that had occurred. That he believed to be the truth of the matter; but he wished to keep Dr. and Mrs. Beard entirely away with the view of giving her the fairest trial in the position in which she stood. He himself believed she was guilty, and that the verdict of the jury was correct in rejecting the defence of insanity. In truth, he believed there was no reliable evidence to go to the jury on that point, and that they felt it impossible to arrive at any other conclusion. The real question was, not whether she was a person of weak mind, but whether her mind was in a state to distinguish right from wrong. That, undoubtedly, was the form in which the law recognised the question. With such letters before them as she had written, it was impossible for the jury to have arrived at any other conclusion. If they could have found another verdict they would, as honest men, only have been too glad to do so. He did not wish to make any observations calculated to distress her. He only said he believed, in his judgment, the verdict was a right one, and right upon both points. The law imposed upon him the duty to pass upon her the sentence of death, which he proceeded to do in the prescribed form, directing at the same time that it be carried into effect in the county of Sussex, in which the crime was committed, and adding, with much fervency, might the Lord have mercy on her soul!

The prisoner had been removed from the dock while the jury were deliberating, and on their return she was brought in again. Of her own motion she walked to the front of the bar, her bearing at that supreme moment being singularly firm, and betrayed no visible emo-

tion. It was also respectful and becoming. She heard the verdict without any apparent distress. Her countenance was slightly flushed, and her eyes beamed with an unwonted expression. In the few words of complaint she addressed to the Judge she spoke with much modesty and propriety, and afterwards heard the sentence with fortitude. At its conclusion she was asked by the Clerk of Arraigns the customary question put to all women under sentence of death, as to whether she knew of any cause in her condition why execution should be stayed. The meaning of this was interpreted by a female warder, and she replied, through her, that she was pregnant. Thereupon, according to an ancient usage, which has long been rare, a jury of matrons, chosen from among ladies who happened to be in court at the time, was forthwith empannelled to try the issue which the prisoner by her answer had raised. In that they were assisted by Dr. Gibson, the prison surgeon, and by Dr. Beresford Ryley, of Woolwich, who chanced to be among the audience. The result was a verdict that the prisoner was not pregnant.

With that the trial ended, and the prisoner walked unaided from the bar. It is a noteworthy circumstance that there has been no occasion before for empanelling a jury of matrons at the Central Criminal Court for about 15 years.

That Christiana Edmunds was not insane in the legal sense of the word insanity, there could be no manner of doubt. That she knew perfectly well what she was doing in purchasing poison, and in disseminating it broadcast through the town by means of poisoned chocolate creams, and that she knew she was therein doing what was wrong, were equally beyond dispute. Her whole conduct before the crime, and her perfectly rational conversation in gaol, clearly proved that she could have taught a schoolroom of children the Ten Commandments, and could have explained to them clearly that it was a wicked act to break any one of them, and a most wicked act to break the Sixth Commandment. But no one could have talked with her in gaol without being convinced that in her own case she had no real feeling of the wicked nature of her acts, and that she would have poisoned a whole city full of people without hesitation, compunction, or remorse. Indeed, it may be doubted whether in her later experiments she was really so much influenced by the inadequate motive which no doubt instigated them at the beginning, as by a morbid pleasure in poisoning for its own sake, and in the sensation which her secret crimes excited. The terrible story of insanity in her family furnished the real explanation of her state of mind; she had the sad heritage of the insane temperament. She belonged, indeed,

to that group which, as we have said elsewhere,\* “might be made of those persons of unsound mental temperament, who are born with an entire absence of the moral sense, destitute of the possibility even of moral feeling; they are as truly insensible to the moral relations of life, as deficient in this regard, as a person colour-blind is to certain colours, or as one who is without ear for music is to the finest harmonies of sound. Although there is usually conjoined with the absence of moral sensibility more or less weakness of mind, it does happen, in some instances, that there is a remarkably acute intellect of the cunning type.”

When all the unsoundness discoverable in a person accused of crime is so very like that moral insensibility which, in greater or less degree, marks the criminal nature, it is no wonder that the public get alarmed and the lawyers get angry. But medicine cannot forego its enquiries or falsify their results on that account; it is a fact of observation that the insane heritage does sometimes make a person very unlike other persons, and greatly diminish his moral sensibility; the evidence is irresistible, and “it is vain to shut our eyes against truth, whatever inconvenient results may follow from admitting it.” Dr. Robertson and Dr. Maudsley, who gave evidence in this case never thought that they could say that which would obtain her acquittal; had they been asked whether they could have signed a certificate of insanity in her case they would probably have replied that they could not; but they felt it just to the unhappy woman to put the facts before the Court, and to leave them to have, as they had, their influence in preventing the execution of the extreme sentence of the law. For, as our readers are aware, the Home Secretary appointed Sir William Gull and Dr. Orange to examine her after she had been convicted, and as they, after an examination of four hours, pronounced her insane, she was reprieved, and subsequently sent to Broadmoor. While we do not agree with the “Spectator,” which has been singularly violent in its strictures on the result in this case, that if Christiana Edmunds had been a servant she would undoubtedly have been hanged, we cannot help feeling a suspicion that if she had not been a woman she would have been hanged. The Alton murderer, who, meeting a little girl one fine afternoon as he was taking a walk, carried her into a hop-garden, there killed her and

\* “Body and Mind: An enquiry into their connection and mutual influence.”  
By Henry Maudsley, M.D.

cut her body in pieces, then walked home, washing his hands in the river on the way, and made an entry in his diary, "Killed a little girl; it was fine and hot," was certainly quite as insane as she was. Besides the evidence of insanity in his father and another near relative, it was proved in his case, by the testimony of independent witnesses, that he had been unlike other persons, that he had been prone to weep often without apparent cause, that he had exhibited strange caprices of conduct, and that it had been necessary to watch him from a fear that he might commit suicide. And yet he was hanged as a brutal criminal. So was the boy Burton, whom, as we think, the evidence proved to be more insane than either the Alton murderer or Christiana Edmunds. The time has surely come when some change should be made in the mode of taking evidence and deciding upon a prisoner's state of mind when insanity is pleaded, as well as in the legal criterion of responsibility.

In what direction the required change in the law should be made, we have already indicated; the best measures to be adopted must be left for consideration on another occasion. For the Crown to request certain medical experts to examine the prisoner, and for them to be called to give their evidence for the prosecution independently of one another, would not be satisfactory; that was done in Mr. Watson's case, with this result—that Dr. Begley, who has been more than thirty years at the Hanwell Asylum, and whose length of experience was therefore unequalled, came to the conclusion that Watson was of unsound mind, and that Dr. Sheppard, who has been several years at the Colney Hatch Asylum, and had therefore also had a large experience, thought him to be sane. Under such circumstances, it is a fair question whether the Crown ought to press for a conviction without making further enquiry. The French plan of appointing a commission of scientific experts to make a joint report, would certainly be preferable, although it does not fully meet all the difficulties that will arise in a doubtful case. The prisoner could not justly be debarred by the report of such a committee from calling his own witnesses, and might fairly claim his right to cross-examine those who had made the report. In such case, unless the cross-examination of the medical witnesses was done by competent medical men, instead of, as at present, by lawyers, who, being utterly ignorant of what they are talking about, often fail entirely to elicit an exact representation of the truth, and sometimes manage to make confusion worse con-

founded, we fear that the Court would not be helped out of its difficulties. Perhaps the best plan would be to allow each side to give its evidence, as at present, and to appoint a physician of high standing and special skill to sit with the judge as assessor, and to aid him with his opinion on the scientific testimony, the facts of the crime being left entirely to judge and jury. There is yet another course which might be advocated—namely, to summon a jury consisting of a sufficient number of competent medical men, in order to decide upon the evidence as to the prisoner's mental state. But the objection to this course is that as instruction in insanity does not form a necessary part of medical education, a great many medical men know little more of its real nature and its several varieties than does the general public.

We forbear to make any comments, as we had at one time thought to do, on Mr. Baron Martin's conduct at the trial. When a judge, in summing up, addresses himself to the evidence of insanity with the improper and unseemly remark, which is furthermore untrue, "that a poor person was seldom afflicted with insanity, and it was common to raise a defence of that kind when people of means were charged with the commission of a crime," it would seem unnecessary to make a pretence of weighing the evidence. The effect on the mind of the jury must of course be decisive, for the jury weighs not the merits of an individual judge, but reverently accepts his utterances as the wisdom of the Bench. Mr. Baron Martin went on to say that on one occasion he had heard a doctor say that all mankind were mad, and laughed at the joke, but as no one in Court joined in the merriment—not even the prisoner—he properly observed that "that had little to do with the case under consideration." The result of the case, however, proves that Mr. Baron Martin had better insight and kinder feeling than he allowed to appear in his rough behaviour at the trial, and that, having done his best, in vindication of the law, to secure a conviction, he did his best afterwards, in vindication of justice, to undo the mischief which had been done.

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## OCCASIONAL NOTES OF THE QUARTER.

*Mechanical Restraint in American Asylums.*

In our last number we noticed a book entitled "Behind the Bars," which professed to give an account, from personal experience, of the internal administration of American Asylums. One statement distinctly made in that book was that mechanical restraint was often applied by attendants at their own will and pleasure, and that they habitually threatened patients with the imposition of it. In reference to this statement, we have received a letter from our distinguished honorary member, Dr. Isaac Ray, in which he says :—

My knowledge of the management of most of the hospitals in the N. England and middle States (obtained by visits extending over days and weeks), enables me to say that restraint in them is imposed only by order of an officer. My knowledge of the management of the other hospitals in those sections is derived chiefly from statements of the Superintendents in private conversation, and the debates of our Association, and these lead me to believe that the same rule is followed there. In regard to the southern and the western hospitals, I cannot speak so confidently, as I have visited but few of them, and have not had so much intercourse with their officers. I only know that when the subject has been alluded to I have never heard of any other rule, nor any question of the propriety of this. There is a fact not sufficiently considered, I think, touching this matter of restraint. A month or two ago I spent two or three days in one of the Ohio hospitals, containing some 350 patients, of whom only one was under restraint, and the Superintendent told me that there was seldom any more. Now in the best N. England hospitals, the proportion is much greater, and yet in point of attendants, both as to numbers and character, of architectural construction, and means of amusement and labour, the latter have greatly the advantage. This curious diversity has been observed by a few gentlemen who have at different times had charge of hospitals in both sections, and it is difficult to avoid the conclusion that the N. England people are endowed with an excitable temperament. That in this respect they exceed the English, German, and French, I have not the slightest doubt. And this trait has an important bearing on the subject of restraint, not only as to the extent to which it may be required, but to the degree to which toleration of personal restraint—that imposed by the hands of attendants—will be



borne by patients. Many a patient, who would resist almost unto death the imposition of hands, will quietly succumb to canvas and leather.

In the Report of the Asylum for Insane at Ontario, Dr. Landor makes some remarks on the subject of mechanical restraint, which we append. After speaking with disapprobation of "*the wire-woven cribs in which so many patients are put to sleep in nearly all the asylums in the States, and which I have never seen required by any patients that have come under my observation,*" he goes on to say:—

I have had patients rushed into the Asylum without waiting for legal forms of admission, on the ground that they had to be tied to their beds, and put into straight-jackets to prevent violence to others or to themselves; and although they are exceedingly frightened at the approach of an attendant when they first arrive here, I have never had one who has not been freed from restraint immediately, and kept free, without any harm occurring, and with great advantage, as confidence in the kind intentions of those about them was regained, of perfect quietness, and rapid improvement. I could cite many cases. One from London gaol came here with the reputation of being the most violent woman ever seen in that gaol. She was never outrageous here, from the hour of her admission, and never required to be even secluded, and when she saw that loud threatening provoked no one, she gave that up. Another came from Simcoe gaol, rushed in on the ground that she was a dreadful woman. I never saw one more frightened, but beyond an incessant restlessness of body she never was violent here. No sedatives were given to these women, and none are ever given for mere noise or destructiveness, without some other reason to justify their administration. I saw in another report the singular argument that non-restraint did not diminish to the death rate in the English Asylums, nor restraint increase it in the State Asylums. I think it would be most surprising if it did. I cannot see what either has to do with death rate any more than Tenterden steeple with the Goodwin sands; in truth, the whole matter is a question of attendants. With good ones, restraint can be avoided; with bad ones it hardly can. With insufficient numbers of attendants it certainly cannot. I am sure that it dwells on their minds both when they are recovered and when their disease recurs. Often I have been told when an acute maniac has broken a window—"There, now I suppose you will put a jacket on me, or you will give me a shower bath?" I have neither the one nor the other in the Asylum. No attendant has the means of applying such things to patients.

In regard to the representations made in "Behind the Bars," and to Dr. Ray's experience, we ought to say that we have

received from other quarters, and from authority that certainly should be reliable, positive assurance that there is not any exaggeration in the book ; on the contrary, we are told that much has been kept back which might seem incredible. We are asked, what we should think of delicate patients confined in straight-jackets, through hot summer nights, in bed, without the power of lifting a hand to drive off mosquitoes, which are plentiful enough in summer? The lady in question is said to have long undergone this torture. Our opinion is a very definite one : that, whatever may be the merits of the particular case in question, such treatment as is described is sure to occur sooner or later in any asylum in which mechanical restraint is habitually used.

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#### *Chloral Hydrate.*

We may take this opportunity of referring to the results of some enquiries by Dr. Richardson into the medical properties of chloral hydrate. He finds that the maximum quantity of the hydrate that can be borne at one dose bears some proportion to the weight of the animal, and that the human subject, weighing from 120 to 140 pounds, will be made by ninety grains to pass into deep sleep, and by one hundred and forty grains into a sleep that will be dangerous. Again, he finds that an adult person who has taken chloral hydrate in sufficient quantity to be influenced by it, gets rid of it at the rate of about seven grains per hour. In repeated doses, therefore, the hydrate might be given at the rate of twelve grains every two hours for twenty-four hours, with less danger than would occur from giving twelve times twelve (144) grains at once. Another important observation which has been made is that a reduction of the animal temperature is an early and marked effect of the chloral ; and when an animal is deeply under the influence of the agent, the temperature of the body, unless the external warmth be carefully sustained, will quickly descend seven or eight degrees below the natural standard. Such reduction of temperature, he rightly observes, is itself a source of danger ; it allows condensation of fluid on the bronchial pulmonary surface, and so induces apnœa, and it indicates a period when the convulsion of cold (a convulsion which sharply precedes death) is at hand.

The chronic symptoms of chloral poisoning are—sleepless-

ness, unless the narcotic be taken in very large doses ; great mental irritability and muscular prostration ; uncertainty of movement, with tendency to fall forward ; caprice of appetite and frequent nausea. In some cases there is injection of the conjunctivæ, and in other cases yellowness. The urine, in extreme cases, contains albumen, and the bowels are commonly constipated, the evacuations being white and hard. Chloral hydrate does not produce the ecstatic dream or delirium caused by opium or haschish ; on the contrary, it causes, through all the stages of its action, a sense rather of depression than of elevation of mental faculty.

These researches tend to prove the necessity of care in the administration of this drug. It certainly is not because a patient is quieted by it that he is necessarily benefited by it.

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### *Modern Scepticism.*

The papers of Feb. 3rd last contained two rather remarkable documents. The "Times" had a long review of a sceptical book by the Duke of Somerset ; the "Lancet" contained a report of Sir Wm. Gull's address at the Clinical Society. Both had this in common—that they were attacks on the old and established faith of the majority ; but, happily, there the resemblance ends. The odd coincidence of their appearing together suggests, however, some reflections on the altered position of "free thinking" within the last few years. Not long ago medical men were credited as a class with a tendency to unbelief, but the progress of events has left them far behind in the competition for such a distinction.

Now it is a Duke who feels a call to attack Christianity, to speak of the "educated Protestant no longer believing what the Evangelists believed and affirmed," and to assume that society is too advanced now to dream of attaching any importance to old beliefs.

Without entering into the theological questions involved, we may doubt whether the cause of truth or the interests of society are to be benefited by such an outburst. All that learning and research can do has been given to the world by men who are respected even by those who are unconvinced ; but to what purpose is an assertion that all sensible men have ceased to believe in revealed religion, and that it is only fit for "imaginative" minds ? &c., &c.

A certain number of persons, incapable of reasoning and undesirous of the labour of thinking, accept such books as truth, simply because they are heretical; but that is just the tone of mind which is so mischievous, and which is almost as fatal to the true advance of knowledge as any amount of superstitious belief.

It may not be inappropriate to call to mind the remarks of one of the greatest thinkers on the orthodox side with reference to the use of reason, viz., J. H. Newman, who in the 13th of his "University Sermons," says:—

"Where the exercise of reason much outstrips our knowledge, where knowledge is limited and reason active, where ascertained truths are scanty and courses of thought abound, there indulgence of system is unsafe and may be dangerous. *In such cases there is much need of wariness, jealousy of self, and habitual dread of presumption, paradox, and unreality, to preserve our deductions within the bounds of sobriety, and our guesses from assuming the character of discoveries.*"

The real power and greatness of mind of the writer are evidenced by the modesty of his tone and his sense of the dangers awaiting the overconfident. These are qualities but little respected by the many, who much prefer positive opinions to the ridicule and criticism so easily let loose by less careful teachers.

One turns with relief to "modern scepticism" in medical matters, as to a field where the honest exercise of doubts has earned a rich harvest. It is no question of idle speculation or display of individual vanity, but the free use of experience demolishing errors which have long had an evil influence in practice. Medical men have for centuries been the slaves of habit and conventionality, and the progress of medicine as a science has been retarded in consequence. It is the soaring free from such trammels that makes Dr. Gull's speculations of such interest, opening a new field for the energies of the profession. "Scepticism" in physic may produce positive results, and is but another name for inquiry and free exercise of reason on matters within range of our knowledge.

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#### *The Census.*

The returns of the census, though incomplete, are so far public as to be available for some statistical purposes. They are of some use as showing the rates of lunacy to the popu-

lation, and may help to explain the apparently great increase. The greatest increase in population has been in the Northern Division, where the addition has been at the rate of 22.82 per cent.; while the lowest in the list is the South-Western, where the per centage is but 2.40. The decennial increase per cent. in the eleven Registration Divisions is given as follows:—

|                  |     |     |     |       |
|------------------|-----|-----|-----|-------|
| 1. London        | ... | ... | ... | 15.97 |
| 2. South-Eastern | ... | ... | ... | 17.25 |
| 3. South-Midland | ... | ... | ... | 11.35 |
| 4. Eastern       | ... | ... | ... | 6.63  |
| 5. South-Western | ... | ... | ... | 2.40  |
| 6. West-Midland  | ... | ... | ... | 11.11 |
| 7. North-Midland | ... | ... | ..  | 9.11  |
| 8. North-Western | ... | ... | ... | 15.23 |
| 9. York          | ... | ... | ... | 18.84 |
| 10. Northern     | ... | ... | ... | 22.82 |
| 11. Welsh        | ... | ... | ... | 9.66  |

It will be thus seen that it is the agricultural counties which lag behind, and which are the exceptions to the general rule of increase; indeed, it is only the surprising activity and energy of life in the great industrial regions that make up the increase in numbers in the country, for several of the counties hardly move on. We cannot, therefore, be surprised at the increase of lunatics in Middlesex, or Lancashire, or York, when we see the great strides the population has made.

On the other hand, the poverty, both in numbers and in kind, has an influence on the lunacy of the agricultural counties. For instance, Dr. Bacon has, in his Annual Report of the Cambridge Asylum for 1871, shown that, though that county has advanced by about 10,000 since 1861, the real increase in population in the last 20 years is very small—only 958 in all. This may be called standing still in reality, and it is not wonderful to find that the relative proportion of lunatics to the population is high. Taking the eastern counties as a group—*i.e.*, Norfolk, Suffolk, Cambridgeshire, and Huntingdonshire (excluding Essex, as influenced by its proximity to London), it will be found that in Norfolk the population has *decreased* by 4,203 since 1851; that in Suffolk it has *increased* by 11,534; that in Cambs. it has *increased* by 958; and in Huntingdonshire has *decreased* by 511.

It is also remarkable and important to notice that there has been a great decline in the *male* population in three out of these four counties. Thus in Norfolk there are 4,642 *males* less than in 1851; in Cambs. 933 less; and in Hants 616 less than in 1851; while in Suffolk, where the increase is only at half the normal rate for the whole country, the males have increased to 4,256 since 1851, whereas the females amounted to 7,008—nearly double. It is clear, therefore, that the most important element in the population has declined, and this fact has a great influence on the fate of the more helpless. The infirm and lunatic are sure to remain as a greater burden, and to swell the proportion unduly. Probably the explanation is to be found in the low wages and the tendency to migrate on the part of the younger and able-bodied men, but anyhow the fact is worth notice.

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### *Homicidal Impulse.*

In the Annual Report of the Suffolk Lunatic Asylum, Dr. Kirkman mentions an event which shows how impossible it is to foretell, and how difficult to guard completely against, the desperate and suddenly rising impulses of insanity. Familiarity with the insane, under the modern humane system of treatment, tends perhaps to make us forget what a constant danger they are, and how little they are really to be depended upon.

It may be well to introduce here the notice of a patient who was admitted from a recent seizure of suicidal melancholia. It was a first attack of only six days' duration. He was placed in an associated dormitory, watched over by the head attendant, ever close to his room. As the Assistant Medical Officer, Dr. Harris, was passing through the wards at twelve o'clock at night, the man suddenly jumped up from his bed, broke through a glazed door, seized him violently by the throat, and nearly succeeded in doing him serious injury. The act was impulsive, but sufficiently alarming to un-nerve any man; and if Dr. Harris had not possessed more than ordinary presence of mind, such as it is difficult to imagine untutored attendants to possess, he might have received injuries which would have embittered his future life.

Another case of a similar nature, though attended by more terrible results, occurred early in March (1872) at the Surrey County Asylum (Tooting). A male patient, Edmund Dainty,

was employed with five others in filling the coal sacks one morning, and being left with only one of the patients for a few minutes, he murdered his unfortunate companion with a coal shovel. The coal porter was met by the patient, who said, "I have killed Mountain, sir." The patient, Dainty, voluntarily said that "something came over him, and that he was obliged to kill Mountain." Dr. Biggs said at the police inquiry that the patient was admitted into Somerset Asylum in 1869, and transferred to Surrey, and that he was the subject of dementia, and liable to occasional impulses of violence.

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## PART II.—REVIEWS.

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*The Science and Practice of Medicine.* By WILLIAM AITKEN, M.D. Edin. 6th edition. In two volumes. London: Griffin and Co., 1872.

The issue of a sixth edition of Dr. Aitken's well-known work is a sufficient testimony of the appreciation which it has received. This edition has been carefully revised, many portions have been re-written, and additions have been made which have swelled the second volume to an almost unwieldy bulk. It may be well for the author to consider whether, in the next edition, which is pretty sure to be soon called for, addition of matter may not properly be accompanied by condensation of bulk. We certainly think that a re-digestion of some of the articles, which have progressively grown by accretion, may be advantageously made. The conscientious practice adopted of giving the opinion of different authorities, with the insertion of their names in brackets, gives a jerky character to the style, and by no means improves the artistic look of an article—gives it, indeed, a scissor-and-paste appearance. Moreover, by the adoption of such a system, an article is very apt to increase in length out of proportion to its value. It is quite right, of course, that merit should be given to whom merit is due, and laudable in the author to be anxious to do so, but a few references in a foot-note, or at the end of an article, would suffice for that in most cases, an exception being made in any special case when the authority

was weighty and the statement important. At present it not seldom happens that names are given which carry no real weight, and given as sponsors for statements which are sometimes common-places of science, or certainly are not the original property of those to whom they are attributed. To quote from a manual some result of general observation, and to append in brackets the name of the author of the manual, is to carry a virtue to, if not over, the edge of a fault.

There is a great mass of information contained in these two volumes, which have been brought up to the time by the incorporation in them of the results of the latest researches. The author has introduced and adopted, so far as possible, the nomenclature of disease put forth by the College of Physicians. He even expresses a wish that the fellows of the College would adhere to that nomenclature in their published writings. For our part, we do not think it at all likely that they will, or in truth desirable that they should. As a system of nomenclature it is in some respects most defective, and, considering the amount of labour with which it was brought forth, the result has been hardly creditable to so distinguished a body as the College of Physicians. As Dr. Aitken reminds us, the term insanity has not been recognised in the new nomenclature, the subjects hitherto described under that well-known and generally accepted term being now comprehended under the general heading of "Disorders of the Intellect." Seeing that in a great number of cases of insanity, some of them of the greatest importance in a medico-legal point of view, there is no appreciable disorder of the intellect, the disorder being in feelings, sentiments, and propensities—in the affective life, we think the nomenclature of the College of Physicians displays no small ignorance of insanity. If it were accepted it would throw students of insanity back far more than half a century, and we trust that Dr. Aitken, in his next edition, will have the courage to ignore it, as is now commonly done.

We have not, of course, attempted to read through the numerous articles contained in these two big volumes, and are not in a position, therefore, to criticise them. But we have looked through some of them, and in particular the article which most nearly concerns us—that on "Disorders of the Intellect." The result has been a considerable disappointment. It is far from complete, and fails to give adequate pictures of the varieties of mental derangement. Indeed, to speak the truth, it seems to us to be an article which would



have suited the pages of the defunct "Journal of Psychological Medicine" better than it suits Dr. Aitken's pages, where we look for exact scientific description. We are sorry to speak so little favourably, but what can we say of a description of melancholia in which no mention is made of the suicidal tendency that is so often displayed? Or of a description of *moral insanity* under the head of *idiocy*? Or of a description of mania of the vaguest and most general kind, in which no mention is made of its several varieties, some of them having their special causes and courses, and demanding their special treatment? There is no reference to Dr. Skae's practical classification, which is by far the most useful to the practitioner, while there are several quotations which are mere popular clap-trap. To make the article worthy of the "Science and Practice of Medicine," we trust that Dr. Aitken may be induced to re-write it for the next edition.

Having begun this notice with a design of speaking praise, we have been seduced into fault finding. A book which has so much intrinsic value, and which has been so greatly appreciated by the profession, can well bear criticism, which may plead for itself the desire to have a good treatise made yet better.

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*A Manual of Anthropology or Science of Man, based on Modern Research.* By CHARLES BRAY, Author of "The Philosophy of Necessity," &c. Longmans and Co. 1871.

In a brief notice of this work in our last number we intimated a design to give some further account of it, but in doing so we did not sufficiently consider what we were undertaking. Mr. Bray has travelled over such a great extent of ground, and has brought together such a quantity of information from different sources, often in the form of quotations from all sorts of authors, and not in the most systematic way, that it is a hard matter for a reviewer to give a just and adequate idea of his discursive book. Its great aim, however, is to bring the study of man out of the uncertain light of fancy and speculation, metaphysical or otherwise, within the scope of scientific enquiry, and, in the pursuit of this end, large use is made of the results of modern research. We must content ourselves with giving a few quotations as

samples of the author's style and matter. Here is one which will serve to show the stand-point which he takes:—

The principle by which instincts are formed is very simple; it is but the law of hereditary descent in its most permanent form. We begin with a creature all stomach, and the simple appetite, through the instrumentality of pleasure and pain, does all the rest. We have increased effort, which is increased exercise, leading, as we have seen, to increase of size; and with "growth exceeding a certain rate," with new conditions or outer relations, we have new organs and new functions. Certain habits are acquired, and the brain "grows to" the kind of activity thus become habitual, both in intellect and feeling, and the character thus impressed is transmitted to offspring. This condition of brain is often acquired unconsciously in what has been called "unconscious cerebration." The brain grows in sleep, and acquires strength and firmness, and processes of thought, originally difficult, attain clearness, and become easier. . . . In this way man began his education, not with the race, but with the first living creature, and much of the experience he possesses has not been acquired by himself, but by previous generations.

And here is another quotation, with the sentiments of which we feel some sympathy:—

Animals live upon one another, and thus the race is kept ever young, and their numbers within the means of subsistence; and, in harmony with this necessity of their existence, they have a pleasure in killing and destroying, independently of the mere gratification of appetite. Man, requiring flesh-food, is no exception to this law. It is illustrative of the barbarous age in which we still live, that even among what are called the "upper classes," everywhere killing is still called "sport." Man never meets a fellow-creature of the orders below him, placed under his protection, to whom he is as God, than the first thought of his heart is murder. It is quite time this brute-beast part of our nature took a higher direction, and that our sympathy was with a creature's enjoyment in *its* world, and not in its destruction.

When the multitudes, who are now followers of the meek and lowly Galilean, congregate in the houses of worship, and pray that they may do unto others as they would have others do unto them, they surely forget to think how they would like the carefully preserved foxes and hares to do unto them for sport what they do unto the foxes and hares. And the ministers of their holy religion forget to rebuke them for their forgetfulness. For the sport is fashionable, and painters paint the scene of slaughter; and although Christianity did not begin as a fashionable religion, no doubt its founder, if he

lived now, would feel that times had much changed, "that they didn't know everything down in Judee," and that it would be bad taste to hurt the feelings of the scribes and pharisees. When the "Society for the Prevention of Cruelty to Animals" prosecutes publicans and sinners for cutting off the end of a dog's tail, or the ends of its ears, is it not passing strange that it has no thought to give to the animals that are hunted to death for human sport, or to the gentle pigeons that are maimed and killed as a fashionable amusement? Foxhunting and other similar sports might be defended, it is true, on the ground that the gods delight in tragedies, and make themselves sport of human sufferings, and that man, in utilizing the sufferings of the lower animals for his sport, was only doing as he was done unto, obeying therein the law which is in plain action throughout nature. But, inasmuch as he is not now living under the dispensation of the gods, but under the dispensation of God, it is questionable whether the defence will avail him on the great day when he comes up for judgment.

Mr. Bray is of opinion that—

We want a new Reformation: the old religion now "stops the way," and bars the path of progress. Priest-made law has taken the place of natural law. Impracticable, incredible dogmas have been associated with religious feeling; our veneration and reverence have been connected with certain books, and creeds, and words, and phrases, and formalities, and it is not easy to break the connection; so that religion is *altogether* an exercise of feeling, and not of the intellect—an aspiration and a prayer, and not a logical demonstration. As such it is very difficult to deal with, as it prevents inquiry, narrows the scope of the intellect, and renders error sacred.

And he surmises that—

Perhaps when the world is full, and people live longer, we shall breed only from our Queen Bees, and put to death, as the bees do, at least for such purposes, all but our finest males.

Mr. Bray is an ardent advocate of phrenology, and is rather severe in his strictures on our leading philosophers and scientific men for their want of faith in it as a system of mental science. He thinks that, considering the amount of evidence collected, their opinions on this subject will, no doubt, in after time be classed among "the hallucinations of men of genius." But Mr. Bray has other beliefs which, we fear, scientific men will think indicate that he—at any rate, in some respects—is not of little faith. He has seen a table

rise from the ground and settle again like a feather, no one touching it; he has seen people cured of nervous pains and affections by another's *silent* will at the distance of a large drawing room; he has seen also the organs of the brain brought one after another into activity by mere touch on the surface, under circumstances in which suggestion or thought-reading was impossible; and he has seen thought-reading in which a mesmerised person who could not see, yet described all that was seen by another, the mesmeriser. The numbers of three watches, consisting of five figures each, were told consecutively.

Whatever may be thought of Mr. Bray's views on these and other matters, no one who reads his books will question his earnestness, the sincerity of his convictions, and the outspoken candour with which he expresses them.

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*A Treatise on the Medical Jurisprudence of Insanity.* By J. RAY, M.D. Fifth Edition, with additions. Boston: Little, Brown, & Co. 1871.

We have received the fifth edition of Dr. Ray's valuable treatise on the Medical Jurisprudence of Insanity, the first edition of which appeared thirty-three years ago. A work which has lived and flourished during that length of time, and has been so well appreciated both in America and in this country, requires no further testimony of its worth. In the additions to the present edition the author has availed himself of some of the latest accessions to our knowledge, and so has maintained the character of his book as a standard treatise. If we were to pass any criticism upon it, we should be disposed to say that it is perhaps too much inspired of the psychological spirit of the time of Hoffbauer and Georget, and too little inspired by the positive scientific spirit of more recent investigations. The important researches of Griesinger into the relations of mental to other disorders of the nervous system, of Skae into the relations of mental to other bodily disorders, and of Morel, Moreau, and others into the hereditary connections between nervous diseases—researches which are producing a sort of revolution in our mode of looking at the varieties of mental derangement—have not received their due appreciation from the author. In fact, when we say that we have not observed any mention of the names of

these distinguished investigators, or of the work which they have done, we have said enough to shew that there is yet room for further additions and improvements in the sixth edition, which we hope the author may live to publish, and those of our readers, who are not weary of the sun, may live to see.

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*The Practice in Lunacy under Commissions and Inquisitions, with Notes of Cases and Recent Decisions; an Appendix containing Forms and Costs of Proceedings, the Statute and General Orders; also an Index and Schedule of Cases; the Fifth Edition, adapted, with considerable additions, to the Provisions of the Lunacy Regulation Acts, 1853 and 1862.*  
By JOSEPH ELMER, of the Office of the Masters in Lunacy.  
London: Stevens and Sons, 1872, pp. 487.

This is a very useful manual for all interested in the care and treatment of the so-called Chancery lunatics, and contains a mass of well arranged information regarding every detail of the practice in lunacy of the Court of Chancery. We strongly advise every member of this Association, who may have the care of Chancery lunatics, or be likely to be consulted regarding the subject of commissions in lunacy, to place a copy of this most useful compilation on his shelves. It has a complete index and a table of contents, and is, altogether, put together in a business-like manner, and reflects great credit on the legal knowledge and industry of the author.

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### PART III.—PSYCHOLOGICAL RETROSPECT.

#### *American Psychological Literature.*

By T. W. McDOWALL, M.D., Assistant Physician, Inverness District Asylum.

I. *American Journal of Insanity*, Vol. xxvii., July, 1870, to April, 1871.

This volume contains several good articles and notices of English and French books.

Vol. xxviii., July to October, 1871.

July, 1871. No. 1.—“Pathological Anatomy,” by S. Oakley Vanderpoel, A.M., M.D.; “The Physiological Action and Therapeutic Use of Chloral,” by J. B. Andrews, Assistant Physician, New York State Lunatic Asylum; “Insanity in Relation to Law,” by Henry Landor, M.D., Superintendent of London Asylum, Ontario; “In-

sanity and its Treatment; Lectures on the Treatment, Medical and Legal, of Insane Patients," by G. Fielding Blandford, M.D. Oxon., &c. BIBLIOGRAPHICAL: "Reports of Hospitals for the Insane." SUMMARY: "The Action of Neurotic Medicines in Insanity;" "The Subcutaneous Injection of Morphia in Mental Diseases;" "Epilepsy;" "Simple Acute Meningitis;" "An Act to Provide for the Safe Custody and Care of Insane Criminals, &c.;" "An Act to Authorise Judicial Inquiry as to the Sanity of Persons Indicted for Capital Offences."

October, 1871. No. 2.—"Theories of Evolution;" "Demonomania and Witchcraft," by Joseph Workman, M.D.; "Labio-Glossolaryngeal Paralysis," by E. R. Hun, M.D.; "Proceedings of the Association of Medical Superintendents." SUMMARY: "On Nosological Position of General Paralysis," by G. Mackenzie Bacon, M.D.; "An Act in Relation to the Chronic Pauper Insane."

#### *Hæmatoma Auris.*

Dr. Hun, in this paper, gives an account of his observations on the cases of this disease which occurred under his notice in the New York State Lunatic Asylum. He considers that the causes of hæmatoma are cerebral congestion and centripetal irritation of the sympathetic system by the emotions. Dr. Hun concludes his paper, which is illustrated with four photographs, by stating that the disease "is idiopathic, depending upon a pathological condition of the brain, and is incapable of being produced by external violence alone."

#### *In Re William Winter. (The Value of Expert Testimony.)*

Professor Ordranax, taking a very interesting medico-legal case for a text, preaches a useful sermon. Without entering on the merits of the case (we do not require to go to America for instances of miscarriage of justice through the mental blindness of lawyers and juries when dealing with cases of disputed sanity) we shall give a few extracts from his paper.

"It is not as generally known as it should be that the testimony of experts in any branch of science is the least fallible of all the forms of human evidence. In fact it is that one which, beyond all others, approximates most nearly to certainty of judgment, because it consists of circumstantial evidence, superadded by way of corroboration to skilled perception. To lawyers, indeed, this assertion will seem paradoxical, accustomed as they are to summon experts for the express purpose of contradicting each other. But it should be remembered at the outset that it is a rare thing for any skilled witness to contradict himself or others on an examination in chief, if precisely the same questions be put to both. Assuming that the expert testifies without bias, and that the subject under investigation is one within the range of demonstrative knowledge, all the probabilities are in favour of agreement, rather than disagreement between experts.

“Of course we cannot undertake to discuss here the vexed question of qualifications in experts. That it is a very grave one, and the pregnant source of many errors in judgment and much consequent condemnation of skilled testimony, is every day made painfully manifest. Nor, until courts shall more nearly agree in some standard of qualifications for such witnesses, can we hope to see this evil remedied. But taking the word expert to import one *skilled by experience*, we repeat that there is a logical necessity for considering such testimony as the least fallible of any. We will admit, nevertheless, that upon cross-examination experts are often *made* to contradict themselves and each other. The reason for this can be easily given, and it flows from the paradoxical position in which they stand before courts. The object of cross-examining an *ordinary* witness is to test his memory or veracity. But it is not as readily evident what the object and (if he were not called most improperly as a *witness*) where the right can be to cross-examine an expert. For *cuilibet in suâ arte perito credendum est*. Certain facts are admitted, and a professional opinion required upon them. This opinion is founded upon a special interpretation of those facts, and the skill and experience necessary for that interpretation reside exclusively in the expert. Now, to admit that a man is an expert by allowing him to testify as such, and to permit his skill to be afterwards questioned and tested by one who is not an expert, seems little else than a judicial farce.

“So long, however, as experts are called by parties litigant, this absurdity will continue to be inevitable. But the worst feature of this is, that it entails upon counsel the necessity of endeavouring to invalidate such testimony by cross-examination. Consequently, leading questions are put to experts precisely as to ordinary witnesses; propositions are laid down containing the most irrelevant premises, and courts permit counsel to insist upon categorical answers to such questions. It is not difficult to foresee the result. When one man can compel another to draw conclusions from premises already prepared for him, he becomes master of that other's opinions; and when those premises are purposely intended to entrap his judgment, and though discovered by him, he is still compelled to use them in forming his conclusions, he is doubly at the mercy of counsel,” &c. We might continue quotations from this interesting paper, but the following, on the Constitution of Commissions in Lunacy, must suffice. “It should not, therefore, require any argument to show that upon the simplest principles of analogy and justice, a Commission of Lunacy can never be a *competent* tribunal to try such an issue where one or more experts are not members of the court. Nor can we see how the presence of a jury adds aught to the competency of the tribunal, or the illumination of its investigations. Certainly, the summoning of experts is a virtual confession of the want of light by some one, and, inasmuch as the jury are to be the final triers of the issue, it is plain that it is more on their account than that of the Commissioners that experts are called. In

other words, in enlarging the court, we have diminished its competency. The conclusion which follows is inevitable. If a judge can sit in equity without a jury, and administer justice impartially, simply because he is both competent and honest, by parity of reason a Commission of Lunacy, properly constituted, can as justly, in the same way, determine an issue of insanity. Numbers by themselves can add nothing to the competency of a tribunal, where one branch of it is notoriously below the level of the other in judicial capacity. Nor, because insanity is an issue of fact can a jury of laymen decide it better than expert commissioners, or even be of any assistance to the latter in helping them to a conclusion. It is always seen that experts have to be summoned for the purpose of illuminating the minds of the jury, because, although the latter are the judges of the facts, they are not able to pass upon them until they have first been taught how to read and interpret their value. The competency of a lay jury to decide an issue of insanity is thus shown to owe its origin solely to the agency of experts. In the presence of these facts, we are forced to the conclusion that the introduction of a jury into an Inquisition of Lunacy is superfluous, and more of a hindrance than a help to the discovery of truth." An opinion with which we most heartily agree.

*Hospital and Cottage Systems for the Care of the Insane.*

Accepting as correct Dr. J. Batty Tuke's account of the treatment and condition of chronic and harmless lunatics in the village of Kennoway, Scotland, the writer reviews the various methods which have been suggested to provide for the proper care and supervision of lunatics. He objects to every method except the Asylum method as practised in America. He would limit the number of patients in one asylum to five or six hundred. "With such a field of observation, he ought, however, to be able to command sufficient leisure to record and digest his experience, and to give his profession and the public the benefit of it; instead of being confined so exclusively to his daily routine as to sacrifice such an important fruit of his labours." Most wholesome advice. But we need not quote from the paper under observation; it strongly disapproves of all methods which would presume to displace the Asylum treatment of the insane. The paper contains nothing new or likely to assist the energetic, not to say impetuous, assailants of the Out-door system as pursued at Kennoway. How astonished the patients in that quiet village would be could they understand the interest taken in them, and how well they would behave could they but believe that some people are anxious to make out that they are not fit for living outside an asylum, in which institution they would be happier, freer, and better cared for!

Nearly one hundred pages of the Journal are devoted to reporting the proceedings of the June meeting of the Association of Superintendents. The importance of affording facilities for the study and instruction in mental diseases at the medical schools formed the subject



of some conversation. Dr. Ray read a paper on "The Prognosis of Insanity," which, however, is not given in the Journal; but from the discussion which followed much useful and curious information may be obtained on the value of Bromide of Potassium in epilepsy; clitoridectomy in some forms of epilepsy, &c., &c. On prognosis in cases of puerperal insanity, Dr. White says:—"In almost all cases of puerperal mania, my prognosis has depended very much on the condition in which I find the uterus. If I find two, three, or four inches, or more of variation from the normal size, which frequently occurs after labour, I have much greater hope than where I find it restored to its normal condition, when I find it measuring three and a half or more inches. I have found the best treatment of the insanity to consist in giving remedies, and making such topical applications as will restore it to the normal condition. Sub-involution of the uterus, will, I doubt not, often be found the cause of puerperal insanity, a condition which has been frequently overlooked; and by addressing our remedies to its restoration, we consult the best interests of our patients. It is impossible to estimate the proportion of cases of puerperal mania in which hypertrophy of the uterus will be found present; but it certainly exists in a large number of cases. It is nearly useless to undertake the treatment of those cases without topical applications."

A discussion followed the reading of Dr. Barstow's paper on "Asylum Schools in Ireland." The general opinion appeared to be, that, any system which not only amused the patients but permanently benefited them, was to be preferred to that followed by some who appear to think that a constant round of amusements is the best remedy for the tedium of asylum life. It might not be practicable in all institutions to systematise the education of patients as successfully as at some asylums where French, German, &c., are taught, but no one can deny the great value of, in suitable cases, singing classes, instruction in industrial pursuits, readings, &c., &c.

Then followed a discussion on Chloral, from which we may safely draw the conclusion that this drug has not given the satisfaction which some sanguine individuals predicted of it.

Dr. John P. Gray writes on "The Dependence of Insanity on Physical Disease." He first discusses the causes of insanity, and as the result of over twenty years' observation, comes to the decided conclusion that "in those cases of which full and reliable information could be obtained, the physical cause was generally found. That some change in some part or parts of the organism preceded the earliest manifestations of mental disturbance. That in those cases, some diseased condition of the body, outside of the brain, generally preceded the cerebral symptoms and the consequent insanity." He has found that "investigation and clinical observation constantly strengthen the conviction that more careful inquiry into this subject, by a more searching examination in each case on admission, and more patient and exhaustive inquiry of friends, with more thorough record and sift-

ing of clinical facts while the patient is under treatment, would reveal, in a larger number of cases, the real operative causes inducing insanity. Such inquiry must also tend to place study and treatment on a true foundation—that is, of disease.” Cases which cannot be grouped under the head of what is usually called sympathetic insanity, are, however, due to physical causes. “While experience shows that the morbid conditions of organs and tissues more frequently act on the brain than the converse, and thus disease of special organs, and general ill-health from lowered vitality, precede and become the cause of the morbid state of the brain, ultimating in insanity; still, there are cases where the general ill health and the insanity are due to an over-worked brain, or the anxiety and prolonged tension and sleeplessness which are often the result of grief and pecuniary losses. Even here, however, the cause is physical, because insanity comes on only as a result of defective nutrition in the tissues, those of the brain included; the sleeplessness and deprivation of rest acting powerfully, not only against appetite and the simple ingestion of food, but also by wearying the nerve-tissues, and preventing ultimate cell-nutrition.” Dr. Gray passes on to the consideration of the physiology of mental phenomena; he abhors the materialistic tendencies of this present generation; he considers the brain the organ of mind, but maintains that “the mind, the spiritual principle, the immortal being, cannot be the subject of disease.” Entertaining the opinions he does, (and he strengthens his position by references to many great writers, ancient and modern), it is not surprising that he has no sympathy with those “to whom faith is not given to believe more than they can see and understand, or who do not choose to believe more, and to whom mind and all mental phenomena are mere physical results; mental manifestations of whatever order, hopes, fears, joys, sorrows, immortal longings, deep affections, are, like hunger and thirst and pain, but expressions of a physical organization; the restless mind of man, instead of being all we believe of it, an immortal spirit, manifesting itself in this life and in this body, preparing for a life to come, and using the brain as an organ or instrument for its purposes, is a mere secretion of the brain, depending on its existence, and sickening and dying with it,” and so on. In concluding this paper Dr. Gray arranges the results of experience as follows:—

1st. Disease of any part of the organism may be the pathologic cause of insanity.

2nd. In such cases insanity is not manifested until the brain is actually involved.

3rd. Disease of the brain or its membranes may be the primary exciting cause of insanity, and other parts of the organism subsequently become affected.

4th. Insanity more frequently has its primary origin in pathologic states outside the brain, than in primary diseases of the brain.

5th. There are physical symptoms and signs of brain diseases, which

experience has enabled us to recognise as pathognostic of certain brain changes, by knowledge of which we are able to anticipate and understand the progress of cerebral disease.

The following are considered the subjects calling for future consideration :—

1st. Whether there are specific changes in the brain in insanity, and if so, whether there are any means of ascertaining positively or proximately what those changes are ?

2nd. Are there physical signs and symptoms indicating the presence and progress of such changes, which may be detected and relied upon, and what these are ?

3rd. Are there *post-mortem* appearances in the brains of those who die insane, which would justify the assumption that morbid cerebral changes were the potential and only ultimate causation of insanity ?

4th. Are there any sound reasons for the assumption that the mind can overthrow itself independent of cerebral changes ?

5th. Do the secretions of the skin, kidneys, &c., throw any light upon the morbid condition of the brain in insanity, either regarding the pathologic state, its nutrition, or action ?

#### *The Physiological Action and Therapeutic Use of Chloral.*

In the paper by Dr. J. B. Andrews, Assistant Physician, New York State Lunatic Asylum, we have the results of much observation ; it also contains the opinions of the leading American and European physicians who have written on the subject. The drug was administered in doses varying from 10 to 120 grains ; the latter dose having been given with good effect in a case of profound melancholia. In some cases of mania and melancholia the drug, in 20-60 grs. doses, was given nightly for protracted periods, from 105 to 257 days. Dr. Andrews appears to have been much pleased with the drug.

“In cases of insanity, of either an acute or chronic character, the great value of the remedy is as a hypnotic. In the result, when used for this purpose, we are rarely disappointed. Patients who would otherwise be out of bed and noisy at night, to their own injury and the disturbance of a ward, are usually quieted and kept in bed, and at last put to sleep by a dose of chloral timely administered. The great advantage to be derived from a remedy of this character can nowhere be more fully appreciated than in an institution for the insane. It is also administered during the day in smaller doses to act upon the motor nervous system, and as an ordinary nervous sedative.” From February, 1860, to the time of the paper being written, 90 lbs. of chloral were used in the New York State Lunatic Asylum. The *advantages* of chloral are said to be :—it is a hypnotic which seldom fails to produce sleep, which usually lasts from four to eight hours. The sleep is natural, and one from which the patient can be easily aroused. It is more generally tolerated by the stomach than other sedatives. It does not constipate the bowels or disturb the secretions. It does

not injuriously affect the appetite. It rarely produces headache or leaves unpleasant effects. It does not lose its power by repetition, but the dose may often be reduced after the patient has become accustomed to its use, and seldom demands to be increased. When the necessity for its use has ceased, it often, for the first time, becomes disagreeable to the patient. Thus far we have met with no case where its administration has induced the habit of its use, which is one of the dangers of opium, cannabis Indica, &c. It allays muscular spasm and rigidity. No ill effects have been experienced from its use in cases of disease of the brain. We have observed no ill effects from its use in the reduction of the pulse or of the temperature. In cases of the opium habit, it has proved a valuable remedy to secure quiet and sleep, and allay nervous irritation, until the system has rallied from the depressing influence of the former drug. In insanity it is particularly useful to quiet restlessness and muscular activity. The strength of the patient is thus preserved, and time is gained for building up the general health by tonics and nutritious diet.

The *ill effects* of chloral observed were—"In some instances it has induced nausea and vomiting. Unless largely diluted it produces a burning sensation in the fauces and stomach. In many cases its influence is very rapid, the person falling asleep at once, which sometimes gives alarm to those unused to it." To these, from experience in this country, might be added—death from the administration of doses not approaching the magnitude of some given by Dr. Andrews; he notices a number of these and asks, "What medicine can be named which has been used so extensively, which allows of such variable limits in dose, and which has passed into common use, even in the hands of nostrum vendors, and against which so small a list of casualties can be adduced?"

In Dr. Landor's paper on "Insanity in Relation to Law," we have a full review of the vexed questions, so much discussed at present, connected with the evidence of medical experts called in cases of insanity. It is really to be hoped that some better understanding will at last be come to by the medical and legal authorities: one only requires to look over the cases given by Dr. Landor to see the enormous evils which have their origin in the peculiar views entertained by the legal mind on all matters connected with insanity. Accepting Dr. Combe's as the happiest definition of insanity yet propounded, the writer proceeds:—"If the principle on which this definition is founded is the right one, and that it is essential to institute a thorough examination of the individual's past and present condition before determining his state of mind, then the definition and proceedings of lawyers are in complete antagonism to this and to truth. There can be no antagonism between principles more complete. Medicine declares that insanity is a physical and corporeal disease; Law that it is not. Medicine says that imbecility and insanity are different conditions; Law that they are identical. Medicine asserts that a theoretical study of mental diseases

and defects is necessary to a proper understanding of such diseases and defects; Law denies this, and says that insanity is a fact to be determined by any dozen of ordinary men in consultation on the case selected at random from any class of the population. Medicine says that a man may be insane and irresponsible, and yet know right from wrong; Law says that a knowledge of right and wrong is the test both of soundness of mind and of responsibility to the law. Medicine says restrain and cure the insane and imbecile sufferer. The object of the action of the law is punishment, and if its severity is mitigated, it is not by the law, but by the suspension of the law, by authority above the law. The Law is thus entirely antagonistic to Medicine on all those questions of mental science which involve the freedom and well-being of the imbecile and the insane, and which often determine whether they shall be put to an ignominious death or not, whether they shall be deprived of their property or suffered to retain it. This antagonism is, therefore, a most serious matter to the insane, their friends and families, not less serious to Judges and Legislators, and of the deepest interest to both medical and legal professions. For with such opinions inculcated by the law, existing ignorances are more deeply rooted in the public mind, so that the difficulty in treating the insane by medical men, and in giving testimony in Courts, is greatly increased; especially when great Judges remark (influenced, no doubt, by the degrading exhibition of opposing bitterness of medical men in Courts), 'that the introduction of medical opinions and theories on this subject has proceeded from the vicious principle of considering insanity a disease, whereas it is a fact to be ascertained by evidence, in like manner as any other fact, and no more is necessary than to try the question by proof of the habits, the demeanour, conversation and acts of the alleged lunatic.'

It must be very gratifying to Dr. G. Fielding Blandford that his recent work on "Insanity and its Treatment" has been as cordially welcomed in America as it has been in this country. It is reviewed at length in the "Journal of Insanity" for July, 1871; and the following favourable opinion is expressed thereon:—"Notwithstanding the modesty of the claims set up by our author in his preface, we doubt if any treatise which has appeared of late will be found more satisfactory, even to the professed alienist, than Dr. Blandford's book; and we are quite certain that none can be more highly commended as a text book to the student of psychology, or those outside the medical profession, to whom a knowledge of the subjects discussed is sometimes necessary."

Anyone interested in the subject of diabolic possession may read Dr. Joseph Workman's paper on "Demonomania and Witchcraft:" he will there find a few of the leading facts connected with the history of witchcraft in this country and on the Continent. This paper is followed by one by Dr. Hun, in which is given the history of a case of labio-glosso-laryngeal paralysis. A careful microscopical examination

of brain and spinal cord was made, and the results so detailed are exceedingly interesting.

The June meeting (1871) of the Association of Medical Superintendents appears, from the report of the proceedings, to have been one of great interest. In the discussion which followed the reading of Dr. Landor's paper, the subject of recovered criminal lunatics cropped up. Dr. Workman and Dr. Kirkbride expressed very decided opinions on the undesirability of releasing recovered patients who, during attacks of insanity, have committed homicide. The latter gentleman remarked:—"I have always believed that, except under very extraordinary circumstances, a person who has taken life in a state of insanity and been acquitted on that ground, ought not to be released. The exceptional cases are just what Dr. Workman has mentioned (homicide during acute mania). It does often seem hard for the particular individual; but it would be still worse to have others, who had committed no crime, exposed to a similar occurrence. Let every such case be treated with the utmost gentleness and consideration; but let those who have committed no offence be properly protected. In Pennsylvania, only a few years since, it was not uncommon to have a man acquitted on charges like these, on the ground of insanity, and to see him in the streets in a few days without there having been any pretence of his having been subjected to treatment, or, indeed, of being restrained of his liberty. The present law, based on the recommendations of this Association, is a wonderful improvement, and the scenes we used to witness, and which rendered many of these judicial proceedings little more than a farce, can hardly, hereafter, be possible."

The attention of the Association was then occupied with Dr. Ray's paper on the "Evidence of Experts;" and a paper by Dr. Wilbur on the "Moral Causes of Insanity," opposing the opinions of Dr. Gray as expressed in his paper on the "Dependence of Insanity on Physical Causes," and which has already been noticed in this summary, led to a partial rediscussion of some points in mental physiology. On the subject of Statistical Tables, the general opinion appeared to be that it was possible to attach too much importance to statistics, which were, especially in medical matters, an imperfect and often misleading method by which to attempt to express the results of clinical and pathological experience. It was, however, resolved to recommend the adoption of the twenty tables as drawn up by the Committee on Statistical Tables; the value of uniformity in such matters being very properly recognised. The last matter of importance brought before the Association was the Proper Provision for the Insane. The old topics of asylum construction and management; the boarding-out system; the treatment of recent cases in private houses, &c., were turned over; but it would be useless to attempt to give a condensed account of this discussion, beyond saying that it appeared much easier for the speakers to point out faults and difficulties in existing systems, than to suggest improvements thereon.

II. *The Journal of Psychological Medicine*, Vol. iv. July to October, 1870.; and Vol. v. January to October, 1871.

*A Medico-Legal Study in the Case of Daniel McFarland.*

The facts of this interesting case of homicidal impulse as given by Dr. Hammond, are these :—On the 25th of November, 1869, at about five o'clock in the afternoon, the accused was standing at the end of a counter in the office of the "Tribune," in this city. A few minutes previously he had been writing at a desk. While standing, as above stated, Albert D. Richardson entered the office, crossed it, and went to a desk at the end of the counter near where the accused stood. The counter was between the parties. The accused, distant about four feet, drew a pistol and fired at Richardson, wounding him in the abdomen. Death ensued on 2nd of December. Immediately after the shooting, the accused left the office without molestation, and proceeding to the Westmoreland Hotel, at the corner of Fourth Avenue and Seventeenth street, registered his name in full, and had a room assigned to him. A few hours afterwards he was arrested. It is in the evidence, that the accused, who was a married man, was devotedly and passionately attached to his family; that he had intercepted a letter from the deceased to his wife, which was calculated from its sentiments to arouse the most powerful emotions in the human mind; that his wife had left him, taking with her both the children; that he had instituted legal proceedings to obtain the possession of his offspring; that he was opposed by his wife and the deceased, the latter supplying the funds for the resistance of the father's efforts; that these troubles partially unsettled his reason, so that several persons who knew him, and were thrown into contact with him, remarked that he was incoherent, rambling, excited, and the thought of his domestic difficulties was almost continually present, as shown by his conversation and actions; that he was unable to sleep; that he wandered through the streets at night in all kinds of weather, talking of his troubles to policemen and others; that he could not, by reason of his mental condition, perform properly the duties of the office he held under the Government of the United States; that various powerful medicines, such as morphia, Indian hemp, hyoscyamus, and bromide of potassium had been prescribed for him in large doses by his medical attendants; that for several days previous to the homicide he had taken large quantities of morphia; that during this period, and even before, his pulse was never below 104 per minute, and was frequently much more rapid; that his face was flushed, that there was involuntary twitching of the facial muscles; that his eyes were suffused and his pupils contracted; that he had flashes of light and dark specks before his eyes; that he suffered from vertigo; that his head was painful and hot; that he had frequent outbursts of excitement; that he had hallucinations and delusions; that he had doubts as to his identity; that he had threatened to commit suicide; that his memory was impaired; that while in this con-

dition he had heard that a divorce had been granted to his wife in the State of Indiana, on *ex-parte* statements; that the symptoms of mental disorder then became greatly aggravated; and that on the afternoon of the homicide he was met in the street by a friend who remarked his wild expression, and who was convinced that he was not in his right mind. It is also in evidence that a first-cousin of the accused died insane." In this case the jury returned a verdict of not guilty; and Dr. Hammond congratulates himself that in this instance the ends of justice were promoted by the evidence of the medical experts called in the defence. Anyone interested in the subject of homicidal impulse is referred to Dr. Hammond's interesting remarks thereon.

*Observations on the Physiological and Therapeutical Effects of Galvanization of the Sympathetic Nerve.*

Without attempting to condense the account of the experiments performed on the ganglia of the cervical sympathetic, we must content ourselves by giving the results attained by Drs. Rockwell and Beard. These gentlemen found the physiological effects to be:—

1. A slight feeling of drowsiness; but this was by no means always observed. In order to determine the effect of galvanization of the cervical sympathetic on the cerebral circulation, ophthalmoscopic examinations were made just before, during, and about five minutes succeeding the applications; and it was observed that the arteries of the retina increased in size and became more numerous during the passing of the current. In about five minutes after the applications had ceased, a marked decrease was observed in the size and number of the arteries; but further observations are necessary.
2. Decided vertigo, together with a feeling of warmth throughout the system.
3. A very marked effect upon the pulse. On this subject they believe their results may be arranged as follows:—"First, when the pulse was in a normal condition for the age and temperament, the effect of the application was less marked than when it was either above or below the natural beat. Secondly, when it was below the normal, it was usually raised a number of beats. Thirdly, when it was above the normal standard it was usually reduced, and the extent of this reduction was, as a rule, in proportion to the height of the acceleration." The pulse also became changed in its character.
4. Slight dilatation and contraction of the pupil.

Drs. Rockwell and Beard consider the following to be the indications for such treatment:—

1. Cases in which the sympathetic is itself diseased.
2. Cases in which the sympathetic is in a condition of abnormal irritability, as in hysteria, locomotor ataxy, muscular atrophy, &c.
3. Cerebral hyperæmia, which is associated with a large number of diseases.
4. Disorders of the vaso-motor nerves.
5. Functional diseases of the digestive and genital apparatus.



*Notes on Ecstasy and other Dramatic Disorders of the Nervous System.*

Dr. Clymer indicates the scope of his paper by saying:—"My attention having been called to the subject by reading the recently published account of the 'Ecstatic of Bois d'Haine,' I shall in this paper give a short account of this extraordinary and well-attested case, adding to it several other authentic instances of a like state, analyse their characteristic phenomena, show the kinship or connection between them and other emotional disorders, and endeavour to ascertain the conditions of the nervous system under which they happen. The subject is one of large extent, but it is not my purpose at this time to do more than study some of its chief points." It is impossible to consider minutely at present this exceedingly interesting paper, but we must be content to give an abstract of the case already referred to—the "Ecstatic of Bois d'Haine." The patient, Louise Lateau, was born in the department of Hainault, in Belgium, on January 30, 1850. She is the youngest of three children, all daughters; her family history is good, her parents having been free from any nervous or hæmorrhagic disorder. At eighteen years of age, the patient is described "as slightly below the middle height, of a not very stout frame, full face, with some colour, a delicate clear skin, light hair, soft, clear blue eyes, small mouth, very white and well-formed teeth, and a pleasant intelligent countenance. Her health is good, and she is free from any scrofulous or other diathetic taint." Her health began to give way in the beginning of 1867, and she became chlorotic. After an attack of quinsy in September, she became very anæmic, and subject to frequent attacks of neuralgia, chiefly of the scalp. Between March 29th and April 15th, she had several blood-spittings, but the source of the hæmorrhage is not stated; she was reduced to a state of great exhaustion through injudicious treatment, but again rapidly recovered. On the 19th April, the catamenia appeared; since then that function has been quite natural. Mentally the patient is described as of good understanding, unemotional and unimaginary, blessed with common sense, artless, straightforward, without enthusiasm, and very reserved. At home she suffered patiently from the unreasonable temper of her mother; unusually devout from childhood, "her piety was always of a practical kind, free from affectation or display; her religious life, like her domestic, being simple, earnest, and direct."

"On Friday, April 24, 1868, Louise Lateau first noticed blood on the left side of her chest, immediately below the mamma. She said nothing about it to anyone. The following Friday, she again remarked it on the same spot, and also on the top of the left foot. She now told her confessor, who reassured her, and directed her not to speak of the circumstance. Early on the morning of the third Friday, May 8th, blood began to ooze from the left side and both feet, and towards nine o'clock, flowed freely from the palms and backs of

the hands. Finally, on the 28th September, the forehead became also bedewed with blood." The bleedings have recurred regularly up to April 15th, 1870, the date of the last report. "On the 17th of July, 1868, she fell into the first fit of confirmed ecstasy, and regularly every Friday afterwards, at about the same hour, the fit has occurred, with unerring regularity, happening soon after the several bleedings have appeared, and while the subject is engaged in meditation and prayer; though they have come on while she was in the midst of conversation upon indifferent matters, or occasionally while at work. On Friday mornings the state of her hands rendering her ordinary duties impossible, Louise is accustomed to pass the time in prayer. Sitting quietly in a chair, the bleeding hands covered with cloths, her eyes suddenly become fixed and turned upwards. This marks the invasion. 'It is half-past four in the morning,' writes the reporter; 'we have been talking on common topics, about her health, education, occupations; to all my questions her answers have been simple, precise, and laconic; her appearance is natural and tranquil, the colour of the face good, the skin cool, and the pulse-rate 72. After a while, I notice that she answers more slowly, and finally not at all. She has become perfectly immoveable, with her eyes wide open, but fixed and turned upwards, and a little towards the right. The ecstatic state has begun.' On one occasion (August 13, 1869), in the presence of Mgr. d'Herbomez, the Roman Catholic Bishop of British Columbia, while at work on her sewing-machine, with evidently much suffering and effort, the blood oozing from the stigmata on her hands, feet, and forehead, and trickling down her temples, cheeks, and neck, covering the machine, it suddenly stopped, for she had passed into the fit. This kind of onset has happened several times.

"Once established, the course of the attack is described as follows: The girl is sitting in a chair, the body slightly bent forward and perfectly immoveable, the hands resting on the knees, the eyeballs as described, and the expression of the face that of rapt attention, she seeming lost in the contemplation of some object in the distance. Her physiognomy during the seizure frequently changes; sometimes the features become quite relaxed, the eyes are moist, the mouth half open and smiling; again, the lids will droop, and partly veil the globes, the face contracts, and tears run down the cheeks; at times she grows pale, and there is a look of terror, accompanied by starts and suppressed cries. The trunk sometimes semi-rotates on its axis, and the eyes accompany the movement, as if following some passing object. She rises from her chair, moves forward several steps, standing on tiptoe, the hands raised, and either clasped or open, like those of the Orantes of the Catacombs; the lips move, the breathing is short, the features are animated and full of emotion, and a face, which ordinarily is quite commonplace, becomes really beautiful.

"At half-past one in the afternoon she falls on her knees, the hands joined, and the body bent very much forward. The expression of the

countenance is now that of the profoundest contemplation. In this position she remains about half an hour, and then resumes her seat. Towards two o'clock she begins to lean slightly forward again, and immediately rises, at first slowly, then more quickly, and finally, as if by some sudden movement of projection, she falls to the ground. In this position, lying on her chest, the right arm is under the head, the eyes are shut, the mouth half open, and the lower limbs completely extended. At three o'clock she makes a sudden movement; the arms are thrown out at right angles with the body, the feet are brought together and crossed, the sole of the left foot lying on the back of the right. This posture is maintained until five o'clock, when she starts up on her knees with a bound, and assumes the attitude of one in prayer. After a few minutes of total absorption, she sits down in her chair and remains for a while perfectly still. Between six and seven, the arms fall and hang heavily by the side of the body, the head drops on the chest, the eyes are closed, the nose becomes pinched, and the face gets very pale, the hands are icy, and a cold sweat breaks out over the whole body; the pulse is imperceptible, and there is rattling in the throat. This state lasts for some fifteen minutes, when the pulse returns, the body-heat rises, colour comes into the cheeks, but there is still a peculiar indefinable expression of the face. In a little time the eyes open, one object after another is looked at and recognized, the features relax, and the ecstasy spell is over." Such are the leading features of this interesting case; it is, however, impossible to enter into further detail, but all interested in that wonderful class of patients, the "Stigmatisés," are referred to Dr. Clymer's paper.

Undeterred by the failure of all who have previously attempted to give a definition of insanity, Dr. Lee gives the following, and considers it sufficiently accurate for all practical purposes:—"Insanity is a chronic disease of the brain, producing either derangement of the intellectual faculties, or a prolonged change of the feelings, affections, and habits, or both—its form depending on constitution, temperament, and various accidental circumstances—but, in all cases, perverting or destroying the freedom of the will." Dr. Lee proceeds to consider the mental condition of Carlton Gates, an interesting case in a medico-legal point of view. He reproduces from Edmonds ("Select Cases," vol. i., p. 35), the following definition of a *sane man*. He is one—

1. Whose senses bear truthful evidence.
2. Whose understanding is capable of receiving that evidence.
3. Whose reason can draw proper conclusions from the truthful evidence thus received.
4. Who can guide the thought thus obtained.
5. Whose moral sense can tell the right and wrong growing out of that thought.
6. And whose act can, at his own pleasure, be in conformity with the action of all these qualities. If we are to believe that "all these

unite to constitute *sanity*; that the absence of any one of them makes insanity," we can scarcely avoid the conclusion that we are all more or less insane—a most impotent conclusion, and one which would justly give the enemy cause to blaspheme.

The papers in the January number of "The Journal of Psychological Medicine," scarcely call for special notice at present. Professor Hammond's Clinical Lectures included the following subjects:—

Lecture I.—Partial Cerebral Anæmia, the Result of Thrombosis and Embolism. Lecture II.—Alternate or Cross Hemiplegia. Case in which there was probable Extravasation into the Pons Varolii. Lecture III.—Congestion of the Spinal Cord. Chronic Inflammation of the Spinal Cord. Reflex Paralysis. Lecture IV.—Lead-paralysis. Chorea.

Dr. Day's "Letters" contain, in a pleasant form, an account of recent contributions to Mental Science and Anthropology; and as he principally deals with these subjects as they have occupied attention in Great Britain, it is really unnecessary to direct further notice to them; indeed, several of the papers to which he refers have already appeared in the pages of this journal.

Passing over the paper by the Hon. R. C. Hutchings, concerning a will made by a general paralytic, and disputed by his widow, we may glance at a communication on "The Medical Relations of Insanity," by Dr. Tourtellot. After noticing such subjects as clinical instruction in lunacy, the vague and inaccurate ideas which prevail in the popular mind concerning insanity, he exercises himself concerning a definition of this disease. Dr. Tourtellot's remarks concerning the medical treatment of those suffering from mental diseases will probably surprise many in this country. "But the errors in the therapeutics of our asylums, reflecting the errors of doctrine which I have described, are also of serious importance. The notion that insanity is bodily disease would seem to have led to the practical rule that all the insane need medical treatment. How far this unnecessary inference from a doctrine which is itself a fallacy has been carried, may be gathered from the various asylum reports.

"In treating of medication in the Massachusetts' asylums," the Board of Charities of that State speak of "the guilt of wasting human treasure and poisoning human blood by the use of noxious drugs," as, in the case of the helpless insane, chargeable wholly upon those who prescribe them. This is extravagant language, for, as compared with some others, these asylums are quite moderate in their use of medicines. In the report of an asylum in a neighbouring State, I find its doctrine, that "insanity is one of the most curable of nervous-diseases," illustrated, on another page, by the fact that the value of medicines given to an average of less than 650 patients in one year was 6,000 dollars. Yet it is true, as stated by the Massachusetts' Board, that "the most enlightened physicians had nearly abandoned the use of drugs in the treatment of the insane." Maudsley barely alludes to

the medical treatment of mental disorders, in his work; and Griesinger warns his readers, repeatedly, against what he terms "vulgar therapeutic illusions." The latter scouts, especially, the experiments with phosphorus and other agents to "vivify" the brain, and declares that "alcoholics are to be wholly condemned in the treatment of the insane. We can hardly suppose that experiments with chloral and the bromides upon this class, to the extent now practised, would have met his approval." With these views many in this country cannot agree; indeed, they are contrary to the whole spirit of modern enquiry; but it is probable that some of Dr. Tourtellot's remarks concerning the proper class of cases for asylum treatment will gain more general approval. In answer to the question, "What is a medical diagnosis of insanity?" the writer contends that only mental phenomena should be taken into consideration. As this subject is really of much importance, the following extract may be of interest:—"But a large class of medical writers hold that physical symptoms have an important place in the diagnosis of insanity. The celebrated Dr. Falret even declares that 'a mental disease is denoted by physical symptoms, by manifold psychical symptoms, and by a definite order in their succession.' Now, this is not only contrary to settled medical principles, but it is plainly calculated to render a medical diagnosis more difficult. If we are often at a loss how to classify a case when our categories are made up of mental symptoms alone, it must be nearly impossible to do so when they consist of a double series of symptoms, bodily and mental, and a special history. It is admitted, indeed, by Dr. Falret, that such categories are yet far from being established to meet all cases. He only hopes that this may be done in some not distant future. Meanwhile, as to those cases which cannot be placed in categories now formed, a diagnosis cannot be made. Generally, however, these writers do not seek to form a legitimate medical diagnosis. They are content to speak of both bodily and mental symptoms as affording proofs of insanity, which is for them a condition of irresponsibility due to disease. I have before said that Dr. Ray, perhaps the most widely-known American authority, speaks of these symptoms together as facts of nature, and compares conclusions drawn from them to those from sensible facts. It should be noted, however, that in his philosophy the mental and the physical belong to the same order of phenomena. Dr. Nichols, of Washington, also a well-known expert, rests his medico-legal diagnosis upon both physical and mental symptoms, considered as distinct categories. Of the former class he designated, in the case of Mary Harris, emaciation, frequent pulse, and insensibility to cold. Another distinguished expert in this country has lately given to physical signs the highest importance in his diagnosis. I refer to Dr. Hammond, of New York, by whom the *æsthesiometer*, the *dynamograph*, and the *sphygmograph*, were used to test the insanity of McFarland. I could name many other authorities, who, however else they may differ, agree in making their diagnosis one of irresponsibility rather than of disease,

while yet founding it, in great part, upon the bodily symptoms. The first effect of this incongruous scheme is to lead the witness out of his proper sphere of medicine, and place him in opposition to legal doctrines. And here he is unable to explain the first step of the process by which a series of symptoms, mental or bodily, or both, is made to prove a loss of moral freedom. The attempt to do this has never failed, I believe, to illustrate a very common fallacy in reasoning; however disguised, the argument finally resolves itself into this: Insanity is a disease. Insanity is also irresponsibility. Therefore, disease is irresponsibility. It is, in fact, this convenient use of the word disease, which has tempted medical experts to base their diagnosis of insanity in part upon bodily symptoms. That, like insanity, it is a term representing neither a real existence nor a definite idea, and that, meaning only a bodily disorder, a sense both technically and practically false has been forced upon it, I have already shown. Let me conclude, then, by inquiring what are the nature and true value of expert testimony where it assumes to decide the question of responsibility."

*The Medico-Legal Value of Confession as an Evidence of Guilt.*

Professor Hammond very justly condemns the very common opinion that the confession of an individual accused of an offence is the very best evidence which can be adduced of guilt, and maintains that confession, unsupported by collateral evidence, is very unreliable testimony. He specially refers to the very extraordinary case of Constance Kent, who accused herself of having murdered her brother nearly five years after the child had been found dead under very peculiar and mysterious circumstances. Without entering into the question of the guilt or innocence of this young woman, Professor Hammond considers her criminality not satisfactorily established by her confession. The following is a very good instance of self-accusation, the individual being apparently overcome with a morbid desire for notoriety:—"A few months ago I [Dr. Hammond] was requested by Colonel Whitely, the chief detective officer of the Government, to visit in the Tombs prison a man who had confessed himself to be a member of a gang of counterfeiters. This individual had written a letter to the Secretary of the Treasury, in which he detailed, in the most consistent and minute manner, the organisation of the band, and as members of which he gave the names of the most eminent and respectable citizens of the United States, of both political parties; his statements were believed, and Colonel Whitely was directed to investigate the whole affair with the utmost secrecy and completeness. Colonel Whitely, with the perspicuity for which he is noted, soon had his suspicions excited that the man's story was a fabrication. Nevertheless the evidence the fellow had sent to Washington, was so far credited, that it was under consideration whether or not the alleged members of the band, embracing governors of States, senators, representatives, high officers of the army, and others, should be arrested. At this juncture Colonel Whitely

requested me to examine the man. I found him perfectly coherent, but wavering and contradictory in his statements. Examination of the skull showed that he had received a wound from a musket-ball, and this, with the facts that he did not sleep, that he had cerebral congestion, and was evidently labouring under a delusion, convinced me that he was a fitter subject for a lunatic asylum on Blackwell's Island than for a prison, and I accordingly had him sent there. In this case a desire for notoriety and the self-inflation resulting from the association of his name with others of exalted station had been the primary force of his action, and had eventually rendered him insane."

In a paper read before the New York Medico-Legal Society, Dr. O'Dea reviews "The Sphere, Rights, and Obligations of Medical Experts," and it may be truly said that, did medical witnesses consider the excellent advice therein contained, we should be frequently saved the painful spectacle of members of the profession making fools of themselves in courts of law. He insists on the necessity of approaching any medico-legal case with minds free from prejudice, and of observing and examining the facts in their true light. That he may be able to do so the witness is advised to follow the rules taught by Descartes; these are the following:—

1. "Never to accept anything for true which you do not already know to be such; that is to say, carefully avoid precipitancy and prejudice, and comprise nothing more in your judgment than what is presented to your mind so clearly and distinctly as to exclude all ground of doubt.

2. "Divide each of the difficulties under examination into as many parts as possible, and as might be necessary for its adequate solution.

3. "Conduct your thoughts in such order that, by commencing with objects the simplest and easiest to know, you may ascend by little and little, and, as it were, step by step, to the knowledge of the more complex; assigning in thought a certain order even to those objects which, in their own nature, do not stand in a relation of antecedent and sequence."

Professor Hammond's Clinical Lecture (V.) on Aphasia has called forth a paper from Prof. Dickson, Jefferson Medical College, in which he combats the following propositions of the former gentleman:—(1) that there exists a special faculty of speech or language; (2) that it has a special part of the brain appropriated to it as its organ; and (3) that the location of this organ has been discovered and so clearly made out that we may look upon it as one of the established facts of physiology that the seat of the intellectual power of "expressing ideas by language" resides in "the posterior part of the third convolution of the anterior lobe of the left side . . . in the immediate vicinity of the fissure of Sylvius, in that region nourished by the middle cerebral artery." Dr. Hammond's sixth lecture is devoted to the consideration of facial paralysis; and lecture vii. treats of Glosso-laryngeal Paralysis.

## PART IV.—NOTES AND NEWS.

## FIRE AT THE CAMBRIDGESHIRE ASYLUM.

A rather serious fire broke out at the Fulbourn Lunatic Asylum on March 12th, 1872. The fire is supposed to have originated from some defect in a flue which led from the basement through the centre of the house. In the basement are some boilers, and a steam engine. In the upper storey the flue passed through a sort of lumber room, in which were stored sundry boxes and inflammable material. The fire was discovered about 5:30 p.m., just as the workmen were leaving, and they were attracted by the smoke and returned to the Asylum. Owing to this fact an ample supply of water was soon available, and the men who knew the building exerted themselves actively in the best way to prevent the spread of the flames. By these means the fire was limited to the chapel and a room above, in the centre of the Asylum. The chapel and a room above are completely destroyed, and sundry adjacent rooms and portions of the roof are injured. The patients and attendants worked with the utmost zeal and energy, and soon reduced the fire. The damage is estimated at about £700. Had it not been for the speedy aid afforded, and for some other favourable accidents, a great part of the asylum would probably have been destroyed. We hear that offers of assistance were telegraphed from the Three Counties and Sussex Asylums next day. Luckily the patients were but little incommoded. It is fortunate the results were no worse.

*The Editor of the Journal of Mental Science.*

Hanwell, March 3rd, 1872.

DEAR SIR,—It occurs to me that the case I cited in my letter to the Solicitor to the Treasury,\* impugning the correctness of the opinion expressed by some of the witnesses at the trial of the Rev. Mr. Watson, "that the insane do not disclose their intention of committing suicide, but on the contrary, carefully conceal it," may be considered an exceptional one, and so taken to prove the accuracy of the allegation. Although I guarded against such an assumption by stating in the onset that I knew of *several cases* in which the insane did announce their determination to commit suicide, perhaps it may be well to anticipate the objection I name by quoting briefly some of the cases. *One patient*, interpreting literally the words, "if thy right eye offend thee pluck it out and cast it from thee," actually attempted this, and openly declared his determination to destroy himself, which he ultimately effected by hanging, after failure in other ways. *Another*, believing himself to be in a state of reprobation, expressed a strong desire to go to the other world to see what his condition would be there, asked to be put out of his misery, and declared his intention of destroying himself at the first opportunity. I saw this man alone one morning, pacing a large dormitory in a disconsolate state, took him to the day-room, placed him in the care of an attendant, charging the man not to leave him; the attendant left the patient for a few minutes, and on return could not find him. Search was made in several places, the dock and canal were dragged; in a few hours the body was found hanging dead in a disused cellar, left open by workmen engaged in enlarging the asylum. *Another*, fairly educated, the son of a successful tradesman, disliking business, and disappointed at his father's refusal to purchase a commission for him in the army, enlisted, grew tired of the life of a private, was bought out of the regiment, engaged in betting at races and gambling, drank to excess, became insane, desponding, and openly declared his determination to destroy himself, which he did by hanging. *Another*, an elderly man, having failed in business, fretted greatly, passed sleepless nights, was much depressed, fell ill, insane, exhibited a tendency to suicide, refused food, begged to be released from his wretched plight, besought those about him to furnish him with the means of doing so himself, and at length effected his purpose by hanging.

\* See page 81.



These four and the one mentioned in my letter to the Solicitor to the Treasury, are the cases of patients who avowed their intention to commit suicide, and succeeded in accomplishing that object; those who entertained a like feeling and expressed it, but were protected against themselves by the unceasing watchful care of the attendants, constitute a very large number. One of these, an aged man, died lately, who for ten years consecutively persisted in making attempts upon his life, all of which were frustrated.

I am, dear sir,

Yours faithfully,

Dr. Maudsley, M.D.

W. C. BEGLEY.

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Retreat for the Insane, Hartford,

Connecticut, U. S. A., January 15, 1872.

SIR,—Your note informing me that I had been unanimously elected Honorary Member of the Association was received with grateful emotion. I know of no section of our profession which, during the present century, has accomplished more for science and humanity than this Association. Its honours, therefore, are, in my estimation, the highest honours of the profession.

I remain,

With great respect and esteem,

Your obedient servant,

JOHN S. BUTLER, M.D.

Harrington Tuke, M.D., Hon. Secretary,  
Medico-Psychological Association of Great Britain.

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#### *Books Received.*

1. The Science and Practice of Medicine. By William Aitken, M.D., Professor of Pathology in the Army Medical School. Sixth Edition. (*See Part II., Reviews.*)
2. Treatise on the Medical Jurisprudence of Insanity. By Isaac Ray, M.D. Fifth Edition. (*See Part II., Reviews.*)
3. Theologisches Literaturblatt, in Verbindung mit der Katholisch-theologischen Facultät zu Bonn, herausgegeben von Prof. Dr. F. H. Neusch. Bonn, 15th January, 1872.

(The number of this Journal with which we have been favoured contains a full and critical review of Dr. Maudsley's "Body and Mind" by Dr. F. A. Hartsen, who says of it—"Die Haupttendenz des vorliegenden Buch ist also eine durchgehende Verherrlichung des Materialismus." We could not, of course, expect a critic in a theological journal to agree with the spirit of the book, but we cannot complain of the tone of his remarks, or of the thoroughness with which he has done his work. Our German friends carry their patient industry and thoroughness into their reviews.)

4. The Power above Matter: an Address read before the Hunterian Society, on the 11th of October, 1871. By Dennis de Berdt Hovell, President of the Society. Churchill. 1871.

(It is the author's object to show that we cannot accept materialism as a finality: that is to say, as the cause of the qualities which appertain to matter; but that there also are immaterial causes which act upon matter, and that materialism, as a finality, involves us in imperfect conclusions, or some inconsistent absurdity. He maintains that the compounds of protoplasm do not exhibit the phenomena of life, when brought together under any circumstances, unless they are endued with the principle of vitality. There are immaterial agencies distinct from material conditions. Our faculties, whether of body, mind, or feeling, are not the *result* of molecular changes:

we must not confuse the principle of action with the machinery by which it works. There is a palpable distinction between will and volition: the will to do a thing is quite distinct from the volition necessary to carry it into execution.

5. *Spiritualism Answered by Science.* By Edward W. Cox, S.L., F.R.G.S. Longman and Co. 1871.

(It has been erroneously supposed that Mr. Serjeant Cox was converted, by the results of Mr. Crooke's so-called scientific observation of Mr. Home, to the creed of Spiritualism. All he was really convinced of was of the existence of "an entity, distinct from the corporeal structure, which can exercise an active force, directed by intelligence, beyond the limit of the bodily power, and which is not material, but something other than the scarpel carves and the microscope reveals." The object of this short treatise is to state fully and frankly the facts and arguments that have convinced him that there is such a force, by the recognition of which he thinks that Science may yet be enabled to restore the faith Science has shaken in the existence of the soul and the consequent prospect of immortality.

6. *Darwinism refuted by Researches in Psychology.* By Antoine G. Carlier, French Master at King Edward VI.'s School, Norwich. London: Jarrold & Sons.

("Materialists, already so numerous," says the author, "forgetting purposely that Mr. Darwin names the Eternal at every page, have used his theories as an arm against any belief in an intellectual principle, that is God." He has therefore set himself to work to demonstrate the necessary existence of an intelligent principle—the existence of the soul, independent of matter, having qualities which are not "*poetical traddle*," as it pleases the materialists to call them. He is far from attributing to Mr. Darwin any intention of materialism, but he cannot but deplore the evil influence which his book has exercised on certain minds. If Darwin's view of evolution be true, "matter must have had in itself this principle of development, and therefore matter would be God, and consequently the soul would be material; but the soul is intellectual, and no one can deny that matter is un-intellectual, and without preconceived will, as the stone which falls; therefore the soul is immaterial." But what becomes of this clever feat of reasoning if the materialist obstinately affirms, as he does affirm, that matter in its highly complex condition of nerve element is not un-intellectual, but actually does think? If M. Carlier were a member of Parliament, "I would," he says, "propose a bill to this effect, that no person should be permitted to fulfil any public office unless he took an oath of his belief in the existence of a God." We would suggest that a better bill for him to propose, when he gets into Parliament, will be a bill to enact that man shall "swear not at all"—a bill, in fact, to abolish swearing as *contra bonos mores*, and of evil example to materialists. While recognizing the goodness of M. Carlier's intention, and the earnestness of his convictions, we fear that his pamphlet will be considered, even by those who think with him, as an instance of zeal outrunning discretion. He evinces an ignorance of, or a signal inability to comprehend, the scientific facts and arguments against which he declaims, and he proves that a zealous faith in the truths of religion does not suffice to inspire the charity which thinketh no evil of those who do not think with him. Addressing the unfortunate materialists, he asks, "What would happen if you were the most numerous? Eh! Ask me what the jackals do when they are the strongest." They are excellent scavengers, we believe, in the countries in which they exist, and it has sometimes occurred to us, as much enduring reviewers, that it would be a good and excellent thing if there was a similar provision in the literary world for clearing away a great deal of matter that is only calculated to breed a pestilence of thought and feeling.)

7. The Life and Doctrines of Haller : An Anniversary Address before the King's County Medical Society. By R. Cresson Stiles, M.D., New York. 1867.

A Portion of the Annual Address before the New York Academy of Medicine, for 1870. By the same author.

(The first address we have read with some satisfaction, as it contains a tolerably interesting account of the life and labours of the distinguished man whose great name it commemorates ; but we have not been able to make much of the second address, perhaps because it is only the portion of an address. This note, however, may be of interest to those whom it concerns, or to their friends who have any interest in their property)—

“The physician who has had opportunities of becoming acquainted with the symptoms of insanity in its varied forms, cannot fail to recognise its indications in the written and spoken thoughts of many of his fellows on whom the world has not learnt to cast suspicion. The following selections are here brought forward as indications of mental aberration, and in proof of the correctness of the above position.

“The more we observe and study the wider we find the range of the automatic and instinctive principles in body, mind, and morals, and the narrower the limits of the self-determining conscious movement.’—*Holmes*.

“‘Matter and law have devoured spirit and spontaneity.’—*Huxley*.

“‘Physiologically we cannot choose but reject *the* will ; volition we know, and will we know, but *the will* apart from particular acts of volition or will, we cannot know.’—*Maudsley*.

“‘Will it be believed that the Archbishop of York actually appeals to the instinct of the savage to rebuke the alleged atheism of science.’—*Maudsley*.

“‘If philosophers have suffered, their cause has been amply avenged. Extinguished theologians lie about the cradle of every science, as the strangled snakes beside that of Hercules.’—*Huxley*.

“Alas for Messrs. Holmes, Huxley, Maudsley, Tyndall, Herbert Spencer, Sir Joseph Hooker, Sir Charles Lyell, and the members of the fraternity throughout Christendom.”

8. On the Relation of Therapeutics to Modern Physiology. By Henry R. Madden, M.D. Ed.

(This is a reprint of an article which appeared in the “Homœopathic Review,” which we mentioned in our last number. We feel not a little surprise that the author, who has written so well of the condition and tendencies of modern physiology and of the relation of therapeutics thereto, should accept the so-called law of *similia similibus curantur* as a satisfactory solution of the therapeutical problem. That a drug invariably produces in the diseased organism a series of changes precisely opposite to those which it produces in health, and that consequently it removes from a diseased part the entire series of symptoms which it would excite in the same part when healthy, seems to us to be a proposition that is not well founded in experience or in philosophy, but is really a big and unfounded assumption, and, as such, likely to mischievously retard the advent of a true therapeutical science.)

9. The Present Condition of Political Liberalism in England. By W. Dyson Wood, Assistant Surgeon to the West Riding Prison at Wakefield, author of “Hamlet from a Psychological Point of View,” &c. Longmans & Co. 1872.

Social Politics. By W. Dyson Wood.

(We are not politicians, and if we were in the House of Commons we should probably have as much faith in the play going on there as has Mr. Disraeli, towards whom Mr. Wood seems, in a fit of repulsion to Mr. Gladstone, to

be gravitating; but we certainly should get very weary of keeping up a part in what Mr. Disraeli, we believe, considers the finest arena in Europe for gladiatorial display. A magnificent arena truly, but what of the elderly plutocrats who are the athletes?)

10. On Mental Capacity in Relation to Insanity, Crime, and Modern Society. By Christopher Smith, M.D. London: Baillière and Co.

(We cannot notice this singular production on the present occasion; all we can say is, it seems to us almost too bad to satirize a respectable physician, as the author does in his dedication to Dr. Forbes Winslow, whom he addresses as "prince of psychological science," "the involuntary objective in matters immediately connected with insanity," and when he adjures not to "bestow one mental vibration of your powerful sensorium that would imply censure!" What has Dr. Winslow done that he should thus be made a laughing-stock of?)

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*Appointments.*

BENHAM, W. T., M.B., C.M., M.R.C.S.E., has been appointed Assistant Resident Medical Superintendent of the Bristol Lunatic Asylum, Stapleton, vice S. H. Carter, M.D., L.R.C.S.Ed., resigned.

COURTENAY, E. M., M.B., C.M., has been appointed Clinical Assistant to the West Riding of Yorkshire Lunatic Asylum, Wakefield, vice J. Lowe, M.B., C.M., appointed Assistant Medical Officer to the Durham County Lunatic Asylum, Sedgely.

DENNE, T. V. DE. L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant Medical Officer to the County Asylum, Rainhill, near Prescott, vice F. Stocks, M.R.C.S.E., resigned.

EDWARDS, J. E., M.R.C.S.E. has been appointed Assistant Medical Officer to the North Wales Counties Lunatic Asylum, Denbigh.

HOLLAND, J., F.R.C.S.E., has been appointed Medical Superintendent of the Lancashire Lunatic Asylum, Whittingham, near Preston.

KING, T. R., M.D., has been appointed Assistant Medical Officer to the Newcastle-upon-Tyne Borough Lunatic Asylum, vice Thomas Lyle, M.B., C.M.

LEY, H. R., M.R.C.S.E., Superintendent of the Salop and Montgomery Counties Lunatic Asylum, has been appointed Medical Superintendent of the Lancashire Lunatic Asylum, Prestwich, vice Holland.

LYLE, T., M.B., C.M., Assistant Medical Officer of the Borough Lunatic Asylum, Newcastle-upon-Tyne, has been appointed Assistant Medical Officer to the Cheshire County Asylum, near Macclesfield, vice Dr. King, resigned.

MITCHELL, S., M.D., Medical Superintendent, and formerly Assistant Medical Officer at the West Riding Asylum, Wakefield, has been appointed Medical Superintendent of the South Yorkshire Asylum, Sheffield.

RUGG, B. A., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Medical Officer to the Earlswood Asylum for Idiots, vice R. Hullah, M.R.C.S.E., resigned.

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*Obituary.*

WILLIAM FRENCH MORRISON, M.A., F.R.C.P.Ed., Assistant Physician to the Fife and Kinross District Lunatic Asylum, on board the Strathdon, at Sydney, aged 27, on December 12th, 1871.

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*Erratum.*

In page 622 of the January number, line 33, for 1851 read 1821.

# THE JOURNAL OF MENTAL SCIENCE.

[*Published by Authority of the Medico-Psychological Association.*]

No. 82. NEW SERIES  
No. 46.

JULY, 1872.

VOL. XVIII.

## PART 1.—ORIGINAL ARTICLES.

### *Tumours of the Brain and their Relation to its Mental Functions.*

By T. S. CLOUSTON, M.D. Ed., Medical Superintendent  
of the Cumberland and Westmoreland Asylum, Carlisle.

Tumours of the brain have long been recognised as a cause of insanity, but different authors have regarded them in very different lights. Arnold<sup>1</sup> quotes Morgagni and Bonetus, that tumours are one of 47 pathological changes found in the brains of the insane. Esquirol<sup>2</sup> mentions them as among the morbid conditions found in the brains of the insane, but did not connect them with any particular symptoms. According to French statistics they occurred in the form of cancer in 22 out of 8,289 cases, that is, about 2·7 per 1,000. Dr. Sutherland<sup>3</sup> mentions that he found 4 in 200 cases, or 20 per 1,000 cases. Tuke and Bucknill<sup>4</sup> say that they only found 1 tumour in 400 autopsies, or 2·5 per 1,000. Leubuscher found tumours of the brain in four cases out of 358 autopsies,<sup>5</sup> or at the rate of 11·5 per 1000. Fischer found not one case of tumour in 318 autopsies at the Prague Asylum.<sup>6</sup> At the Carlisle Asylum we have performed 214 autopsies, and there have been 6 cases of tumours of the brain, which is at the rate of 28 per 1,000 cases.

We have the experience of both the special writers on insanity and of ordinary writers on physic, as to the mental symptoms produced by tumours. Of the former Griesinger<sup>7</sup> mentions melancholy or maniacal excitement at the beginning, and profound dementia at the end. Dr. Maudsley<sup>8</sup> mentions acute delirium and imbecility as symptoms, and remarks on the fact as being important, that we do not meet with any

<sup>1</sup> "On Insanity," vol. i., p. 294. <sup>2</sup> "Maladies Mentales." <sup>3</sup> "Croonian Lectures." <sup>4</sup> "Psychological Medicine," p. 483. <sup>5</sup> "Pathologie und Therapie der Gehirnkrankheiten." <sup>6</sup> "Pathologisch-Anatomische Befunde in Leichen von Geistes Kranken." <sup>7</sup> "On Insanity," Syd. A. So. Trans., p. 430. <sup>8</sup> "Physiol. and Pathology of the Mind," p. 389.

of the recognised forms of insanity in those cases. Dr. Blandford<sup>9</sup> says that they chiefly cause feebleness, wandering and dementia, or delirium and coma, but he thinks that where such mental symptoms occur with tumours there will be found a hereditary tendency to mental derangement. Dr. Mackenzie Bacon<sup>10</sup> relates a case of a large tumour of the brain in a congenital imbecile, in which there were no symptoms but a gradually increasing stupidity. Mr. Adam Addison<sup>11</sup> gives a sort of torpor of the intelligence as the chief symptom of brain tumours.

Of the latter class of writers, Dr. Abercrombie<sup>12</sup> mentions many mental symptoms as occurring with tumours, such as dulness of the intellect, impairment of the memory, delirium, and coma, but he does not differentiate the mental symptoms of tumour from those of other organic diseases of the brain, and he mentions no mental symptoms at all in most of his cases. Andral and Durand-Fardel inferred from the cases analysed by them that there are no mental symptoms in most cases. Calmeil found that the intellect was disordered in one half of all the cases of tumours and other organic diseases of the encephalon, but then this may be accounted for by a considerable part of his experience having been derived from lunatic establishments. He says that dementia and delirium are rarely observed; that there is usually obtuseness of comprehension, and loss of memory sometimes. White softening, he says, is most like tumours in mental symptoms. Dr. Walshe<sup>13</sup> remarks that the cases of latent cancer prove that it is much less the new formation than the accidental modifications to which it gives rise, which produce the mental disturbance, and that the functions of sensibility and intelligence are commonly modified, but not in a uniform or characteristic manner. Niemeyer<sup>14</sup> says that there is no symptom occurring during the course of a cerebral tumour that does not sometimes occur from abscess or some other local cause. For psychical disturbances to be manifested, he says that both hemispheres have to be affected. Russell Reynolds<sup>15</sup> says the intellectual changes in the case of tumours are of two kinds, one being irritability, a condition totally different from the previous habit of the individual, rarely mild delirium or con-

<sup>9</sup> "Insanity and its Treatment," p. 82. <sup>10</sup> "Jo. Ment. Sci.," vol. x., p. 74.  
<sup>11</sup> "Jo. Ment. Sci.," vol. 8, p. 59. <sup>12</sup> "On the Brain," p. 32. <sup>13</sup> "On Cancer," p. 491. <sup>14</sup> "Practical Medicine," trans. by Humphreys and Hackley, vol. ii., p. 236. <sup>15</sup> "System of Medicine," vol. ii., p. 479.

fusion of thought; the other being loss of memory, impairment of intelligence, depression of spirits, and listlessness.

I think, therefore, that on the whole we may conclude that the subject of the relation of mental symptoms to tumours of the brain is by no means one of the definitely settled and exhausted fields in medicine, and that any clinical record of such cases cannot be considered as useless. I shall therefore proceed in the first place to relate the six cases that occurred among my 214 autopsies, and then to give an analysis of a number of recorded cases of tumour of the brain, with special reference to the mental symptoms connected with them.

No. 1.—J. R., admitted March 23rd, 1868, male, *æt.* 38, married, reads and writes, from Carlisle, butcher; first attack of insanity; no hereditary predisposition so far as can be ascertained; was intemperate in his habits, which is given as the predisposing cause of his insanity, the exciting cause being evidently organic disease of brain; has shown symptoms of insanity for four years. His first mental symptoms seem to have consisted in a change of temper, great irritability, and an altered affection to his wife and family. His first bodily symptoms were intense cephalalgia and a gradually increasing blindness, and this last symptom preceded by some time the mental alienation. He has been getting much worse mentally, being excessively irritable, violent to his wife and daughters, very abusive and foul in his language, and then accusing his wife of all the violence. He has still drunk hard when he could get it, and all his mental symptoms were very much worse after drinking, but he was sorry for all this afterwards. The blindness became complete, and he became slightly deaf shortly before his admission. During the twelve months before admission he had had several epileptic attacks. He wished to go to the asylum, and walked up with a friend.

On admission he showed slight signs of excitement and confusion of mind, but his memory was good; he was quite coherent, and, on the whole, sharp and intelligent; could answer questions correctly, and had no delusions. He was a heavy-looking man, with the blind expression of face, his features combining the expression of an advanced general paralytic and a man who is drunk. Brown hair, muscles and fat normal; his gait was affected like that of a tipsy man, his speech was thick and rather indistinct. He was quite blind, and deaf in his right ear. He said he had at times cramp in his legs; reflex action in legs normal. Right pupil

more dilated than left, and both nearly insensible to light. Lungs and heart normal; appetite good; tongue very white; bowels costive; temperature, 97·8; pulse, 72, good; height, about 5ft. 5in.

He remained in the state described for the first fortnight, except that on the very slightest provocation he became wild with passion, completely losing control over himself, and capable of doing any violence to those about him. On the 6th of April he had a severe epileptiform fit, being quite unconscious after it, but he was as usual next morning. He had those attacks frequently ever afterwards. For the first six months there was little change in him; after that he got more obtuse in mind, weaker and more paralysed in his legs, his articulation thicker and more indistinct, his pharynx more insensible and paralysed, so that he would have choked himself on any solid food. In nine months his legs were quite paralysed, his conjunctivæ got at first injected and then ulcerated, with ulcers of the cornea. During nearly the whole time he lived, an excessive irritability with violent paroxysms of passion often coming on without any cause were his chief mental characteristics. Towards the end of his life a clouding of his faculties took place, he slept much, and immediately before death he was semi-comatose. Reflex action in his legs continued very acute to the last. He died on the 17th January, 1869, ten months after his admission, and about five years from beginning of disease.

*Autopsy.*—68 hours after death.

*External Appearances.*—Body in fair condition, ulcer of right cornea.

*Head.*—Calvarium hard and heavy but not very thick. When it was removed a very curious appearance was presented. Over the surface of the dura mater there were a great many little cauliflower-like excrescences, scattered irregularly, but most numerous along the middle line, and the largest being in the locality of the Pacchionian bodies. The base of each was surrounded by a bulging of the dura mater, and where attached to this, each was quite small, forming a short pedicle. They varied in size from a pea to a bean; they looked like little projections of brain that had been made to squirt out through small holes in the dura mater, by slow, steady pressure from within—little herniæ of the brain. Each had a very thin fibrous covering, continuous with the dura mater. In colour they resembled a mixture of grey and white substance; in consistence they seemed to be nearly that



of ordinary brain convolution. Each had a clearly-cut bed absorbed out of the bony skull cap, only leaving a transparent plate of bone. There was a very large one over the right orbital plate, the size of a bean, causing complete absorption of the bone, so that it projected into the fat behind the eye. On attempting to raise the dura mater it was found that this could not be done without tearing the connection of these herniæ with the convolutions. At the narrowest part of the neck of each, as it passed through the dura mater, it consisted of little white and grey matter, so that when torn off there was a small white spot like a pin's head in the convolution from which it sprung. On section it was seen that this white substance passed through the grey matter of the convolution like a stalk, and was continuous with the ordinary white brain substance, and outside of the dura mater it extended into each hernia, swelling out and forming its centre, with a thin covering of grey substance. By gentle pressure from without, a considerable part of some of the excrescences could be pressed back, the hernia could, as it were, be so far reduced, but this broke up to a greater extent what was evidently slightly softened brain substance already.

When the brain was lifted up a large tumour was found attached to the right side of the cerebellum and along part of the right crus cerebri, pressing on and causing partial absorption of that part of the pons Varolii and cerebellum. It was firmly attached to the fibrous portion of the temporal bone, causing absorption of the bone, and entering into and disorganizing the internal ear of that side. It pressed on the lower portion of the middle lobe of the cerebrum, causing complete ramollissement there, so that the fluid in the ventricle ran out at that part when lifted. The tumour was hard and fibrous in some parts, soft and cystic in others, grey in colour, and somewhat irregular in outline, being altogether about as large as a hen's egg.

The ventricles were much enlarged and contained much fluid. On section there were spots of ramollissement over right orbit, at base of middle lobe of right side, and in corpus striatum of right side, the white substance being generally doughy; optic nerves and tracts grey and fibrous.

*Microscopic Examination.*—On a microscopic examination of the brain substance in the fresh state, the covering of each excrescence was found to consist of fibrous tissue, being thinned dura mater. The inside consisted of masses of granules, compound granular cells, and in some places

there was a striated appearance, the remains of white nerve fibres. The arteries were coated in most places with granular matter. On examination of the pedicles of the excrescences, the granular cells were not so numerous, and the striation of white fibres more perfect. At the surface of the brain the appearance was that of healthy white brain substance. Altogether the morbid appearances were more marked at the outside of each hernia.

On examination of sections of convolutions, hardened in chromic acid, and cut and prepared by Sterling's method, it was found that the blood vessels were very much enlarged and tortuous, and surrounded by granular matter and a great number of round vacant spaces in each section. Probably these had contained some morbid product, such as masses of granular matter which had fallen out or been dissolved by the turpentine and spirit in the process of preparation.

*Chest.*—Lungs free in cavity of chest. Right lung congested, above and below solid, infiltrated and friable; left, normal. *Heart*-valves competent; muscular substance dark in colour, soft and flabby in consistence.

*Abdomen.*—*Liver* dark in colour and friable. Other organs normal.

No. 2.—J. M., admitted 2nd June, 1870, male, æt. 44; married, mechanic; reads and writes. Had no previous attack of insanity; no hereditary predisposition to insanity. A quiet, sober, very hard-working, and saving man. No predisposing cause of brain disease or insanity known. Exciting cause of insanity evidently organic disease in brain. Been about four months insane. His first mental symptom was an irritability unusual in him, and this was noticed twelve months ago. There were no bodily symptoms present then; but he soon began to complain of pain in his head. This irritability became greatly worse six months ago, and still increased, so that it was evident his self-control was gone four months ago. Shortly after this time paralysis of the legs began to appear, and six weeks ago his sight began to fail, this symptom rapidly advancing, until he is now ordinarily quite blind, though he can see slightly at times. Lately his mental state has been changeable, being at one time that of extreme irritability—swearing and storming without any cause whatever; at another, that of great depression from the idea that he would never get well. He tried to commit suicide by

hanging himself and by jumping over a bridge. Bodily, he has been blind, deaf, and partially paralysed in his legs.

On admission, he seemed depressed, but was easily excited. Spoke quite coherently; thought that he had come to a hospital. Seemed most anxious as to what the doctors' opinion of his case would be, asking questions, and requesting to squeeze his hand once for "Yes," and twice for "No." He said if the doctor thought he was not to recover that he would greatly wish to get a dose of poison rather than live in such a miserable state.

His appearance was that of a well-built, intelligent-looking working-man, his features being heavy, and he had the "blind expression" markedly. Was dark complexioned, had brown hair, brown eyes. Muscles flabby, was in fair condition; legs partially paralysed, so that he walked insecurely and in a straddling way. His speech was thick. One side was not affected more than the other. Reflex action acute, pupils not quite circular, dilated and insensible to light; almost equal in size. Had optic neuritis most severely. Was perfectly blind, and quite deaf. Lungs and heart healthy; pulse, 96; tongue clean; appetite good; bowels costive. M.T., 97; E.T., 96.4; height, about 5ft. 7in.; weight, 138lbs.

After admission, from the first month he remained much in the state described. He was impatient, querulous, and fretful, mentally. There were no delusions. He talked much to himself, swearing and bemoaning his lot. At times he would get into ungovernable passions, striking the sofa on which he was sitting most violently. When patted and soothed, he seemed to appreciate the sympathy, and would cry bitterly and beg that he might get poison or have his throat cut if his disease could not be cured. His whole state was calculated to excite much pity. He seemed to hear a little at times. He ate and slept well, and gained five pounds in weight in the first month. His evening temperature was very low, seldom being 97°, and at this time lower than morning temperature. His pupils were sometimes contracted, and at other times dilated irregularly. His sense of touch was much impaired, not being able to tell exactly what part was touched.

He gradually became weaker and more paralysed, until in four months after admission he was unable to walk alone at all; he had lost about 20lbs. in weight, his pulse was weaker, his articulation so thick (like a very drunken man) that it could scarcely be understood at all, the pharynx was evidently much

paralysed, so that he had a difficulty in swallowing, and had to be fed entirely on soft food and minced meat. Once he was on the point of being choked. He was always most greedy for his food. There was no paralysis of the sphincters, either of the anus or bladder. Touch still more impaired, but reflex action normal. Mentally, all his faculties became more blunted, and he got into a sort of chronic but more feeble excitement, groaning, moaning, swearing, and striking the sofa. He dozed most of the day. His facial expression was remarkably like that of a very intoxicated man in a rage. About five months after admission he had the "insane ear," first the right and then the left. He frequently had attacks of stupor, falling down, but with no marked convulsions. He remained in the state I have last described for about six months, and then became so weak that he had to lie down; could not sit up in the corner of a sofa any longer, and had to be kept in bed, his legs especially being completely paralysed, but reflex action remaining; conjunctivæ got injected and ulcerated. He got more and more into a state resembling coma, and had one or two slight "congestive attacks," with a high temperature, and died on the 8th of August, being fourteen months after admission, and two years and two months from the commencement of the disease.

*Autopsy.*—34 hours after death.

*External Appearances.*—Body rather thin. A bed sore over sacrum. Ears partly shrivelled.

*Head.*—Skull cap thin. Dura mater not abnormally adherent, but was thick and leathery. On the left side, about the line of junction of the parietal and occipital bones, there was a small cauliflower excrescence of what seemed to the naked eye to be mixed grey and white brain substance about the size of half a marble. There was a corresponding depression in the bone, sharply defined where there was only a translucent plate of bone remaining. It looked exactly like a portion of brain squeezed through a small hole in the dura mater which adhered to the brain at that point only. On section the left hemisphere was generally doughy, and had a spot of red softening in front of the corpus striatum. At the point where the excrescence projected through the dura mater it was seen to be a part of a convolution. The right hemisphere was much softened, the white substance of part of the anterior hemisphere being almost diffuent (white softening). There were no granulations in lining membranes of lateral or 4th ventricles.

There was a soft cancerous-looking tumour attached to the right side of the pons Varolii and upper part of the medulla, about the size of a pigeon's egg. Its surface was rough, its substance in most places firm, but in other parts softened, the firm parts being grey in colour, and the soft parts dark and bloody. It was in contact above with the cerebellum, but not attached to it, though there was an indentation in which it lay, which was softened. On the left side of the cerebellum, attached to and imbedded in it, there was a similar tumour, rather less in size. This was in contact with but not adherent to left side of pons. There was much pigment on outer surface of medulla. The whole of the pons was softened, and also the upper part of the medulla.

The optic nerves and tracts were hard, and chiefly composed of grey fibrous matter. The roots of 5th pair seemed softened on both sides. The roots of 8th and 9th seemed normal.

The arteries of brain were atheromatous.

Brain weighed  $55\frac{1}{4}$  oz., right and left hemispheres being equal. Pons and cerebellum (including tumours)  $7\frac{1}{4}$  oz.

*Chest.*—Right lung adherent and congested below. Left, congested above, and below quite solid, the lower part containing several gangrenous spots, with inflammatory, purulent, and tubercular products mixed in nearly all the lower lobes.

*Heart.*—Muscular substance somewhat fatty.

*Abdominal organs* almost normal.

*Microscopic Examination of Hardened Brain.*—The convolutions near the excrescence were examined, and the sections showed a great many clear spots, as though the brain were atrophied or absorbed in these places. These occurred in the grey matter. The arteries were large and surrounded with granular matter. Through the grey matter there were enormous numbers of small irregular-shaped granular masses. These disappeared when the sections were cleaned with turpentine, but were well seen during the process of cleaning. They were well seen when they were cleaned by chloride of calcium. The excrescence itself was so soft on the outside that when hardened it broke down into powder and would not cut. It was seen to consist of granular masses more numerous, larger, and more irregular than those in the convolutions, mixed with larger tortuous blood vessels, and some half broken down white fibres, inside near the dura mater it was quite striated to the naked eye, and consisted of white fibres mixed with large blood vessels and much granular matter.

No. 3.—M. W., admitted 12th April, 1871; female, æt. 47; married; cannot read or write; from Carlisle; wife of a cotton spinner.

First attack of insanity; no hereditary predisposition; of a cheerful, easy-going disposition, but latterly irritable; habits, formerly industrious, latterly idle and intemperate. The predisposing cause of her insanity was supposed to have been change of life, and the exciting cause organic disease of the brain. The first symptoms dated from five years before admission. Her first mental symptoms were a change of habits and disposition, becoming irritable, and taking to drink, getting slovenly, idle, and careless of her household duties. There were no bodily symptoms present at first. She got worse mentally; began to lose herself sometimes about two years ago, getting more and more irrational and irritable, once threatening the children with a knife. She was always worse, mentally, after the epileptiform fits which she began to take two and a half years ago. Has had about six fits since then. Sight began to get impaired 21 months ago, and this has gone on to complete blindness for the past two weeks.

On admission she laboured under slight depression and a sense of fear; her mind was much enfeebled and confused; she mistook the identity of those about her; her memory about many things was fair; she was coherent on some points and at some times, at other times and on other points she was incoherent. She could answer questions put to her, and her only delusions seemed to be as to the identity of those about her. Was a stout woman, with a vacant blind expression, dark grey hair, blue eyes, muscularity average, fatness considerably above average. She was partially paralysed in her legs, so that she could not walk without assistance, and she felt generally weak. Reflex action was abnormally acute. Pupils equal and sluggishly contractile. Was quite blind; could not even distinguish light from darkness. Hearing and touch normal. Lungs and heart normal. Pulse 66. Tongue has a slight grey fur with red papillæ, was steady when put out. Bowels regular; appetite good. Temp. 97.6; about 4ft. 11in.; weight 126lbs.

The day after admission she was in a confused state of mind, not being able to distinguish night from morning, fancied she was in a village near Carlisle; thought those about her were old friends, and talked in an abnormally jolly and happy way; was garrulous and silly. She had slept

well; appetite good. M. temp. 97.8; E. temp. 96.4. On the 27th April (two weeks after admission) she had a fit, apparently in all respects like an ordinary epileptic fit, and was very irritable and restless after it. Sometimes did not sleep, but 20 grain doses of chloral always procured comfortable sleep and seemed to calm her irritability and restlessness. At times she could walk quite well, at other times not.

On the 31st of May she was most restless and irritable and violent during the night. She had a severe fit on the morning of the 2nd of June, remained stupid after it, vomited, and could take no food that day, and died quite suddenly and quietly in the middle of the day, looking blue in the face at the time, having no convulsive attack immediately previous. The disease had lasted five years and two months.

*Autopsy.*—25 hours after death.

*External appearances.*—Body fat; face and lips slightly dark-coloured.

*Head.*—Scalp very vascular; skull cap normal; dura mater dry-looking. A greyish tumour showed itself about an inch and a half from tip of the anterior lobe near the middle line. The convolutions were stretched over it, and thinned round the point where it showed itself. This tumour was found to be of large size, being about the size of a large orange, of slightly irregular outline and uneven surface. It had only a very slight connection with any part of the left hemisphere which surrounded it, and had no root or pedicle or other special relation to any part of the brain. It had been nourished by blood-vessels passing into it all round it. So far as could be ascertained, it had originated near the island of Reil. On section it was of a softish lacerable consistence, considerably harder than ordinary brain tissue. It was of a greyish white colour, exactly like a medullary tumour. The convolutions, where stretched over it, were much softened, those of middle lobe less so. The corpus striatum and optic thalamus of that side were also softened. The posterior lobe seemed normal in consistence but pale. The anterior lobe of right side was somewhat atrophied and pushed over by the tumour. On section it was pale in colour and slightly soft in consistence. The posterior lobe was normal. The cerebellum and pons were very soft and lacerable indeed. Brain weighed  $47\frac{1}{2}$  oz.; right hemisphere, 18 oz.; left (without tumour),  $18\frac{1}{4}$  oz.; tumour,  $6\frac{1}{2}$  oz.; cerebellum and pons, 5 oz.

*Chest.*—Both lungs adherent by old adhesions, and congested.

*Heart.*—Flabby.

*Abdominal organs* normal.

No. 4.—T. G., admitted 10th August, 1869; æt. 35; male, single; from Carlisle, joiner. First attack. Has a sister imbecile; father was intemperate. Was always weak-minded, but earned his living as a joiner until three months ago, when, without any exciting cause, he became more stupid in mind, took a fit, then became restless and violent and sleepless.

On admission he seemed entirely imbecile in mind, with no memory; was quite taciturn, could only answer the simplest questions; did not express any delusions. His face was entirely expressionless. He seemed feeble; muscles flabby and feeble; fatness average. He walked quite unsteadily, like an advanced general paralytic, but there was no trembling or twitching of muscles of face or tongue. He articulated very badly. His sight was much impaired. After admission he went about the ward all day, staggering and straddling in his gait; was irascible and emotional, but had no delusions. He steadily became more feeble and more unsteady, and lost all control over his sphincters. He still could see a little. In three months after admission he was weak and had to lie in bed all day; the conjunctiva of his right eye ulcerated; his pupils became insensible to light; reflex action became much impaired; and he died on the 13th of October, about six months after the first symptoms were observed.

*Autopsy.*—44 hours after death.

*Head.*—Calvarium much thicker in front than elsewhere, the frontal bone being half an inch thick; membranes dry looking. On the pons Varolii under the right crus cerebri there was a hard tumour about the size of a pea. On section it had an outer layer of what looked like ordinary white-brown substance, and its centre consisted of a yellowish hard substance, surrounded by a congested fibrinous layer. The optic nerves were enlarged, gelatinous looking, and of a pale colour. On section no trace of ordinary nerve substance could be seen in them. The optic commissure was in the same state. The tracts were a mass of soft gelatinous substance, with a slight trace of nerve tissue. In the course of the optic tracts of each side there was a tumour like the one on the crus cerebri; the two being symmetrical. The ventricles were much enlarged. Both optic thalami were almost diffuent.



The corpora striata were normal. The corpus callosum was soft, and in some parts diffuent. The medulla oblongata was flattened antero-posteriorly at its junction with the pons, and on section was found to be slightly softened there (compound granular bodies being found on microscopical examination). The upper part of medulla was adherent to cerebellum, thus obliterating the fourth ventricle. There were large projecting granulations attached to medulla. Brain weighed  $46\frac{1}{2}$ oz.; right hemisphere,  $20\frac{1}{2}$ oz.; left hemisphere, 20; cerebellum and pons, 5.

The foramen magnum was diminished in size by an enlargement of the odontoid process. There was also more antero-posterior motion of atlas on axis than should have been.

Spinal cord seemed normal.

Lungs congested, and bronchi contained some purulent mucus; otherwise the organs in chest and abdomen normal.

On a microscopic examination of the lower part of medulla and spinal cord, hardened in chromic acid, and cut into thin sections with Sterling's machine, they were found to be normal, so far as could be ascertained.

No. 5.—F. C., æt. 41, admitted 22nd September, 1863. Had been insane for a year and a half previously, had recovered, and had kept well for sixteen months after discharge.

On admission was confused, though to some extent rational. Bodily health seemed good. She gradually became subacutely excited with paroxysms of greater violence, but had no fixed delusions, and remained in this state for about a year. When violently excited she had an extraordinary maniacal look—her face getting purple, the veins over her neck swollen, her eyes staring and fixed, altogether looking as though in an epileptic fit. When the excitement passed off she became mildly depressed in mind for a year, and then became excited again in the same way as before, but not so violently so. In the beginning of April, 1866, she complained of sickness and headache sometimes, but otherwise had no head symptoms; she was lively, and took her food well. On April 6th she suddenly fell down unconscious, with scarcely any convulsive movements, her face and neck looking congested, her eyes staring and her pupils dilated, and was dead in a minute or two.

*Autopsy.*—19 hours after death.

The skull cap and membranes were normal. Grey brain substance dark coloured and congested, especially in its

outer layer; white substance was also congested. In each hemisphere there was a mass of gritty matter the size of a marble, imbedded partly in corpus striatum and partly in white substance above it. Immediately surrounding these there was a softened and dark-coloured circle, and outside of this a hardened ring of brain substance. The rest of the brain and other organs were normal. The blood was dark coloured and fluid. Brain weighed 40oz.

On a microscopic examination of the hardened brain cut into sections, the tumour itself was seen to consist of imperfectly organised matter, with cretaceous nodules in little sacs. The brain round it was filled with small oval or irregular spaces, which appeared as clear spots in the sections.

No. 6.—In the sixth case of cerebral tumour, it was cancer; secondary to soft cancer of breast.

S. S., admitted 19th October, 1866, æt. 36, female. Second attack of insanity. She laboured under melancholia at first, which afterwards changed to a sort of moral insanity, with impulsive, violent conduct. She was in excellent bodily health till she began to show signs of having cancer of right breast. This increased very rapidly, was twice removed, but returned each time. Three months before her death she lost the sight of her right eye, she had drooping of the lid, congestion of conjunctiva, dilated pupil insensible to light, and had frightful pain in eye and head. She had no cerebral symptoms before death, except the cephalalgia, at all referrible to any tumour of brain. She died on the 2nd April, 1868.

*Autopsy.*—24 hours after death.

*Head.*—A small cancerous mass about the size of a marble was found at the junction of middle and anterior lobe of left hemisphere in the convolution next the middle line. On section it was hard and grey in the centre, but gradually softened into softened brain substance infiltrated with blood. It extended through the grey and half an inch into the white, and the brain substance was softened to the extent of an eighth of an inch round it. On the under surface of posterior lobe of right side there was what seemed to be a minute nodule of cancerous deposit, surrounded by softened brain substance infiltrated with blood, the white substance being softened to the extent of three-quarters of an inch round. This part of the brain was pale and almost colourless, while all the rest was very vascular, and studded with punctæ. There was a cancerous deposit in choroid surrounding optic

nerve of right eye, and enormous cancer of lymphatic glands of axilla, neck of sternum, and lungs, and pleuræ. On a microscopic examination of the optic nerve behind where the cancer affected it, the structure appeared to be quite normal.

In the few remarks which I shall make as a commentary on those six cases, I shall dwell chiefly on the psychical symptoms which appeared to have been caused by those foreign growths in the substance of the organ of the mind. The physical symptoms produced by tumours in the brain are usually brought into the greatest prominence by authors on this subject, as we have seen. Both classes of symptoms are of the greatest possible interest, but to us, as medico-psychologists, the former naturally excite our attention most. Yet the consideration of them has this advantage to us, that our minds are forcibly directed to all the functions of the nervous system, and we must take a wider and more catholic view of such cases than that of mere specialists. They are one of a group which connect what is called "ordinary insanity" with ordinary bodily disease.

In considering those cases, the points of most interest to be kept in view are—1st, their relation to the mental symptoms, whether as a direct cause by pressure on or absorption of the convolutions, an indirect cause by setting up irritation and softening, or a still more indirect cause by acting as a stimulant to exaggerated or morbid action of the nerve cells; 2ndly, their relation to epileptiform convulsions; 3rdly, their relation to paralysis of motion and sensibility; 4thly, their duration; 5thly, their pathological nature.

Looking at the six cases, we see at once that the tumours differed very greatly in the different cases as to their relation to the mental symptoms. In this respect they are so far typical of the disease, for the history of cases of tumours of the brain exhibits a variety of bodily and mental symptoms, as astonishing as it is difficult to explain. The first four cases, however, form a group with many points in common; and of these the first two resemble each other in all respects as closely as any two cases of a specific disease. Pathologically they are, so far as I can find out, quite unique. I am not able to come on any record of the peculiar herniæ of the brain which they both had. That condition was indirectly caused by the slow and steady pressure outwards of the growing tumours. It was to me a perfectly new fact in brain pathology, that the organ had the power of so accommodating itself to such pressure that a portion of the grey and

white substance of its convolutions should pass gradually through a small hole in the dura mater, expand on the outside of it, in a secondary cranial cavity it had made for itself by absorption of the skull cap, and still retain any sort of resemblance to its normal consistence. That this was the process was clearly shown by the stalk of white matter that passed up through the grey matter, and connected itself with the herniæ. Undoubtedly, as was shown by the microscopic examination, the grey matter that had taken so unusual a journey, had got sadly damaged in structure, and no doubt also in function; but still it was not entirely unorganized; was so far from being diffuent that it looked almost exactly like unaltered grey matter.

The mental symptoms present in those two cases were, as we saw, almost exactly the same, and followed the same sequence, while in both cases they so closely followed the course of the bodily symptoms of paralysis, blindness, &c., as clearly to prove that they were directly dependant on a common cause. A change in the disposition, irritability, loss of self-control, partial at first, and then entire, alternate depression and excitement of manner and behaviour, while with all this there was a perfect consciousness of the fact that there was something wrong mentally—this was the first stage; torpidity of mind, muttering to self, dirty habits, loss of interest in all things, the second; and drowsy half-consciousness, ending in coma, the third. Here we have an epitome of the life of an ordinary case of incurable insanity in all its stages, the one taking a year or two to run its course, the other, it may be, twenty. Just because there were bodily symptoms superadded in the one case, that are usually absent in the other, the analogy so far as regards the functions of the grey matter is none the less perfect. And yet this train of symptoms we find in those two cases to be solely due to physical mechanical pressure on the grey matter, this pressure weakening its nutrition at first, and soon causing alteration of its structure. In one way the history of these cases is the more interesting that no particular part of the grey substance was at first directly pressed on, but it all suffered equally, the tumours being distant from the convolutions on which the pressure had exerted such an extraordinary effect. It will be observed that there were no delusions in either case, no special hallucination or absurd notions such as popularly give a distinctive character to ordinary madness. Here we come to the distinction between these two kinds of altered working of the brain cells. And it is a very real pathological

distinction no doubt, if we could look better into the brain cells. The absence of delusion is certainly most interesting in such cases of brain tumour, chronic abscess, or any slowly growing pressure. Pressure from within or without, applied suddenly to a brain in healthy working, will often be followed by delirium and delusion, if it is not so intense as to cause unconsciousness. Why this should be the case is I fear impossible as yet for us to explain in the present state of nerve physiology and pathology. The irritability and partial loss of self-control at first seen in those two cases we know to be the almost constant accompaniments of impaired brain nutrition. It would be interesting to know if these mental symptoms were caused by the pressure alone, or only showed themselves when the pressure had been sufficiently long applied to be causing structural change. The blindness having occurred so long before the mental symptoms in J. R.'s case, would certainly favour the latter theory. The depression present in J. M.'s case seemed to be quite natural in the circumstances, but it has been remarked by an Italian writer that mental symptoms generally, and especially depression, are apt to be present in cases of tumour of the pons.

The speech in these two cases was affected in a very similar way to the speech of general paralysis. I cannot help thinking that if our knowledge of brain pathology were sufficiently advanced we should find that the nerve centres that regulate the articulation and facial expression are affected in the same way in general paralysis and in such cases.

In both the cases the appetite was good almost up to the time they died. Their power of digestion, too, seemed to be fair, though their furred tongues and loss of weight in the later stages of the disease showed that nutrition was impaired. The cry of all the tissues of the body for nourishment, as represented by craving for food, would really seem to be independent of the brain. Certainly in those cases where every part of the brain was more or less affected by organic disease, and none of its functions were unimpaired, this desire remained strongly marked. It will have been observed that J. M. gained weight considerably at first, and had then no increase of temperature, and no raised evening temperature. The "insane ears" that were present in J. M.'s case are interesting, as showing that the state of the blood vessels was very analogous to their condition in general paralysis and extreme dementia. The absence during all the first period of the disease of any inflammatory tendency, as represented by an increased even-

ing temperature, is curious, and very contrary to what I should have expected.

If we now consider the third case, that of M. W., we see that it differs little from the others in mental symptoms. Irritability, loss of self-control, altered character, were all present. Death having taken place at an earlier period of the disease, there could be no comparison between her state and that of the two others in the later stages of their disease. Her mind was unquestionably weaker than theirs in all respects, and this would seem to be accounted for by the tumour being up more among the convolutions, pressing on them directly. Her mistaking the identity of those about her, and fancying she was in a neighbouring village, was more a mark of weakness of mind than a real delusion, considering she was blind. The greater tendency to epileptiform convulsions in her case and in that of J. R. (No. 1) agrees with what Niemeyer has remarked, that the more the disease affects the convolutions the stronger this tendency is. This does not strengthen Schroeder Van der Kolk and Brown Sequard's theory, that the medulla must be looked on as the primary seat of epilepsy. It would rather seem as though the seat of the original impulse or irritation that causes an epileptic fit were in the brain convolutions, transmitting a strong impression down to the medulla. The tumour not being so near the large cerebral ganglia that preside over motor and sensory life, it would have been supposed that she could have walked better, and that the special senses would have remained unimpaired. It was not so, however, as we saw. In regard to the blindness I shall consider it afterwards. Her mental condition, in many respects, resembled that of general paralysis.

The fourth case, that of T. G., was in its symptoms more like a case of ramollissement of the brain. The mental symptoms present could not be attributed to pressure like the three preceding, and there was a considerable difference between him and the others psychically. There was not the same irritability and loss of self-control present at first, but rather a rapidly increasing imbecility, with some amount of irritability. The fact that he had been rather imbecile always may have affected the mental symptoms in this case. It was the only case in which there was any hereditary tendency to insanity. The curious repetition of the same kind of small tumours in different parts of the brain, the evident solidarity of those with the degenerations of the optic nerves and the ramollissements, are important pathological facts.

In all the first four cases there could be no doubt that the mental derangement present was the direct result of the tumours and the pathological changes in the brain caused by or accompanying them. In the fifth case, that of F.M., this is not so clear. The insanity was really an ordinary attack of mania. It had occurred on two occasions, and she had recovered her mental soundness between them. There were no motor or sensory derangements pointing to any general affection of the nervous system. The two tumours or deposits were small and apparently of old standing, being in a part of the brain that is not directly connected with any of the great functions of life. It is doubtful if they could directly have caused the insanity; still, I think there can be no doubt they caused her sudden death, and, if so, might not the lesser effect of brain irritation and mania also have resulted in a reflex or indirect way? Certainly the microscopic examination seemed to show actual disease in the grey matter, but I need scarcely say to those who have either made or carefully examined sections of the grey matter, that we are far from being able to speak with certainty on this point. Tumours of the brain of all kinds have this tendency to cause sudden death. M. W. (No. 3) died suddenly in somewhat the same way. I think this must be connected with their tendency to cause severe epileptiform convulsions. In the two cases death was caused by the sudden cessation of the respiration, the heart continuing to beat for a short time. The dark colour of the skin and the fluidity of the blood showed that this was the case. No doubt the reflex centre of respiration in the medulla is by some sort of violent irritation, or some such cause, suddenly stopped from performing its normal function. There was a curious symmetrical disposition of the tumours on the two sides of the brain in cases No. 2, 4, and 5.

In the last case of cranial tumours, that of S. S., there are no mental symptoms referrible to them, as might have been expected from their small size. The chief point illustrated by them is the evident irritation in the brain substance, caused by a cancerous deposit, however small, *from the very beginning*.

It was my intention to have gone into the subject of the blindness, which was complete in the first three cases, and partial in the fourth, but Dr. Clifford Allbutt has gone so ably and exhaustively into the question in his book "On the use of the Ophthalmoscope in Diseases of the Nervous System," that it would be mere presumption in me to do so. Von Gräfe explained the changes in the optic nerves and retinae in all

such cases by the theory of an impeded circulation in the veins, from the pressure of the tumour. The latest theory on the subject is that there exists a lymph cavity between the outer and inner sheaths of the optic nerve that is continuous with the arachnoid cavity. In all diseases, therefore, where there is an excess of fluid in the latter it finds its way into the former, and there is a pressure round the optic nerve entrance into the eye, causing a sort of œdema of the retina. This may explain the choked disc seen in some cases, but the actual structural change in the nerve which we have seen to exist in the first form of these cases is not to be so explained. It has been long known to be a most common symptom in cranial tumours and meningitis. Dr. Allbutt argues most strongly that it results from a true primary neuritis of the optic nerves, and is not to be explained either by a neurosis of the sympathetic within the skull deranging the cerebral circulation, and pressure, which is the theory of Benedikt, or by Wallerian atrophy from injury to the hypothetical centres of vision in the hemispheres, which is the theory of Lancereaux. The entire absence of increased temperature, especially of increased evening temperature, in those cases, would not support the inflammatory theory, and the fact that in case No. 6, though sight was utterly destroyed by cancer at the entrance of the nerve, yet that no atrophy was taking place in its fibres, would not support the theory of atrophy. It seems to me that it must be regarded as one of the *progressive* degenerations of nerve tissue, of which the number continues to multiply the more closely the diseases of the nervous system are studied. General paralysis, locomotor ataxy, Duchenne's paralysis, are examples. I have no doubt that many of the cases of ordinary insanity will be found to depend on a similar process affecting the cells of the grey substance alone. A case that steadily passes from maniacal excitement into weakmindedness, then into dementia, and then into the most complete absence of all the ordinary mental manifestations, the patient living the life of a congenital idiot, may often depend on such a process. Many cases of cerebral exhaustion and brain atrophy may, I think, be regarded as of this class.

All those tumours were cancerous except that of T. G. and F. M., the former of which was fibrous, and consisted of an increase of the nerve connective tissue, and the latter the result of tissue degeneration of the nerve fibres, with calcareous deposition following.



So far as any deductions can be come to from those six cases they would be something of this kind :—

1.—That irritability and loss of self-control, and a change of disposition, are the first mental symptoms of those tumours of the brain which directly produce morbid psychosis.

2.—That the depression present seems to result from the patient's knowledge of his probable incurability, and is natural therefore.

3.—That a blunting of the whole of the mental faculties soon comes on, and gradually passes into coma.

4.—That tumours growing slowly at the base of the brain may, by pressure, cause portions of the grey and white substance of the convolutions to pass through small openings in the dura mater, to imbed themselves in the cranium, and so form true herniæ of the brain.

5.—That tumours growing in the brain have three distinct effects on the brain structure. 1st, they create an irritation tending to ramollissement in the nerve substance with which they are in contact, from their first appearance. 2nd, they cause pressure on distant parts, which in its turn causes an alteration of the structure and nutrition. 3rd, they set up *progressive* disease and degeneration of certain parts of the nerve structure, the true nature of which is as yet not very well known, but it seems to be in some way directly connected with the essential nature and constitution of all sorts of nerve substance, whether cells or fibres. Its results pathologically are—an increase of the connective tissue of fatty matter, in the form of granules, and enlargement and thickening of the coats of the blood-vessels, but all these seem to be secondary changes.

6.—That there is a distinct and strong analogy between the symptoms, mental and bodily, produced by such large tumours, and those of general paralysis, which is the type of progressive degenerative diseases of the nervous system, inasmuch as it affects the brain, cord, sympathetic ganglia, and retina.

7.—That such cases would seem to hold an intermediate place, so far as mental symptoms are concerned, between acute inflammation of the cortical substance and blood poisonings on the one hand, and hereditary insanity on the other, the mental characteristics of the three being represented by delirium, irritability, and delusion respectively.

(To be continued.)

*The Madmen of the Greek Theatre.*—By J. R. GASQUET, M.B.

## II.—ORESTES.

I may safely assume that anyone who chooses can now acquire some knowledge of the outlines of the story of Orestes, thanks to the admirable "Classics for English Readers," recently published; and I, therefore, propose only to dwell upon such points as have a more special interest for us.

The first great tragic poet, Æschylus, composed, towards the end of his life, three plays, which make up the trilogy of the Oresteia, and which relate "the triumphant return of Agamemnon from Troy, his treacherous murder by his faithless queen, the just and heaven-directed vengeance of his son Orestes, returning from exile to claim the throne and to slay the guilty usurpers, Clytemnestra and Ægisthus, the subsequent remorse and madness of the avenger, his expiation and judicial acquittal by the aid of Apollo and Pallas."\* Before passing on to the latter part of this story, which alone in strictness concerns us, I cannot help remarking on one point with which all modern readers of Æschylus are struck. Orestes is the last heir of an accursed house, and bears upon his devoted head the accumulated burden of his parents' and forefathers' crimes. We may have cast far from us the notion of a divine vengeance visiting the sins of the fathers upon the children; and yet—*naturam expellas furcâ, tamen usque recurret*—the same idea is borne back to us to-day with greater force than before. The revolutions of modern history have set before us more vividly than ever the hereditary folly and misfortune which seem always to attach to such families as Hapsburgh or Bourbon. Modern science, again, is but now beginning to show us how fatally the minutest particulars of mental weakness are inherited, and how a Providence visits the excesses or violence of a father on his children in a far more terrible manner than any imagined by poet or sage of old, and which his offspring can expiate, not by one great deed, but by the more heroic course of a life-long moral discipline and self-restraint.

But to return to Orestes. We will suppose him to have undertaken his journey to his father's grave, where he meets

\* "Paley's Æschylus," Introd. to Agamemnon.

his sister, and gives the first account of the motives impelling him to the deed, in what Paley justly calls "a long and very difficult soliloquy." In this, while he mentions his political and personal reasons for avenging his father's death, and freeing his people from the murderer's yoke, he gives the first place to the commands of Apollo, who had threatened him with fearful penalties in case of his not fulfilling the duty of revenge. The chief of these is, that he will be subjected to the visitation of the Furies, thus described —

"A gloomy vision of the powers below,  
And madness, and vain terrors of the night,  
Vex and torment all those who plainly see,  
If in the night they ope their wakeful eyes."

The mere enumeration of his motives for action seems to imply some wavering in the purpose of Orestes; and his mind is only finally steeled against pity by his sister's prayers (how true to nature is this!); so far Schlegel is not quite correct in saying that "the conflict between feelings the most sacred does not directly manifest itself until after the commission of the deed;" but how different from the irresolution and delays of Hamlet!

The Oresteia represents an idealized *vendetta*, such as is bred only in rude and lawless times, and has survived, almost to our own day, in the highlands of Scotland, Corsica, or India; while Hamlet is the civilized man, whose revenge, undignified by any general dictate of religion or custom, is hampered by the restraints of law and order.

The horrible deed is at last done, and justice is satisfied; and then, agitated by contending emotions, Orestes feels that his reason is failing, and describes his state to the Chorus in the following lines:—

"I warn you, for I know not what the end may be,  
I am as one who drives his horses off the course,  
So do my straining feelings master me, and bear  
Me where they will: and in my very heart  
Fear is prepared to sing, and madly dance.  
But while I yet am sane, I publish to my friends  
That I my mother not unjustly slew."

He ends by telling the Chorus that he is going at once to the temple of Apollo as a suppliant, to purge himself of the guilt of his mother's blood. After an uncertain interval, the Chorus strive to reassure him, but he breaks out with a cry that he sees the Furies in their dusky robes, and with many snakes twined in their hair. The Chorus try to soothe him, by asking

—“What are these fancies?” and he replies, that to him they are no fancies, and cries out—“O, King Apollo, now they swarm, and from their eyes the gout of blood drop down.” Then, with one final sentence—

“You see them not, but I see them full well,  
They chase me, and I may not longer stay,”

he rushes from the stage, and the play of the Chœphori ends.

It is probable that the Furies actually made their appearance on the stage, although not in such a position as to be visible to the Chorus; this may seem to justify Orestes' terror, yet we cannot fail to note that the whole scene has been copied from the beginning of an acute attack of insanity—the warning that his reason is about to fail, the dialogues between Orestes and the Chorus, and his finally rushing from the stage, if we allow for the inevitable compression of a drama, must all have been drawn from real life.

The following play, the Eumenides, opens at the shrine of Apollo at Delphi, where the hero has taken refuge. His relentless pursuers have been checked for the time, and are sleeping in a circle round him. Apollo appears to his votary, and bids him fly to the temple of Pallas at Athens, where he will be finally set free from his persecutors. The Furies are aroused by the spectre of Clytemnestra, and follow him, tracking him, like hounds, by the scent of blood. They find him at the feet of the statue of Athene, and chant over him their “binding hymn,” of which I have spoken before, as having the weird refrain—

“Over the victim chant this phrase,  
Madness, mind-destroying raving,  
A hymn of the Erinnyes, reason-chaining.”

The horror of the play rises to its climax at this point; Apollo and Athene intervene to obtain for him a fair trial, after which he is acquitted; but nothing further to our purpose occurs.

If I were not following an eminent critic,\* I should hardly venture to say that the Erinnyes of Æschylus seem to me far superior, as a matter both of art and of morality, to the witches in Macbeth. The grotesque element, which Shakespeare derived from the notions of witchcraft current in his day, is completely absent from the Eumenides of the old Greek tragedian. They are simply the impersonations of the

\* St. Marc Girardin : Cours de Litterature Dramatique, Lect. 20.

voice of conscience; and they need for acting upon their hapless victim no caldron, or witchbroth, or magical apparatus, but simply to recal to him the blood-guiltiness of which he is but too conscious. Let us look at it from this point of view, and we shall see that the tragedy of Orestes, as represented by Æschylus, loses its preternatural character, and comes within the scope of our own experience and sympathies. For us in particular, one point has a special significance; it does not seem to have been noticed by literary critics, that Apollo threatened Orestes with the very penalty in case of disobedience—pursuit by the Furies and madness—which actually befel him when he obeyed; and yet here is the turning-point of the whole Æschylean drama.

The history of the son of Agamemnon was so deeply interesting to the Greeks because it was based upon one of those apparently inevitable conflicts between two moral principles, which occur in real life. Orestes is the type of the religious man upon whom some terrible duty seems fatally to devolve. He is straitened on either side: to do, or to refrain from doing, seems to be wrong or base; he decides on action, as such an one would, with the less hesitation because he relies upon the divine command, but, after the deed, all before him is dark, and he suffers from remorse agonies as great as a Hamlet endures from irresolution, and peace comes to him only from the same divine source whence he learned his duty. Considered thus, the story of the hapless Orestes comes home to us as strongly as it ever did to Greek of old; and the reaction which will come to many religious minds after fulfilling resolutely some most painful duty, and the powerful influence which prayer—and prayer alone—has to assuage their sufferings, are the morals which we, in particular, should draw from the Orestes of Æschylus.

When we turn from Æschylus to Sophocles, we see at once the fundamental difference between the two poets. The works of the elder tragedian are like some fresco of Michael Angelo's, massive and awful; while a play of Sophocles is like a painting of Raphael's, in its perfect harmony and grace. But I have no excuse for dwelling on his version of the tale of Orestes, because he has chosen to represent him as one executing a divine command, "with no compunctions of conscience either before or after the deed."\* I shall have other

\* Schlegel. I regret that, in the last number, I should have said, by a slip of the pen, that Orestes' madness was portrayed by the *three* great tragedians.

opportunities of showing how Sophocles could delineate insanity, and my next task will be to analyse the account of Orestes as given by Euripides. It has been well said that "Euripides alone had the courage to lower tragedy, if we may so speak, to the sphere of purely human action," \* and it is therefore natural to expect that he would dwell at considerable length upon a subject so much within his scope. But so abundant is the material afforded by his tragedies, that I must reserve its examination for a separate paper.

*(To be continued.)*

*Illustrations of the Influence of the Mind upon the Body in Health and Disease, with especial reference to the Imagination.* By DANIEL H. TUKE, M.D., M.R.C.P., late Visiting Medical Officer to the York Retreat.

*(Continued from vol. xviii., p. 31.)*

### III.—THE INTELLECT.

(I.) *The Intellect may, by its action on the voluntary muscles, cause (a) regular contraction and relaxation; (b) excessive contraction: Spasms and Convulsions; (c) loss of power: Paralysis.*

Before proceeding to illustrate these several states, we wish to refer to the term Imagination, which, in its various significations, is directly or indirectly concerned with the greater part of the phenomena comprised under the Influence of the Mind upon the Body.

The term is often used simply in the sense of active memory—Recollection. Thus we sometimes speak of a certain taste being imagined, that is recalled; but more usually it is applied, as by James Mill, to those ideas or clusters of ideas which, in their combined form, have not at any time been present to the senses; or to the separation of classes of facts into their constituent elements, and combining them afresh, so as to form unreal representations, or scenes which have no existence—the sense in which Abercrombie employs it. If we combine Memory, the faculty by the operation of which we form an idea or image which is, and Imagination, the faculty by which we form an idea or image which is not, a copy of a previous impression, we

\* Paley. Preface to *Æschylus*.

may conveniently speak of recollective and creative Imagination. In the former, to employ Professor Laycock's terminology, "substrata are re-awakened into activity by affinitive impressions, and it follows the law of association of ideas;" in the latter, "forms and successions of events, not to be met with in the external world, may be developed." Common to both forms is the presence of an idea not immediately excited by any material form answerable thereto. As contrasted with the wide medical use of the word to which we shall shortly refer, this state might be termed Imagination proper. Nor would this be inconsistent with its derivation. *Imaginatio*, or *Imago*, a re-presentation to the mind, really means an imitation (*imago ab imitatione dicta*, Festus), and is traced back to *εἶγμα* (from *εἶκω*, to resemble), an image. Tacitus uses *imaginatio* in the above sense. *Imago* is employed by Virgil to signify a mental image or likeness:—

"Obstupui : subiit cari genitoris imago."

Both *imago* and *imaginatio* are used in the sense of dreams, the former by Ovid, "*imago noctis*," and the latter by Suetonius, "*imagines somniorum*." As a form, it is employed by Virgil:—

"Ubique pavor et plurima mortis imago."

*Imago* is used by Plautus to signify the impression made upon a seal: a favourite metaphor for mental images.

The Greek synonym of *imaginatio*, *φαντασία*, from which our words Fancy and Phantasm are derived, signified the beholding of objects by the power of Fancy, or creating new objects by the imagination. Quintilian, interpreting the word as used by Aristotle, says "per quas, imagines rerum absentium ita representantur animo, ut eas cernere oculis ac præsentibus habere videamur." This is Hallucination, answering to our Phantasm, and not Fancy as now employed, which does not go beyond an exaggerated degree of imagination—creating what is "furthest removed from nature, fact, or sober reality" (Bain).

The Imagination, which in its broad medical sense is, when properly understood and guided, a complex mental power of the greatest interest and importance, must be considered under this section, although passing insensibly into emotional states.

With this form of Imagination are closely associated Expectation, Belief, Faith, Imitation, Sympathy and Hope, some of these states involving the feelings more than others. The

most superficial examination of the sense in which the term "Imagination" is employed by metaphysicians on the one hand, and popularly and medically on the other, will reveal the wide difference which exists between the two. In truth, as regards the present inquiry, it signifies, in popular and medical language, that a man imagines certain (bodily) phenomena to have occurred which have not; or it is meant that certain bodily phenomena which really have occurred, are due to no other cause than that he imagined they would. The signification of the term contained in the first clause is too often assumed to be the whole truth. That of the second clause is almost, if not altogether, lost sight of. Because effects are produced and cures performed by means of a mental condition called the Imagination, it is constantly assumed that these results are imaginary, in other words, that they are "all fancy." This is much to be deplored, and one of the objects we have in view is to dispel, as far as possible, so mischievous an error. It is generally implied that these phenomena are of a merely functional, subjective character, more or less dependent on the state of the mind, more especially the Will, and that a change of mental condition has been naturally followed by a change in the phenomena, although apparently physical. Such is the broad definition of the Imagination, as it presents itself to the mind, when employed in reference to medical facts of every day occurrence. This is what the orthodox medical practitioner means, as he complacently smiles, or is indignant, when the success of his heterodox rival is dinned into his ears, and he asserts that it was all the effect of the Imagination; and, in this sense, he is understood by his assailant. But the fact remains, and because it remains, and cannot be really explained away, it must be explained. The essential must be separated from the accidental, and utilised for therapeutical purposes. It matters little to the patient by what name the remedy is called, whether "Imagination," or some of the many "pathies" of the day. It is emphatically a case in which "a rose by any other name will smell as sweet." But to the philosophical practitioner it ought to matter a great deal; it ought to be a question of exceeding interest.

It is obvious, then, that such signification of the term is widely different from that in which it is employed by metaphysicians and (yet more so) by writers like Mr. Ruskin, who assigns to it a deeper meaning. On analysing the mental states comprised under the medical and popular use of the



term, it will be found that the Attention is strongly directed to a part of the body with which certain phenomena are associated, that the ideas most vividly presented to the mind are in direct relation to them, and that the force of these ideas is intensified by accompanying states of mind already referred to—Expectation, Hope, or Faith. When a person on swallowing a bread-pill, in the belief that it possesses aperient properties, is purged, it is said to be Imagination; the mental condition present yielding, on analysis, a definite direction of thought to the intestinal canal; such leading idea exciting the same peristaltic action as would have been induced by castor oil. The force of this current of thought is augmented by Expectation. The other day a lady nurse at the Plymouth Hospital told me of a patient in one of the female wards, who was much disconcerted at the doctor having left the hospital without ordering an aperient pill, as he had intended to do. The nurse procured a bread-pill, and satisfied her mind. Next day she found, on inquiry, that it had answered its purpose satisfactorily. Again, I hold a ruler in my hand, and point it to a painful region of the body of a patient, who entertains the opinion that I am about to relieve the pain. The patient imagining that the ruler will be the means of curing her, believes in a force which does not exist—a curative power passing from the ruler to the body, and is relieved. That she is relieved is no Imagination. What cured her? Merely to say it was the Imagination is no solution of the problem. What really happened was that her attention was arrested and forcibly directed to the part, the prominent idea being the firm conviction that the morbid symptoms would pass away. In other cases the fixed idea may be, on the contrary, that certain phenomena will occur; that there will be pain, or redness of the skin, or loss of muscular power, and should these supervene, we say, as before, it was due to the Imagination. This medical use of the term has for its basis that thinking upon an object which, as Dugald Stewart points out, is used by Shakespeare as synonymous with the Imagination, when he speaks of “thinking” on the frosty Caucasus, the “apprehension” of the good, and the “Imagination” of a feast. It is the “conception” of Stewart himself. “The conception of a pungent taste produces a rush of saliva into the mouth; the conception of an instrument of torture applied to any member of the body, produces a shock similar to what would be occasioned by its actual application.” This is recollective

Imagination, and merely involves the presence of a mental image of an object not present to the senses, but in the wider medical use of the word it becomes, as already stated, more complex, although by no means embracing the Imagination of those metaphysicians, with whom (Stewart, for example) it includes, not only conception or simple apprehension, but abstraction, "which separates the selected materials from the qualities and circumstances which are connected with them in nature, and Judgment or Taste which selects the materials and directs their combination." To these powers the above-mentioned metaphysician adds, Fancy.

Mr. Ruskin pronounces this definition meagre, and says the very point is missed, for he omits from it the power of prophecy, which is the essence of the whole matter. The composition which Stewart regards as Imagination has no part or lot in it. Such a composer only copies the remembered image; with Ruskin, it is a penetrating faculty, reading truths discoverable by no other faculty, as well as a combining associative power, which creates new forms, and one which regards simple images and its own combinations in peculiar ways. It is greatly dependent on acuteness of moral emotion. In its highest form, it is "altogether divine," and out of an infinite mass of things, seizes two that are fit for each other, and are together right, although disagreeable alone. "It is the grandest mechanical power that the human intelligence possesses, and one which will appear more and more marvellous the longer we consider it." It is an operation of mind "altogether inexplicable," and can only be compared with chemical affinity. But it is not necessary to refer further to this aspect of the Imagination; enough has been said to show that the various significations attached to the term must not be allowed to mislead us, and that we are not concerned with the faculty understood in the Ruskinian sense, that in which it is used in reference to the painter, the faculty "necessary for the production of any great work of art." Fancy a country practitioner who has had a truant patient cured by a globulist, and has retorted that he or she was relieved only by the Imagination, being informed that it was by the "power of prophecy;" that the method, so far from being contemptible, was "altogether divine," and, in short, the "grandest mechanical power" belonging to man's intelligence! The only point in which he could agree with Mr. Ruskin would be that it was, indeed, "altogether inexplicable."

With these remarks on the Imagination, we proceed to consider the influence of the Intellect upon the Body in causing—

(a) *Regular Contraction and Relaxation.*

The influence of an intense and exciting idea or thought in inducing well-marked movements, is admirably illustrated in the description of two characters—one real, the other, indeed, fictitious, but sketched by the hand of a master, equally true to nature.

Sir Philip Francis is described by his biographer as “pacing rapidly forward *as if to pursue a thought*. He would then suddenly turn short round, draw himself up to his full height, and ‘with a sweeping of the arm’ evolve some epigrammatic sentence or well-rounded quotation. Even his own family, habituated as they were to the sudden interruptions of the measured tread, with which he loved to pace up and down the utmost length that a small suite of rooms would allow him, were sometimes startled by the vehemence of the outbreak, and strangers were absolutely electrified” (“Life,” vol. ii., p. 454).

The other character, Felix Holt, is thus graphically described:—“His small, nervous body was jarred from head to foot *by the concussion of an argument* to which he saw no answer. In fact, the only moments when he could be said to be really conscious of his body were when he trembled under the pressure of some agitating thought.” To some extent, no doubt, in both these instances, the intellectual element was followed by emotional excitement, which intensified the character of the external commotion.

The influence of Expectation (or Expectant Attention) upon the facial muscles, is well exemplified in the appearance they assume when a gun is about to be fired. The person so affected does not expect that anything is going to happen to himself, but there is a certain involuntary nervous twitching the Will endeavours to repress, which anticipates the instinctive contraction of the muscles around the eye, actually occurring when a sudden explosion or shot suggests danger.

We see a different form of Expectation exhibited in the common experiment of discovering the time of day, by holding a coin or ring by a hair or silk thread suspended between the finger and thumb in a glass, against the sides of which it is expected to beat the time of day. As is well known, it

often proves successful, the unconscious action of the digital muscles responding to the Idea or Expectation present in the mind of the person making the trial. I was not aware that this, with a slightly different object, had been an old experiment, until looking recently at Lord Bacon's Works I found the following:—"It is good to consider upon what things Imagination hath most force; and the rule, as I conceive, is that it hath most force upon things that have the lightest and easiest motions. . . . Whatsoever is of this kind should be thoroughly inquired into. . . . There would be trial made of holding a ring by a thread in a glass, and telling him that holdeth it, before, that it shall strike so many times against the side of the glass and no more." He adds an experiment depending for its success on the same principle, that of "holding a key between two men's fingers, without a charm, telling those who hold it, that at such a name it shall go off their fingers." Bacon concludes thus:—"Howsoever, I have no opinion of these things, yet so much I conceive to be true: that strong Imagination hath more force upon things living, or that have been living, than things merely inanimate; and more force likewise, upon light and subtile motions than vehement or ponderous" ("Nat. Hist.," 957).

From the time of Bacon to that of Chevreul no one, so far as we know, investigated the subject in a philosophical spirit. The latter, finding that a pendulum composed of a flexible wire and heavy weight, would oscillate when held by the hand over certain bodies (*e.g.*, mercury), although the hand was fixed and motionless, placed a sheet of glass between the mercury and pendulum when in motion, and found its oscillations uniformly impeded and at last arrested. Feeling that he had not discovered in the quicksilver the real cause of the motion of the pendulum, he fixed the hand from which it was suspended, instead of merely the arm. The result was that the pendulum did not move at all, whether, or not, the glass intervened between it and the mercury. He justly concluded that an unconscious muscular movement explained the oscillations which had puzzled him, and had a vague remembrance of being in "*un état tout particulier*" when his eyes followed them. He next took the precaution to have his eyes bandaged, and found that this also had the effect of preventing any action of the pendulum.

His careful investigations resulted, therefore, in the conviction that, although a pendulum suspended from the hand

over certain bodies, moves, and performs oscillations which increase more and more in extent, this motion is diminished and at last arrested, if glass, or anything else, be interposed between the pendulum and the body over which it oscillates, with the *expectation* that it will have this effect. Further, it is arrested the moment the hand itself is supported, or if the eyes of the experimenter are bandaged; the reason of the latter being that the guiding sense of sight, so essential to motion when the Will is in abeyance (as exhibited in paralysis), has been taken away.

Nothing can more clearly illustrate than the above experiment the influence of what is popularly called the Imagination, and which resolves itself in such cases into Expectation. It forms an *experimentum crucis* which demonstrates the true principle at work in a large number of the cases given in this book; a principle which, when called by its right name, is by no means to be despised. For the pendulum substitute a limb contracted from functional disorder, and the application of the same law becomes practically useful. The operation of the Imagination is reduced to what we may call simple *imaging*, and can be intensified by other psychical forces.

The sympathy of the whole frame with the prominent ideas of the Mind, by which one muscle or organ, when aroused to action by mental states, excites other muscles or organs, should not be overlooked. The term so applied has the authority of John Hunter, who lays down the law that "every part of the body sympathises with the mind, for whatever affects the mind, the body is affected in proportion" (Works, vol. iv., p. 167). This homogeneity between the actions of the muscles is exhibited whenever one muscle is excited by mental activity. When ideal, it follows the course which would have been pursued in reality. As in presence of an actual scene, so in Imagination, when a person vividly imagines another in danger—say from the fall of a heavy weight—how the entire attitude assumes the form of averting the impending danger! Reason tells him it is altogether useless to move a single muscle, but not only does the law of Sympathy impel him to gesticulate, but forces the whole system into harmonious action—the eye, the facial muscles, the arms, and the legs, are thrown into violent action. When the scene is purely the work of Imagination the effect is ordinarily feeble in character; but when a real scene is witnessed at too great a distance to render assistance, while the horror depicted in the countenance is merely the facial ex-

pression of the emotion, the motions of the arms, trunk, and legs are the automatic representations of the forms they would actually assume if rendering help on the spot. Thus, from the wonderful fellow-feeling established by nature between mind and mind, body and body, or between the various parts of the mental and bodily constitution of an individual, the Imagination, "sending electrical thrills through every nerve of the body," stirs, through the operation of Sympathy, the whole being to its depths; the nearest stations being in communication with the most distant outposts, and the frame changing now with its own and now with another's condition, as reflected in its own chambers of imagery.

The influence of Attention, pure and simple, upon the voluntary muscles (usually muscular sensations) is not so striking as that of some of the foregoing mental states. Directed to the pharynx, it usually occasions deglutition. If we are engaged in swallowing food it does not assist the regular action of the muscles, but disturbs it; the impression made by the presence of a morsel in the gullet, and that derived from the Attention, not being necessarily consentaneous. Attention or the direction of thought to a part does not affect the muscles under the control of the Will so easily as those which are not; and it is the semi-voluntary character of the pharyngeal muscles which renders them, among the striped muscles, the most susceptible to its influence. The muscles engaged in articulation are also markedly influenced by Attention, though not so much so as by Emotion. In the pronunciation of words, the embarrassment caused by too long prolonged Attention to the emphasis and the aspirates is familiar to all; and the only remedy then is to pronounce them with as little thought as possible as to their correct enunciation. Thus, a school-boy becomes frequently "pottered" by the teacher's method of tuition, ignoring the operation of this principle, and the more he is ordered to attend carefully to minute shades of difference in his mode of reading or speaking, the more difficult does it become. In stammering, the influence of Attention is well known, apart from those occasions in which it is mixed up with emotional excitement.

Other examples might be given, but these, with the illustrations already brought forward under Expectant Attention, are proofs of the influence of the Attention, directed in a definite manner. In truth, as regards the voluntary muscles, it almost requires the guiding influence of an expectant idea

to induce any well-marked action. Simple Attention to the finger or the foot seems, however, to render it more difficult to keep it motionless. A certain fidgetiness is begotten in the muscles of the part.

(b) *Excessive Muscular Contraction; Spasms and Convulsions.*

Few are the illustrations which will be given of the influence of the Intellect in causing spasms and convulsions. When we treated of the Emotions our cases were abundant, and the difficulty then was in selection rather than collection. A cold and abstract idea, before it generates an emotion, is not calculated to cause excessive muscular contractions.

Mental application, even of a very slight character, may cause a fit of epilepsy. Marshall Hall observes—"Dr. Tyler Smith has related to me an instance of an epileptic girl who experienced an attack whenever she tried to undo a difficult knot in her work, which was tapestry" ("Obs. on Med.," p. 24). Galen mentions a young man, a grammarian, who had epileptic fits whenever he studied hard.

It is, however, when a powerful Expectation is excited that we are most likely to witness spasm or convulsion. To obtain cases in which there is Expectation of the phenomenon only, without the emotion of fear, is, however, a difficult task.

We conclude that in the statement of the French Commissioners on Animal Magnetism that "upon persons endowed with sensitive nerves we have produced convulsions, and what are called crises," the effect was brought about by leading the subjects to expect a certain result. They add, "Animal Magnetism alone, employed for thirty minutes, has produced no effect, and immediately the Imagination has produced upon the same person, with the same means, under circumstances absolutely similar, a very severe and well-characterised convulsion."

The confident assertion that a person (subject to epileptic fits) will have an attack has frequently proved sufficient to produce one. Madame de St. Amour attained great reputation in France within the last half century for the power she exercised over nervous diseases. It is related that on one occasion a young woman was brought to her, when she demanded, "What is your complaint?" "Epilepsy," replied the girl. "Then, in the name of the Lord, have a fit now!" exclaimed Madame de St. Amour. The effect was instantaneous. The patient fell backwards, and had a violent

attack of epileptic convulsions. Without Expectation, the simple thought or remembrance of previous attacks suffices with some epileptics to cause a recurrence of the fit; and still more potent is the recollection of the cause, if the cause has been of an alarming character. Ideal Emotion simply takes the place of the original feeling. In Van Swieten's works is recorded a case of epilepsy which may be referred to this principle; that of a boy who, having been frightened into epileptic fits by a great dog, had a recurrence of the attacks whenever he heard a dog bark.

The mischievous influence of sympathy or imitation is exemplified in the following case which occurred at Lyons. The "Journal des Connaissances Médico-Chirurgicales" (16th February, 1851) treats such occurrences as "excessively rare in the annals of physiology." They certainly are not very frequently reported, but occur more frequently than would be supposed from this circumstance:—In a workshop where sixty women were at work, one of them, after a violent altercation with her husband, had a nervous attack. Her companions pressed round her to assist, but no sooner had they done so than first one and then another fell a prey to the same kind of attack, until twenty were prostrated by it. The contagion appeared likely to spread through the company, but was checked by clearing the room. The reporter in the above journal, in adding that there are few precedents, remarks that history, in fact, scarcely presents more than two, the famous scenes in the Cemetery of St. Médard, and the occurrence in Boërhaave's practice, which is so well known. Illustrations of the pernicious influence of this principle in connection with witnessing or reading the reports of atrocious crimes will occur to the reader, and need not be detailed here, as they do not constitute such good examples of bodily effects from sympathy as those just referred to, though striking evidences of a blind instinct depending for its beneficial operation upon the contest of reason and the moral sense, but, lacking these, leading simply to a mischievous reproduction of acts, the images of which are impressed on the Mind through one or other of the senses. From what but the unreasoning operation of the law, exerted by an association of ideas, could it happen that, when a sentinel of Napoleon's army committed suicide by hanging himself in his sentry-box, several immediately followed his example when they became his successors in the same box? What a practical commentary on this imitative principle of the mental constitution, that, to



prevent further mischief, Napoleon found it necessary entirely to destroy the box by fire. Such facts demonstrate in strong colours the duty of not neglecting the idiosyncrasies of men and women as regards the association of external forms and internal images. Often what we call idiosyncrasies are the workings of a universal principle acting exceptionally in consequence of the absence of certain modifying influences—a principle underlying a thousand acts, unsuspected or unrecognised until exposed by the removal of its ordinary safeguards.

Cases of spasmodic action of the pharynx, more or less assuming the form of hydrophobia, and of mental origin, are more likely to arise from a powerful emotion than an intellectual act, and have been given under that head, but it is important to remark here that, as pointed out by many medical writers, but by no one so forcibly as by Rush, the mere *mention* of water will in a hydrophobic person induce the recurrence of the symptoms. The image—the Imagination—causes the same effect as the attempt to swallow water. Professor Laycock would say that this effect may be produced whether there is or is not an Idea present in the Mind, that is to say, whether or not the changes by which Ideas are presented to the consciousness reach it or not; that which immediately precedes the hydrophobic gasp being the *ideagenous* and *kinetic* changes in the cerebrum. “The cerebral nerves being analogous to the posterior spinal nerves, and the encephalic ganglia analogous to the spinal ganglia, the spectrum of the cup of water will traverse the optic nerves and enter the analogue of the posterior grey matter in the brain, causing changes (*ideagenous* changes) corresponding to the idea of water; thence the series of excited changes will pass over to the analogue of the anterior grey matter, exciting another series (*kinetic* changes), by which the necessary groups of muscles are combined in action.” (“Brit. and For. Medico-Chirurgical Rev.,” Jan. 1845). Under this section fall those cases of cataleptic rigidity which occur in certain susceptible states of mind from the influence of Expectation. In the following illustration the effect of what is usually called Imagination, and is here synonymous with Expectation or Expectant Attention, is admirably exemplified apart from the particular muscular affection which resulted. “I had heard much,” says Mr. Braid, “of an interesting case of a highly susceptible lady, so susceptible to ordinary mesmeric

passes that she might be sent off into the sleep by the most simple attempt to produce it, and so sensitive of the influence of magnets that she was quite uncomfortable if a magnet were near her in any room, and in the dark she could point out any part of the room where a magnet of very moderate power was placed, from her seeing the light it produced streaming all around it. I was kindly invited to spend an evening at this lady's house to afford me an opportunity of seeing and having more particulars of these wonders. I had the pleasure of sitting very near the lady, and of enjoying a long and interesting conversation with her and her husband, and no manifestation whatever took place during the whole time, until after I had explained my views regarding the power of an act of *fixed attention*, directed to any part, in modifying the natural condition of the part so regarded. She was requested to direct her fixed attention to her hand, and watch the result, without anything being done either by her husband or any one else. She did so, and very quickly fell asleep, *and the arm to which she had directed her attention became rigidly cataleptic.*" ("Magic, &c.," 1852, p. 82.) Mr. Braid, it must be added, had a fourteen-pound-lifting magnet, with the armature unattached, in his side pocket next to the lady.

(c.) *Loss of Muscular Power ; Paralysis.*

The simple belief or conviction that a muscle cannot be contracted or relaxed is sufficient in a sensitive person, or in one in whom this sensitiveness is induced, to cause temporary loss of power. It is referred to the Imagination ; in other words, the effort to carry out the desire or will is paralysed by the absorbing conviction that it will be ineffectual. The principle is the same (although the result differs) as that which we have already considered when speaking of the effect of a conviction in inducing muscular action. Dr. Carpenter gives two reasons why an action which can be ordinarily performed with ease may become absolutely impossible—"first, if a man's mind be entirely possessed with the idea of its impossibility ; or, secondly, if while his judgment entertains doubts of success his attention be distracted by a variety of objects, so that he cannot bring it to bear upon the one effort which may alone be needed" ("Human Physiology," p. 793).

Professor Bennett records, on Professor Christison's authority, two cases which appear to be illustrative of the influence of a mental state unconnected with emotion or with organic

disease upon the power of locomotion. "The first was that of a gentleman who frequently could not carry out what he willed to perform. Often on endeavouring to undress he was two hours before he could get off his coat, all his mental faculties, volition excepted, being perfect. On one occasion, having ordered a glass of water, it was presented to him on a tray, but he could not take it, though anxious to do so, and he kept the servant standing before him for half an hour, when the obstruction was overcome. In the other case the peculiarity was limited. If, when walking in the street, this individual came to a gap in the line of the houses, his will suddenly became inoperative, and he could not proceed. An unbuilt-on space in the street was sure to stop him. Crossing a street also was very difficult, and on going in or out of a door he was always arrested for some minutes. Both these gentlemen graphically described their feelings to be 'as if another person had taken possession of their Will.'"—"The Mesmeric Mania of 1851," p. 16.)

Dr. Gregory gives the case (a very common one) of Mr. W—, an officer, "biologised by Dr. Darling, whose muscular motions were controlled in every possible way. He was rendered unable to raise his hands or let them fall; he was made unable to move one while he could move the other; unable to sit down or to rise up; or to take hold of or let go an object."—"Letters on Animal Magnetism," p. 353.)

Actual paralysis from hard and prolonged intellectual labour should here be noted as a not infrequent result. In many of the cases which come under our notice there are other causes at work, such as anxiety, disappointed ambition as to literary fame, impecuniosity, &c., and no doubt it would be difficult to find a case of purely intellectual paralysis. At the same time excessive exercise of the reasoning powers must be accompanied by danger. It would be interesting to have some estimate of the number of literary men who succumb to paralytic affections, although, for the reason stated above, it might prove very fallacious.

(II.)—*The Intellect acts upon the Heart and non-striated muscles with a power similar to that which it exercises over the voluntary or striated muscles, causing contraction, spasm, and paralysis.*

The direction of thought to the Heart has, very generally, an embarrassing influence upon its regular action. It is true that emotional states exercise a much greater and more

instant influence; but simple attention to its beats is usually attended by slight, and occasionally by painful, cardiac disturbance.

From the same cause medical students, when their thoughts are directed by their studies to this organ, are frequently sufferers from this disturbed action. Anxiety no doubt comes in here to aggravate the disorder, and has been referred to under Emotion. Peter Frank himself, even when in advanced life, is stated by Romberg to have been attacked while devoting especial attention to the subject of heart disease, during the preparation of his lectures, with such severe palpitations, accompanied by an intermittent pulse, that he felt assured he was affected with an aneurism; the symptoms only ceased after the completion of his labours, and after he had enjoyed the relaxation and diversion of a journey ("Diseases of the Nervous System," vol. ii., p. 6).

It is a common remark that medical men frequently die of the disease to which they have devoted special attention. When the coincidence occurs, the two circumstances are likely to be placed in the relation of cause and effect without sufficient reason. There is nothing, however, improbable in the popular impression; for a very slight symptom referable to the organ especially studied by the physician, would concentrate his attention upon it, and would be likely to aggravate any previous mischief, and in the case of the heart, induce irregular action and ultimately hypertrophy, or some other decidedly organic affection. And yet, probable as this seems, do not a large class of facts appear difficult to reconcile with that supposition? How explain the impunity with which thousands of hysterical persons fancy and firmly believe that they have a particular disease, dwell anxiously upon it night and day, and yet escape without any organic disease whatever? What proportion of medical students have heart disease out of those who, after having their studies directed to cardiac maladies, fancy they are themselves affected? A small one, we believe. Dr. Armstrong said in one of his lectures, "You will seldom be alarmed at hypochondriasis when it occurs in young subjects. I have, since I have lectured here, had the honour of curing some of the pupils of extraordinary and dangerous organic diseases by very slight means. I have cured an aneurism of the aorta by a slight purgative, ossification of the heart by a little blue pill, and chronic disease of the brain by a little Epsom salts."

It must therefore be allowed that while attention to the

action of the heart embarrasses its action, and while, if disease be actually present, it proves mischievous, there is very little evidence to prove that in a healthy organ it would induce more than functional disturbance.

*Blood-vessels.*—Sir Henry Holland, in the Essay on the “Effects of Mental Attention on Bodily Organs,” observes that he has reason to think that “hæmorrhage (as in the simple case of epistaxis) is often increased by Attention, but whether by excitement to the heart’s action or by direct influence on the vessels of the part cannot easily be decided. Stimulated attention, moreover, will frequently give a local sense of arterial pulsation when not previously felt, and create or augment those singing and rushing noises in the ears, which probably depend on the circulation through the capillary vessels.”

The singular phenomena of stigmata may be fittingly referred to here, for so far as they are genuine and not caused by mechanical irritation they arise from the mind’s influence on the capillary circulation through the vaso-motor nerves. No one has treated the subject in a more luminous manner than M. Alfred Maury, who forcibly observes that ecstatic mysticism, including these remarkable appearances, is the most striking proof of the influence of the Imagination upon the body, and is truly a miracle in the sense of being one of those marvellous effects of the laws of thought, whose secret escapes and whose extent confounds us. He admits the facts of stigmatisation (after making the allowance he considers necessary for imposture and exaggeration), and explains its occurrence, so far at least as the reference of the phenomena to a certain group of psycho-physical facts may be regarded as an explanation, by a reference to the influence of dreams upon the skin. In mentioning those cases in which persons have dreamed that they received blows or wounds, and in the morning have found marks of inflammation on the body, and which sometimes, in the course of a day or two, become ulcers, he observes that just so with visionaries, “under the power of the Imagination, by the concentration of the attention, the blood is directed to the place where they fancy they are affected.” (“Annales Médico-Psychologiques,” 1855.)

Reference may here be made to the influence of expectation or a dominant idea upon the vessels of the brain in causing *sleep*, and in inducing waking from sleep at a certain time. In many persons, as is well known, and as Sir John Forbes demonstrated, it is only necessary to expect sleep and it super-

venes, while a person impressed with the idea that it will not come may be rendered restless for hours. Dr. Elliotson, in describing a mesmeric case, says, "Mere imagination was at length sufficient, for I one day told her and two others that I would retire into the next room and mesmerise them through the door. I retired, shut the door, performed *no* mesmeric passes, but tried to forget her, walked away from the door, and busied myself with something else—even walked through into a third room; and on returning in less than ten minutes from the first, found her soundly asleep, and she answered me just as was usual in her sleep-waking condition" ("The Zoist," 1846, p. 47). The expectation that a hypnotic effect will be produced by a pill often succeeds when it is perfectly inert; but still more remarkable, the effect of a purgative pill has been rendered *nil*, and comfortable sleep induced in the place of insomnia, by the belief that an opiate has been administered. Such a case is related by Dr. Noble, the pills consisting of Ext. Col. co., gr. viii., and Calomel gr. ij! It is not more remarkable that a person's cerebral vessels should from this cause be affected, through the sympathetic, than that he should faint. The expectation of sleep, or supposed inability to remain awake, acts, as in other cases, by paralyzing the normal inhibitory influence, which, according to Mr. Moore's ingenious theory, is at work when we are awake, and so allows the unrestrained action of the cervical sympathetic ganglia by which the arteries of the brain are contracted, the amount of blood lessened, and unconsciousness induced. Apart from expectation, mental activity causes sleep only when carried so far as to cause fatigue.

On the other hand, what is called "waking at will" must be referred to the influence of an expectant Idea as much as going to sleep. Most persons can ensure waking in the morning at a certain hour, by strongly fixing the attention upon the time desired, just before falling asleep. This affords an excellent instance of mental activity, without the person being conscious of the process, he being in fact asleep at the time the latent idea comes into operation. This familiar fact involves an automatic calculation of the lapse of time. The Fakir before passing into his hibernating trance determines when he shall awake, and strongly impresses upon his mind the day or even the hour when he shall revive; and revive he accordingly does. The late Sir James Simpson, at a meeting of the Edinburgh Medico-Chirurgical Society, referred to a striking case witnessed by three physicians, in which a person

“biologised” was commanded to sleep thirty-five hours, and did so, “with two short intervals of permitted awakening” (“The Monthly Journal of Medical Science,” 1847, p. 486).

In this connection it may be observed that it is often much easier to act automatically, in getting out of bed, when tempted to indulge in further rest, than to bring the Will to act upon the muscles. I wake from sleep, and wish to rest. Reason strongly urges the act. The Will fails; not a muscle moves. Now, if I cease to endeavour to excite movements by volition, and divert my mind to another subject, I find that while thinking of something else, I am on my feet. A parallel case is the ease with which we often remember a circumstance or a name by not thinking of it, but of another matter, after fruitless efforts to recall it by the Will. As I write, a little boy vainly endeavours to remember the tense of a Latin verb. I make him change entirely the current of his thought, and suspend the action of the Will; and the forgotten tense comes back to his memory by automatic cerebral action—the “unconscious cerebration” of Dr. Carpenter. In Macgregor’s “Thousand Miles in the Rob Roy Canoe,” occurs an incident which will illustrate the same principle. He says, “when on the Meurthe three women were seen on the bank of the river, in great alarm, who searched in vain for two boys supposed to have gone away to fish, but missing for many hours.” They eagerly asked Mr. Macgregor to tell them whether he had seen them, and implored him with tears to advise them what to do. “I tried,” he says, “all I could to recollect; but no! I had not seen the boys, and so the women went away distracted, and left me sorrowful. But *suddenly*, when toiling in the middle of a very difficult piece of rock-work, lowering the boat [and therefore no longer trying to remember], *I remembered having seen those boys*, so I ran over the fields after the anxious mamma, and soon assured her that the children had been safe an hour ago.” Such are the involuntary operations of the cerebrum, when assisted by the suspension of the will, as exhibited in these instances; and still more strikingly when in sleep, this unconscious activity, working to a definite end, produces those changes in the relative force of the sympathetic ganglia and the cerebro-spinal system by which the brain is restored to its waking state. Dr. Cuthbert, in a letter to the “Medical Times and Gazette,” November 5th, 1859, on the Ulster Revivals, observes in regard to this subject, that “one of their most remarkable endowments

was the power of producing sleep, and of awaking at a specified time."

*Œsophagus, Stomach, and Intestines.*—The rejection of the contents of the stomach from a purely mental state is well exemplified in an experiment made upon 100 patients in a hospital, and reported by Dr. Durand (de Gros) in his able work "*Essais de Physiologie Philosophique.*" The house surgeon administered to them such inert draughts as sugared water; then, full of alarm, he pretended to have made a mistake in inadvertently giving them an emetic, instead of syrup of gum. The result may easily be anticipated by those who can estimate the influence of the Imagination. *No fewer than 80—four-fifths—were unmistakably sick.* How many of the rest suffered from nausea is not stated. We need not approve of the deception of the *infirmier*; but, the experiment having been made, it is a pity so many people should have been rendered miserable, without good use being made of their discomfort. In regard to misleading patients generally, even *causâ scientiæ*, one of the practical difficulties which the investigation into the influence of the Imagination presents, certainly is the unseemliness of making experiments of this nature, and the danger of sullyng that strict honour which by no profession is more prized or maintained than by the professors of the medical art.

The most trivial matter attaches certain ideas to certain places, persons, and especially articles of dress, to which they cling with a tenacity which is truly surprising, unless the influence of the association of ideas and the automatic action of the brain be considered, and when the image called up is disagreeable, it will haunt the mind grievously, and may at last cause acts over which the will has no longer any control, and which are those of a madman. Locke calls the association of ideas a disease of the understanding, and it may certainly prove as mischievous in inducing bodily and mental diseases, as it is pernicious in the employment of the reasoning powers, and the search after moral truth.

Van Swieten says, "I have seen a man who had taken a sufficiently nauseating draught, not only shudder and be nauseated, but also be frequently purged when he merely saw the cup in which he had taken the medicine;" and adds, "*Sic sola idea fastidiosi remedii renovata purgantibus pharmaci vices supplevit, et totum corpus turbavit.*" He compares this to our thinking of sadness or even feeling sad when we merely



see the *word* sadness, although it has only an arbitrary connection with it.

The efficiency of an ideal purgative in exciting the peristaltic action of the intestines has been already incidentally referred to; the following case well illustrates it, and is the more valuable from being the personal experience of a medical man:—

“Dr. S. all his life had the greatest horror of taking medicine, although fully admitting the beneficial and necessary effects of it, and constantly prescribing it judiciously for others; he consequently never took it. After a certain period of life, however, he began to experience a torpidity of the bowels and all the consequent uneasiness, rendering it apparent to himself that relief could only be obtained by the means he prescribed to his patients, namely, the taking of medicine. After due deliberation, accordingly, and conflict with himself, he decided upon taking some, and imagining that an ordinary dose of salts would answer all the purpose, and be less nauseous than most others, he carefully mixed one and laid it by his bedside at night to be taken in the morning when he first awoke. The proximity of it, however, and the impression on his mind of the horrible dose which awaited his first waking, banished sleep from his eyes, and kept it continually before him. At length, however, he did sleep, and even then the vision did not leave him, but like the haunting phantom of the roasting pig to the slumbering glutton, it assumed various guises and positions to his mind, the difference alone being that his was more purely imaginary, as he had not swallowed the cause of the mental disturbance, which the other had; but suffered from the anticipation. At length, however, he awoke, and so far from requiring the prepared medicine, found all occasion for it removed by an effort of nature, and from that time he declares that he has nothing to do when suffering from torpid bowels but to lay a dose by his bedside at night, and that it as effectually acts as if he had swallowed it” (“Medical Essays,” by Dr. Sealy, p. 64).

(To be concluded in the next Number.)

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*Notes on the Case of Agnes Laing or Paterson, who was tried for Murder before the Circuit Court of Justiciary, at Perth, April 23, 1872.* By J. BATTY TUKE, M.D., F.R.C.P. Ed.

(Read before the Quarterly Meeting of the Medico-Psychological Association, held at Glasgow, May 9th, 1872.)

Mr. President and Gentlemen, I believe a short account of the career and family history of Agnes Laing or Paterson, of her crime and of her trial before the Circuit Court of Justiciary at Perth, on April 22nd, 1872, will be of interest to you on the following grounds:—1st, that evidence of hereditary predisposition was not allowed to be led in her defence; 2nd, in consequence of the difficulty of determining the question as to how much alcoholism may have influenced the commission of the murder; and, 3rd, from the great prominence given to the term Homicidal Insanity by the counsel for the defence.

I will endeavour to lay before you, first, the evidence which was actually adduced, and, second, the evidence which might have been brought forward, and will then ask you to consider to what extent the medical mind would have been influenced by them mutually, and in co-relation.

The report of the trial is taken from the "Fifeshire Journal" of date 25th April:—

Agnes Laing or Paterson was placed at the bar, charged with having, on the 3rd of January, in the house of her husband, Thomas Paterson, carter, Union Street, attacked the deceased, Mary Ann Paterson, her daughter, with a razor or some other sharp instrument, whereby she was mortally injured and soon after died. The prisoner, when asked to plead, said, in a low voice, "Not guilty." Mr. John Rhind and Mr. Millie appeared as her counsel.

Jessie Paterson (no relation to prisoner)—My father is David Paterson, and I live in Union Street. Mary Ann died on the first Wednesday of the present year. That morning I saw her before I went to school. She was then quite well. Her mother was with her, and they went into their own house after that. After they went into the house I heard Mary Ann screaming. I went at ten o'clock to get Mary Ann to go to school with me. I opened the door of the house, and saw Mary Ann lying on the floor. Her mother was standing behind the door with a razor in her hand. Her hands were covered with blood. I went to my father and told him what I had seen, and then went to school.

David Paterson (no relation to prisoner), labourer, Union Street— I recollect the death of the prisoner's daughter on Wednesday, 3rd January. The prisoner and her daughter were in my house, as near as I can say, about 20 minutes past 8 o'clock that morning. The girl appeared all right then. She was about six years old. I noticed nothing unusual about the prisoner when she was in my house. She and her daughter left the house together. After they left I heard the cries of a little girl. Frequently my daughter Jessie went with Mary Ann to school. That morning she came back after going out to go to school, and told me that Mary Ann was lying on the floor with her clothes half on. Mary Ann had not her frock on when in my house. I went into the prisoner's house about ten o'clock. I pushed open the inner door, and saw the child lying on the floor with a pool of blood round about her head. I didn't see the prisoner at that time. On seeing this, I went to the neighbour below, Mrs. Palfrey. I told her to come up, for I thought Mrs. Paterson had killed her child. Mrs. Palfrey came upstairs with me, and we went into the prisoner's house together. When we went in the child was still on the floor, and the prisoner was in bed in the same room. Mrs. Palfrey shook the prisoner, and asked her, "What is this you have done?" The prisoner replied, "Not me, Mary, not me. You drink yersel'." I didn't interfere with the child's body in any way. I observed several cuts on the child's fingers, and a great gash on her throat. I saw a razor lying covered with blood on a chest of drawers, close to the bed on which the prisoner lay. (Shown razor.) This is the razor. It still bears the marks of blood.

Mrs. Palfrey, Union Street, corroborated.

By Mr. Rhind—My exact words to the prisoner were "What is this you have done?" She said, "No me, Mary; no me, Mary. Ye drink yersel'." The second time I said, "What is this you have done; You have done it neatly, now; cutting your bairn's throat." She just repeated her first answer. She spoke sensibly enough.

Jane Low, Kirkgate—I know the prisoner. She was in our shop on the morning of her daughter's death, and purchased a gill of whisky. She had a bottle with her. She took it and the whisky with her. That was a little before ten. I was in the shop from a little after nine. Both prisoner's hands were covered with blood when she was in the shop. She said she had been cutting a bit stick and had cut her hand. She said that without being asked. She didn't appear to have been drinking. If she had been in the shop before I would not have seen her.

Janet Low, Kirkgate—I am the mother of last witness. Mrs. Paterson is a customer of ours. I opened the shop on the morning of Mary Ann's death. I don't remember seeing the prisoner in the shop that morning. She often came in the morning.

By Mr. Rhind—Panel has been a customer of ours since she was married. She paid us very regularly. I recollect seeing her on New Year's Day about nine in the morning. She was quite sober. I don't

remember seeing her after that. I never saw her drink whisky. She had two children beside Mary Ann. They died of measles in August, I think. They were both younger than Mary Ann. The prisoner was very sorry about them. I never saw her ill-use any of her children. I knew Mary Ann, and her mother appeared to be very fond of her.

Inspector Stewart deponed to what he saw when called to the house.

Janet Wilson, sick nurse—I was engaged by the police on the 3rd January to attend the prisoner. I didn't speak to her when I went to the house. She was in bed, and did not speak to me. I washed up the blood and swept the house. She asked for a mouthful of water about two o'clock. I never spoke to her in my life before. She knew me, for she called me by name. She said—"Is that you, Mrs. Wilson? I am very glad you have come to see me." She asked me also where Mary Ann was. I said Mary Ann was all right, and the prisoner remarked, "Yes, she is all right." She asked me, looking at the policeman, who that was, and I said he was waiting on Tom, meaning her husband. She looked at the policeman, and said—"Is that you?" She appeared to know him. A few minutes after this she asked for a glass of whisky. I said I had none to give her. She told me to look into the press for the bottle and give her the glass that was in it, but the press was locked. She talked quite sensibly. The child's body was in a closet off the kitchen, where it was put by the police. The undertaker came and went into the closet. On this the prisoner came out of bed and wanted to get into the closet, but they would not let her. She showed me three scratches on her throat, and said, "Look what Tom did to me. He took the child's life." I said "Don't say that, for God knows you are telling lies," and she replied, "As sure as death Tom did it, not I." I never said anything about the death of the child, and her statement was made quite voluntarily. Her hands were covered with blood, and she looked at them and then washed them. She seemed quite calm, and appeared to know well what she was doing and saying. The police told me I should not have allowed her to wash her hands, but I don't remember whether she said anything about that. She tidied her hair, and went back to bed about 4 or 5 o'clock. After she went back to bed she asked where Mary Ann was. She asked for whisky several times through the evening. I went to Dr. Mackie, and he authorised me to give her a glass of whisky, which I purchased and gave her. During the night she asked for more whisky, but got none. She came out of bed in the course of the evening to look for a white bottle. She found it but there was nothing in it. Another bottle of whisky she could not find was said by her to be in a basket the policeman had. She spoke no more about the child after the body was taken away. I stayed with her all that night and next day. She moved about the house, sometimes looking out at the window and sometimes sitting at the fire. She was taken

away on the Friday morning. During the time I was with her she said nor did nothing that showed she was insane.

By Mr. Rhind—All the time I was with her she kept awake, with the exception of perhaps ten minutes, when I thought she was asleep. She asked me where Mary Ann was, and I said “Don’t you hear the children playing in the street?” She was quite unmoved when I said that.

Dr. Munro—I was sent for at half-past ten on the 3rd January to go to the prisoner’s house. Dr. Mackie and I went, and we found the body of a child lying on the floor with the throat cut. There was a quantity of blood round the body, which was still warm. The child’s stockings bore marks of blood, which showed she had got some cuts when moving about. Inspector Stewart handed me a razor while there. I saw the prisoner in bed with her clothes on. She was lying on her back with her face towards the wall. I turned round her head to look at her eyes. There was blood on her hands and arms, neck and chin. The blood on her neck and chin might have been caused by her putting up her hands to her throat. She was in a deep sound sleep, from which she could not awake. Her pulse was at 86, soft, and natural. The pupils of her eyes were slightly dilated and irregular. She breathed quite quietly and naturally. I felt the smell of whisky from her breath. She was not in a fit condition to be removed at the time. On rousing her about one o’clock, she said “What is it?” She had, I consider, taken no other poison than alcohol. Excessive drinking of spirits without water had put her in the state she was. On the Wednesday morning at one o’clock she was recovering, but could say nothing but “What is it?” I had no fear of her recovering in a few hours. I saw her at half-past six on the Thursday, when she was complaining of a pain in the belly. She said the pain was due to a kick which her husband had given her. She answered my questions readily, and her answers were intelligent. I saw no trace of insanity about her. I saw not the slightest appearance of it. The child’s body was given to me for examination. Dr. Mackie and I drew up a report on it.

The witness then read the report, of which the following are the principal portions:—

Cupar-Fife, January 4, 1872.

The body was that of a fairly nourished female about six years of age. The body was very pale, lips blanched; the cadaveric rigidity was general, the eyelids half open, and pupils dilated. The whole face, both knee-joints in front, both the arms, forearms, and hands were covered with blood. The hair of the head was five or six inches long, and matted with blood, especially behind. There were two incised wounds, each about half an inch in length and one-eighth of an inch in depth, running transversely over the second and third phalanx of the ring finger of the right hand; also an incised wound, half an inch in length and a quarter of an inch in depth, at the junction between the index and middle fingers of the left hand. Under the lower jaw on the left side were found five incised wounds running from above downwards, one an inch in length and half an inch deep, two were three-

fourths of an inch in length and nearly through the integuments, the remaining two were half an inch in length and quite superficial. On the right side of the lower jaw there were also three incised wounds. On a lower level than the above wounds was a large incised one which extended from an inch and a half below the left ear to a corresponding point two inches below the right ear; adherent clotted blood was found in the room, which measured  $5\frac{1}{2}$  inches in length, and in the centre 3 inches in breadth. The edges of this cut were inverted, at some points jagged, having on the upper and lower border dog-eared projections formed by three separate small cuts. This large wound was made left to right, and as it proceeded to the right became deeper, so that one of the anterior transverse processes of one of the cervical vertebræ was cut through. In making this wound the cutting instrument severed completely the right common carotid artery, the jugular veins, the pneumogastric and descendens noni nerves, as well as the muscles on the right side of the neck, and the superficial ones on the left side, at a part opposite the thyroid cartilage, which was cut open in two places, leaving the windpipe open, which contained a small quantity of bloody froth. Below the lower margin of the large wound, and to the right side, there was one an inch in length and quite superficial in depth. On the posterior portion of the neck, below and behind the right mastoid process, there was an incised transverse wound an inch and three-quarters long, gaping, half an inch in breadth and depth, and containing clots of blood. The report stated that the other organs of the body were healthy; and that in the opinion of the medical men, death had resulted from the loss of blood from the large blood vessels which were found divided in the neck.

The report was signed by J. W. Reid Mackie, M.D., and A. D. Munro, M.D.

By Mr. Rhind—A person may not show insanity unless it is carefully searched for. In a case of homicidal mania the patient generally has had insane ancestors. Sudden bereavement might cause that mania. In these cases there would be a great change of character, and restlessness, or melancholy, and subjection to delusions. In such cases after a murder the patient seems relieved. In other cases the commission of the crime is the first sign, and in such cases the patient continues to be insane. There is a case recorded in which a person suffering from homicidal mania recovered after the crime. The mania may end in suicide. People who commit crimes under insanity never conceal them. I have heard of a case of an insane mother poisoning her two children with strychnine after purchasing the poison with great cunning. A person having latent insanity *might* be excited by the sight of a weapon such as a razor. There were twelve wounds altogether on the child's neck. The large wound was a hacked one, and the vertebræ were severed on one side. On the Wednesday the prisoner was half unconscious. On Thursday she was hysterical. The character of the pain she complained of was hysterical.

Dr. Mackie; Cupar, corroborated Dr. Munro's evidence.

By Mr. Rhind—Melancholy and sleeplessness are symptoms of homicidal mania, as they are of other forms of insanity.

By Lord Neaves—A half-mutchkin of whisky would be more than sufficient to put the prisoner in a state of semi-coma. She told me that she went out to Mrs. Low's on the morning of the 3rd January,

at seven o'clock, and got a quantity of drink. She also said that after she did the deed she sent for half-a-mutchkin.

Lord Cowan—When was it she said this to you?

Witness—On the 12th April.

Lord Cowan—How were you in conversation with her at that time?

Witness—I was sent for by the prisoner's agent to see her then.

Mr. Rhind—What were the precise words that the prisoner spoke when she said she had done the deed?

Witness—She told me that her child was standing on a chair trying to get into a press for a bit of cheese, and that the child fell and made a noise, and that she (the prisoner) took a razor and did the deed.

The prisoner's declaration, as follows, was then read:—

At Cupar-Fife, on the 5th day of January, 1872, in presence of A. Beatson Bell, Esq., Sheriff-Substitute of Fifeshire, the prisoner Agnes Laing or Paterson, having been sworn and admonished, declares—

My name is Agnes Laing or Paterson. I am the wife of Thomas Paterson, carter, Cupar. I reside with him in Union Street, Cupar. I am 28 years of age. I had a daughter named Mary Ann. She was between 6 and 7 years of age. She was attending school. She was my daughter by my present husband. She was in good health on Wednesday morning last. I went on the Wednesday morning, about 9 o'clock, to Low, the spirit dealer's shop. When I came back my daughter was not in, and I went to my bed. My husband was at his work, and there was no one in the house. I fell asleep, and didn't hear my daughter come in. When I awakened Mrs. Wilson was in my house. I said, "Where are Tom and Mary Ann?" I said, "What have I done?" She said, "This is awful." I have never seen my child since that morning I went out. I did not attack her in any way. My husband told me that my child is dead, but I do not know how she came by her death. All which I declare to be truth.

(Signed)

AGNES LAING,  
A. BEATSON BELL.

At the conclusion of the evidence for the prosecution, witnesses were examined for the defence.

James Laing, the prisoner's father—I am 80 years of age, and now live in Pollockshaws. I left Cupar two months ago. The prisoner is my daughter, I am sorry to say. She and her husband had three children, two of whom died in August last. Their death had a great effect on her. She was a changed woman after that. She was fond of her children, particularly of Mary Ann. I often went to see them. I was often rather dubious about the prisoner's insanity. I was afraid for her because of the deficiency on her mother's side. She seemed "dispersed" like. Her mother made away with herself.

[At this point the Bench interfered, and refused to allow any further evidence as to the insanity of the prisoner's relatives. Mr. Rhind, counsel for the defence, referred to the following cases, as bearing on his claim to adduce such evidence. *McQue*, 12 March, 1860, 3 Irv. 578. High Ct., Lds. Justice Clerk (Inglis) Ivory and Deas. *Jean Blair*, 14 March, 1781, 1 Hume's Com. p. 40. Reg. Ross Tucket, 23 Oct., 1844, 1 Cox, Criminal cases 103. *Bryce*, 30 & 31 May, 1864,

4 Irv. 506, H. C., Lds. Justice Genl. (McNeil), Neaves & Jerviswood. Counsel for the crown cited, *Gibson*, 23 Dec., 1844—2 Brown, 332, High Court. Lds. Justice Clk. (Hope), Moncrieff & Cockburn. *Browns*, 25 April, 1855—2 Irv. 154. Perth, Lds. Ivory & Deas. This case was particularly alluded to as proceeding after careful consideration of all the previous cases. *Dingwall*, 19 Sept., 1867, 5 Irv., 466. Aberdeen—Lds. Deas & Neaves. After argument Lord Cowan remarked on the difficulty of deciding such important questions on circuit. Whilst admitting the strength of the argument for the admissibility of such evidence, regard must be had to decided cases. His Lordship refused to recognize English cases as authoritative until they were made so by Act of Parliament. Lord Neaves adhered to this opinion. Both their Lordships seemed to feel considerable difficulty and reluctance in rejecting the evidence, but had no alternative in the face of decided cases.]

Dr. John B. Tuke, Medical Superintendent of the Fife and Kinross Asylum since 1856—I have given considerable study to the question of insanity. The chief symptom of homicidal mania is a tendency to kill. There are cases on record of persons killing others without premonitions of insanity. A sudden bereavement or shock might cause insanity to supervene where there was no predisposition. Sleeplessness is invariably a symptom of insanity. Predisposing causes, moral shock, violent outburst, suicidal tendencies, and melancholy, are pretty nearly the sequential symptoms of many cases of insanity. It frequently occurs that the insane justify or excuse themselves for insane actions.

Mrs. Jack—I am in prison for theft. I was in Cupar Jail on the 5th January, and from that time till three weeks ago I slept with the prisoner. She was always a little restless. She might sleep four hours in the first part of the night and two hours in the morning. She never slept more than that time until she got her indictment, when she only slept about two hours. She was sleepless from 12 at night till four in the morning. Any time that I woke between 12 and 4 she was usually awake. The prisoner kept me awake by asking questions. She could not sleep by herself, and asked leave from the matron to let me sleep with her. She got leave, and I was with her till three weeks ago, when I left her. I could not sleep with her because she shivered and trembled, her hands and legs shaking. I reported to the matron that I had got a bit of rope that dropped from the prisoner's clothes. The prisoner was anxious to get it back, and abused me. She put her fingers down her throat, and when I got to her she said she was sick. I thought she was doing wrong. I told the matron. She did that once and grew black in the face.

Mrs. Matthews, Matron of Cupar Prison—The prisoner was put under my charge on the 5th January. She was very excitable and restless, and frequently made attempts to injure herself. In consequence of that I gave orders that she should not be left alone, and



that everything should be taken out of the cell that she could use for hurting herself. A strait jacket was put on her. It was further elicited that the prisoner was menstruating at the time of the murder.

By the Advocate-Depute—I put the last witness to sleep with her. I reported the putting on of the strait jacket to Mr. Cook, the Governor of the prison. The jacket was put on a night or two after she came in. It has been kept on during the night all the time up till now. The Governor and I thought that necessary because she was always restless, and her hand often at her throat, and from what the last witness reported to me. I saw her one day with a pin, with which she pricked her throat all round.

The Advocate-Depute, in addressing the jury for the prosecution, went over the leading points in the evidence, and asked the jury specially to consider seriously the grounds which might in their opinion justify them in saying that the prisoner was insane at the time of the committal of the crime charged against her. In conclusion, he said he had no alternative but to ask them to return a verdict finding the prisoner guilty of murder, and finding that verdict on the footing that she was not insane at the time of the committal of the crime.

Mr. Rhind then made a powerful and impressive speech on behalf of the prisoner. He said he was not there to dispute, because he did not think it could be disputed, that the prisoner was the cause of her child's death, but he disputed most certainly that the woman sitting at the bar was responsible in the least for what she then did. He could conceive that a man, from hatred, cupidity, or revenge, might take the life of a fellow-man, but he could not conceive how anyone could commit the crime of murder without having any motive whatever, or how this woman, being sane, could have taken the life, in such a barbarous manner, of the child of whom she was passionately fond. There was, however, a way in which the crime in this case could be accounted for, while there was not the slightest motive to which the murder could be attributed, and he submitted to them, as reasonable and intelligent men, that they had in this case sufficient proof that the prisoner was not on the 3rd January in a sane state of mind. Three descriptions of insanity by Lord Cockburn were read by Mr. Rhind, and these, he said, were held in law to be sufficient to absolve the person suffering from the disease if he had committed the crime of murder. He held that the prisoner came under the second description, viz.—“That though aware of what he was doing, the insane person was under an impulse so irresistible that he was not a ‘free agent.’” That strange inscrutable disease of insanity, as they had heard, broke out sometimes in such a way that the first evidence of it was the commission of a fatal crime, occasionally indicated previously by melancholy, depression, or sleeplessness. But there were also indications beforehand. He regretted having been disallowed to lead evidence showing whether the prisoner's ancestors were steeped in in-

sanity or not. He also regretted having been deprived of the power of examining the prisoner's husband, who possibly was the person best able to speak of his wife's real state of mind. He considered, however, that he would be able to show from the evidence that had been led sufficient grounds to satisfy them that the prisoner at the time she committed the deed was an irresponsible agent. The learned counsel next alluded to various acts of the prisoner on the day of the murder and while she was in gaol. These acts he considered to be such as would not have been performed by any sane person, and he asked them if the whole circumstances were not of a nature such as would prevent them giving effect to the Advocate-Depute's desire for a verdict of guilty? He concluded by putting before the jury their responsibility, and urging them to give deep consideration to the circumstances he had stated.

Lord Neaves, in summing up, recapitulated the principal features of the evidence. If the jury could not make up their minds that the prisoner was insane at the time of the committal of the crime, they must make up their minds regarding the giving of a verdict calling for the last punishment of the law. In a case like this the law allowed and directed that if the act was done when the person was in an unsound state of mind he or she was retained, not again to have an opportunity of breaking the law.

The jury retired, and after an absence of ten minutes returned, giving the following verdict through their foreman, Mr. Kirkwood Hewat, Perth:—"The jury are unanimously of opinion that this deed was committed when the prisoner was in an unsound state of mind, and therefore find her not guilty." The Clerk of Court read the appended finding of the Court:—"The Court find that the panel is not a proper person for punishment, and therefore assoilzie her *simpliciter*; and further, in terms of the provisions contained in the Act, order her to be kept in strict custody in the General Prison at Perth until Her Majesty's pleasure is known."

These are the main facts of the case as brought out at the trial, but there are many others of very great importance which were not disclosed in consequence either of technical objections, founded on the Scotch law of evidence, or from other causes, the nature of which it is difficult to understand. I have had the opportunity afforded me of reading over the depositions of the various witnesses, and of personally examining and conversing with the prisoner, and am thus able to speak with some confidence as to the medical character of the case.

The first item of evidence which was refused by the Bench was testimony to the peculiarly strong hereditary predisposition which existed in the family of the prisoner. Her father

was prepared to prove that many immediate relatives had been or were insane.

It would have been not uninteresting to have read to you this man's deposition in full; it tells in simple, forcible language a most miserable story of family insanity. However, in short, his statement amounted to this:—That the prisoner's maternal grandfather was insane, that her uncle committed suicide during a melancholic attack, that one aunt was liable to periodic attacks of a similar nature, that another aunt was for long an inmate of Morningside Asylum, and latterly of the Fife and Kinross District Asylum, and, lastly, that the prisoner's mother had been for many years liable to outbursts or "wild turns;" that a year before the birth of the prisoner her mother had shown definite symptoms of insanity of a melancholy kind, that at the time of the pregnancy and birth she was manifestly mad, and finally that four years after she committed suicide.

The next point which was not brought prominently forward was the fact that for three weeks at least before the crime was committed the prisoner had been drinking hard, and that she had for long been of dissipated habits.

Although certain witnesses at the trial spoke to a marked degree of affection for the murdered child on the part of the prisoner, there were others who would have testified quite differently; but as these were not submitted to cross-examination it is hardly fair to found too much on their statements.

Besides the confession Mrs. Paterson made to Dr. J. W. R. Mackie, as to the immediate cause of her committing the crime, she, on the 12th April, voluntarily stated to me that she had drunk a gill of whisky early on the morning of the 3rd of January, that she ordered the child to go for more to Low's public-house, that the child refused, and that in a fit of frenzy she cut its throat, hardly knowing what she did, but that her recollection was quite distinct of all that had occurred. She further expressed contrition, and said that she did not care to live longer, and hoped to be executed. All through this somewhat prolonged interview she did not exhibit the slightest indication of insanity. During the trial she often aloud protested against statements which rendered her sanity doubtful, once exclaiming, "I'm a recht, keep the drink fae's."

The character of the suicidal attempts in prison must be shortly considered. It cannot be said that they were of a

very desperate character, and I am aware that the medical authorities did not attach much importance to them. On the other hand it may be fairly argued that she showed a considerable amount of cunning in secreting articles with which she might possibly have destroyed herself, and those who are acquainted with suicide as a symptom of insanity will lay some stress on the persistence of the desire she exhibited.

The evidence of sleeplessness was not very conclusive; four hours in the first part of the night and two in the morning cannot be regarded as a very bad allowance of sleep to a woman who had little to occupy her body, and a good deal to occupy her mind.

We will now take the strong points *pro* and *con.* insanity at large, as exhibited in this case, and then consider how far the defence of homicidal mania was borne out.

It must be allowed that the following strong and normally sequential indications of insanity presented themselves on a knowledge of the whole facts of the case:—1st, strong hereditary predisposition; 2nd, the woman being born of a mother who was insane during the whole period of utero-gestation; 3rd, the moral shock of loss of two children in August, 1871; 4th, prolonged and heavy drinking; 5th, a violent outburst of passion at a menstrual period, resulting in the unpremeditated commission of an act of great savageness on the person of a daughter; 6th, subsequent attempts at suicide.

Against these must be weighed—1st, that no definite symptoms of insanity were spoken to (with the exception of the father's vague assertion) previous to the act; 2nd, that no symptoms of delirium tremens, or of any other form of insanity, were noticed an hour before or a few minutes after the commission of the deed; 3rd, that she voluntarily accounted for the fact of blood being seen on her hands when in the whisky shop a very few minutes after the murder, and that she continued the denial of her guilt for many weeks after the event, and even sought to cast the blame upon her husband; 4th, that she subsequently admitted certain, although very inadequate motives for the act, but it must be considered how far small provocations are liable to be exaggerated in the insane or alcoholized brain; 5th, that no definite symptoms of insanity presented themselves up to the day of her trial, with the exception of the sleeplessness and suicidal tendency above commented on. It must be remembered that during the whole period of her stay in prison she was under the eyes of medical gentlemen who are well ac-

quainted with the subject of insanity, and who were fully alive to the necessity of examining her, from the knowledge that insanity would most likely be the defence set up. The evidence of Drs. Mackie and Munro was given in such a manner as to favour the prisoner as far as they conscientiously could, but neither of them could say that they had seen a single definite symptom of insanity about her.

The question appears to me to narrow itself to a differential diagnosis between so-called insane homicidal impulse and temporary alcoholic mania. The diagnosis is fraught with great importance to public justice, for if it could have been proved that she had been actuated by an insane desire to kill, no citizen could have desired aught else than that she should be restrained in future from a return of her malady by being confined during the rest of her natural life in a criminal lunatic asylum; whilst if the act had been committed under the influence of alcoholic fury, notwithstanding all the evidence of hereditary insanity, the public might have justly argued that the ordinary cells of a prison should have been her fate, if even she had escaped the gallows.

I must confess that my mind bears towards the diagnosis of alcoholism acting on a congenitally weakened brain, which did not possess sufficient inhibitory power over violent passion. My reasons for coming to this conclusion are that there is nothing in the history of this woman which would have justified a medical man in certifying her insane had she not cut her child's throat when dazed with drink. We have no history of mental derangement, either before or after the act, and the deed itself is not so entirely disassociated from motive as to support the theory of pure homicidal impulse. That she was alcoholically insane is more than probable, otherwise she would have taken some means of hiding the evidence of her crime, instead of which she presented herself at the whisky shop immediately after with her hands covered with blood, and made an apology for their condition. At this moment she seems to have barely recovered from the fit of temporary insanity, under the influence of which she had acted. Her counsel most judiciously kept the evidence of drinking in the background, no doubt knowing that it was better for the jury to form their own views of the nature of the insanity which produced the homicide without his commenting on it too particularly. Homicidal mania was homicidal mania to him and to them, irrespective of the

means of its induction, or of their bearing on the medical aspect of the case.

From a purely psychological point of view, Mrs. Paterson was insane at the time of her offence. She had all the necessary primary factors for the production of insanity, to which she added the toxic influence of alcohol. But it is very open to question whether she ought to have been held excused in the eye of the law. Insanity is such a wide-spread disease, permeating every rank of society, that it opens up a very large and important question if the criminal who has been born of insane parents, and who has committed a crime under the influence of drink, or even under violent passion, is, in consequence of his hereditary predisposition, to be held as-soiled. If this practice were to be followed in all cases of crime, judging from the facts elicited by Dr. Bruce Thomson's admirable papers on insanity in its relation to the criminal classes, our penitentiaries would soon be converted into criminal lunatic asylums, and these latter and less institutions would suffice for the sane prisoners. Dr. Thomson points out that the moral responsibility of the habitual criminal is inferior to that of the ordinary run of mankind, as he is the result of a species developed by the shortcomings of our social economy. In a less degree the so-called homicidal maniac is irresponsible for his actions in consequence of circumstances over which he has no control, as he may have been begotten when his father was drunk, or his nervous system may have suffered from his mother having been the victim of insanity of pregnancy, his parents may have been cousins, or a hundred other evil influences or social errors may have "darkly curtained his very cradle's head." As he grows up he may show evidence of a wayward temper, a saturnine disposition, take to vicious courses, may be of a weakly romantic turn of mind, or may be like his fellow creatures, until in a moment of ungoverned passion he commits the crime of murder.

Many hard things have been said about the reluctance of the judicial Bench to admit evidence of hereditary predisposition, but little has been said, at least by members of our profession, as to the difficulties in the way of its reception. The principal difficulties to be settled are as follows:—1st, Should such evidence be led, apart from definite symptoms of insanity, and in consequence simply of the savage or unnatural character of the offence? 2nd, How is the insanity of

deceased ancestors or relatives to be proved? 3rd, What degree of relationship to the accused is to constitute hereditary predisposition—and 4th, Is the nature of the insanity of such relatives to have any bearing in each case?

It appears to me that the first question should be answered in the negative, that hereditary predisposition should not be urged except with the purpose of confirming other manifest evidence of insanity. I must confess my disbelief in morbid homicidal impulse, disassociated from other manifestations, preceding or succeeding the murderous assault. Homicidal mania is a symptom of certain forms of insanity, such as epileptic, traumatic, and puerperal insanity, and of congenital idiocy, but to admit it as an insanity *de se* would be dangerous to society, and impossible of proof.

The second difficulty is by no means the least to overcome. There are many cases in which medical evidence could not be adduced in proof of the insanity of long deceased relatives, in consequence of the lapse of time. In cases where the relations have not been confined in asylums, the evidence might depend merely on the memory of witnesses, whose bias might lead them to exaggerate mere mental obliquities, and a criminal court might be compelled to sit as a *commissio de lunatico* on the memory of a person or persons who had died many years previously. Such difficulties might not arise often, but they are so probably imminent as to justify the lawyers in advancing them, unless some distinct rule is laid down for the guidance of the court.

The degree of relationship to the accused necessary to prove hereditary predisposition would need to be laid down definitely; for, if counsel for the defence were permitted to go back four or even three generations, it is to be feared that there are few panels who would not be able to put forward the plea of hereditary insanity.

Lastly, the nature of the insanity, or other nervous diseases of relatives must be taken into account. There are so many forms of insanity which are purely accidental, so to speak, dependent on individual, not family neurosis, natural decay, or produced by vice, that it would militate against public justice were it led in evidence that the uncle or aunt, cousin, or even parents had been their subject. It would simply bamboozle a jury and lay the system open to abuse.

The English judges have lately wisely admitted evidence of hereditary insanity in certain cases, where there was good reason to suspect mental alienation on the part of the

accused, and the evident reluctance with which Lords Neaves and Cowan disallowed such testimony in the case of Mrs. Paterson, leads me to hope that a reform of a similar nature will soon follow in Scotland. It is a reform, however, which it would be unadvisable to initiate, unless after argument before a full court of senators. Definite rules of practice must be laid down for the conduct of cases in which the special plea of insanity is advanced, and I would respectfully submit that a very great aid to the Bench would be found in the appointment of a medical Assessor to advise the Court, a measure which would prevent many miscarriages of justice. The generic term Insanity embraces such a variety of diseases, differing in degree and etiological importance, that when its incidence in an ancestor is employed to prove or disprove the individual irresponsibility of a descendant, it cannot be expected that any other profession, save that of medicine, can elucidate its real bearings in any particular case.

In the case now under consideration, had such an officer been appointed, I believe the verdict would have been different; the jury would have been shown that the act was committed under the self-induced temporary insanity of alcoholism, and the facts in the family and social history of the prisoner would have served to simply modify the verdict, or would have justified the Bench in forwarding a strong recommendation to mercy.

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*Homicidal Impulse.*—By FREDERICK NEEDHAM, M.D. St. And.,  
Medical Superintendent of the York Lunatic Hospital.

In reference to the remarkable statement recently made at the trial of the Rev. J. S. Watson, at the Old Bailey, that no case is on record of an impulsive act of insanity involving homicide in a person who had not given evidence of insanity of an unmistakable kind previously, the following cases may be interesting as showing that at all events the *impulse to homicide* is at times present without other symptoms of insanity, and that the absence of the homicidal act itself is due in such cases either to the retention of sufficient self-control for the temporary resistance of the impulse, or to the act itself, in its results, falling short of homicide.

These cases also go to prove that which I believe to be a



fact, that, in many instances, it is a mere matter of chance, dependent upon the absence of courage or of opportunity, whether the impulsive act is suicidal or homicidal. Both appear to spring from the same mental condition, to have the same originating cause.

CASE I.—In September, 1858, a lady was admitted into this hospital at her own request, whose history was as follows :—Born in Italy, she early displayed excellent abilities, and a lively and volatile disposition. Her education was carefully attended to, and she made rapid progress in her studies.

Shortly after leaving school her parents died, and it became necessary that she should earn her own living. This she did for some years by teaching.

At the age of 28 she was attacked by what was called brain fever, which left her, after an illness of some duration, with considerable mental irritability. She still, however, persevered with her scholastic duties, and acted as governess in several families of distinction. This continued until she was about 43 years of age, when, her health having become somewhat impaired, she was suddenly seized with the impulse, at sight of a razor or knife, to commit suicide or murder. She struggled against this feeling strenuously, and in the course of a few weeks it disappeared completely, and did not recur for more than five years.

A short time previously to her application to me, the patient, feeling that her physical health was not so good as usual, had gone to an inland watering place, and while there had been revisited by what she described as “this fearful desire to murder someone, which rendered her life miserable.”

When I saw her she was labouring under great mental distress lest her admission should be refused, and she expressed her decided conviction that she had reached the end of her self-control, and must give way to the impulse if she were not taken care of at once. She was apparently perfectly free from delusion, and conversed rationally and cleverly upon general subjects, manifesting, indeed, remarkable shrewdness and knowledge of the world. There was no heat of head, and the digestive functions were not materially affected, but the general health was evidently feeble, and the pulse was quick and compressible. She was placed upon a liberal diet, and took steel during the day, and a sedative, when requisite, at night.

On the 7th October she was much improved, and had felt no return of the impulse.

On the 25th November she was stronger and better, and said that she had had no recurrence of the desire to destroy with a knife, but had once or twice felt impelled to strangle herself.

On the 25th January, 1859, she was apparently quite well, and had been so for some time, and as pecuniary and other reasons rendered it necessary that she should leave the hospital she was discharged on that day, and went for a two months' visit to the sea-side.

She now rapidly recovered strength, and remained perfectly well up to September, 1862, when she again came voluntarily to the asylum, and asked to be admitted. She was then in precisely the same mental and physical condition as at the time of her previous admission, and had suffered a severe recurrence of the homicidal impulse.

She was discharged, recovered, in April 1863, and has remained well ever since. The peculiar feature of this case was that, from first to last, under careful daily observation, there was never the smallest trace of delusion, or any other evidence of mental derangement than that which was afforded by the very decided homicidal impulse. The patient, on the contrary, was sensible, clever, and well conducted.

It is true that the homicidal act and attempts were wanting, for the patient retained sufficient self-control to enable her to resist the impulse up to a certain point, and sufficient wisdom to place herself under care when she felt that the limit of resistance had been attained. Fortunately the impulse to destroy does not need to be carried into effect in order to give assurance of its existence.

CASE II. differs somewhat from that which has just been recorded, but it shows that the impulse to injure may remain long after all other manifestations of insanity have ceased, and that consequently a person might have an attack of insanity, apparently recover from it, and yet afterwards, under its influence, commit a serious crime, which could not by ordinary means be traced to any connection with an unsound state of mind.

At the end of 1861 I was requested to see a professional man, a resident of London, who was on a visit to friends near Scarborough. I found him to be short and strongly built, about 50 years of age, with an extremely depressed aspect and reserved manners. He was evidently most despondent, and was suffering at that time from a partially-healed wound in the throat, inflicted by himself with a penknife. He was

coherent but taciturn. He, however, expressed a great desire to die, because as there was no hope for him either in this world or the next, the sooner he was out of his present misery the better for himself and his friends. His general health was feeble, and there was considerable gastro-hepatic derangement. It appeared that the patient was a self-made man, who, by intense industry and great economy, had secured for himself a respectable position in his profession. By religious persuasion a Quaker, and possessed of few friends, he had become accustomed to habits of reserve and solitude, which the absence of family and separation from his wife served to maintain.

Intense, long-continued exertion, and a parsimonious disregard of the conditions requisite for the maintenance of his health, had resulted in a feeble physical state and great mental depression, to endeavour to remedy which he had at last been induced to leave work and come down to Scarborough.

I recommended that, as his attempts at suicide had been repeated, he should be at once placed under suitable care, and he was accordingly sent to an asylum near York, where he remained until February, 1863, when, his means having become greatly reduced, he was removed to this Hospital, and placed upon the charitable fund. I found him to be still somewhat depressed, but apparently free from suicidal tendency, and he continued gradually to improve until all trace of depression and delusion completely disappeared. But now a curious and very objectionable feature began to manifest itself. He became full of complaints of every one concerned in his care, and alleged them in such a manner, and with so much appearance of truth, as to render it extremely difficult to disprove his assertions. Moreover, endless acts of destruction were constantly occurring, the author of which could not be actually discovered, although correlative circumstances left no reasonable doubt as to their paternity. Thus, on one occasion when this patient had remained in bed in consequence of alleged indisposition, a neighbouring bed was found in flames, and he complained bitterly that someone had been malicious enough to attempt to burn him in bed. Another day two mirrors were scratched and defaced with a pebble, while on another occasion the bed of a fellow-patient was soaked with water from a wash pitcher, and the water-colour drawing of another scored and destroyed by means of a pin. That these repeated acts of destruction were his no doubt whatever existed, although he was never seen to commit them. They at once ceased on his discharge. During the

whole of this time there was no other evidence of insanity. The patient was free alike from depression and undue excitement. He was coherent, rational, and intelligent in his conversation, and there was no indication whatever of any delusion.

He had a prolonged interview with the Commissioners in Lunacy in January, 1864, and was by them recommended to the Committee of the Hospital for discharge on trial. He was accordingly discharged on the 15th March, and went, under care of an attendant, into lodgings near Scarborough, where he remained for five weeks in the same state, and then returned to London.

On the 12th April, 1866, he was convicted at the Central Criminal Court of throwing vitriol into the face of a woman who he thought had injured him, and was sentenced to twenty years' penal servitude.

Attempts were made to obtain a remission of the sentence on the ground of insanity, but without avail.

This case, differing materially from the last in the fact that well-marked melancholia was at one time present, has this identity with it—the impulse to injure, which I have no doubt, but for cowardice, would have been the impulse to destroy, was present at a period when no other evidence of insanity existed, or had existed, for very many months. Looking at these cases in the light of their whole history, we cannot, I think, fail to conclude that the criminal impulse in each had its origin in insanity, although other signs of that disease were absent, and that in the last of them the criminal act was an evidence, and the only one, of a continuous insane condition of which the form but not the substance was changed. Surely cases such as these are proof enough, if further proof were needed,—1stly, that homicidal or destructive impulse does exist without previous unmistakable evidences of insanity; and 2ndly, that where such evidence has existed it may have been at a period so remote from the occurrence of the criminal act as to render it impossible, save with a full knowledge of the history of the case and of the individual for many years past, for any one to satisfactorily connect the two. Moreover, can anything be more certain than that such delicate conditions are unfit for the rough handling of a common jury, or that a prisoner has small chance of justice when medical evidence in favour of sanity is given, without previous knowledge of the case, and after only a cursory examination of the patient?

*On the Mis-use of the Term "Softening of the Brain."* By G.  
MACKENZIE BACON, M.D.

It is the cultivation of pathology that has done more than anything to advance the science of medicine of late years, by giving more distinct knowledge as to the diseases we have to treat, and we may, therefore, hope to see a more exact use of the definitions of disease in time. With the public it cannot be so, for, as they have no real knowledge to fall back upon, they feel no need to be accurate in their language, and are indifferent to the terms they employ. Not that they think so, for they like to pick up all the new terms, and probably imagine they are then well acquainted with what they talk about. It is really amusing to note the fluency with which some people talk of diseases—the confidence with which they discuss them being inversely as their knowledge—and to hear their opinions on the most abstruse subjects delivered as freely as though it were a question of the weather. This is quite a development of late years, and one of many signs of the pretentiousness and superficial nature of modern ways of speaking and thinking. In former days people supposed a doctor knew his business, and that they did not, else they would not call him in; but now-a-days it is almost necessary to flatter a patient that he understands his own case quite as well as his medical man. With this tendency among the ignorant it is almost a duty on the part of medical men to be careful in their use of terms which are common to themselves and the public, lest they should encourage vulgar errors by lending their authority to false interpretations.

Take, for instance, such a term as "softening of the brain." This implies a definite lesion, of a certain character, and should be restricted properly to cases having such a pathology; but it is really one of the most distorted phrases in common use. The public use it to indicate a certain amount of fatuity, or declining intelligence, and have no idea that the words ought to have a more literal application. But many practitioners use the term almost as loosely. On looking over the records of a large number of cases admitted into the Cambridgeshire Asylum during my residence there, I find that in every instance where "softening of the brain" was alluded to as the cause of insanity, the *post mortem* has shown there was nothing of the sort; and the most curious

thing is, that this is the most frequent diagnosis made in general paralysis by those not well acquainted with the disease. Now, to call a case of general paralysis a "softening of the brain," is to make language of no effect or to commit a positive error in diagnosis. Such a style of nomenclature is no better than that used by the public, and only discredits medical knowledge. The diagnosis of general paralysis may be difficult in an early stage, and I suppose is so, as it has never yet been my fate to receive a case in which the medical certificate gave the smallest indication of the real character of the disease; but that should be no excuse for taking refuge in a term which has a definite meaning of a different nature.

On looking back at seven cases ascribed to "softening of the brain," I find that four of them were cases of general paralysis, one was transient delirium from drink, one was mania with fixed delusions in an old man who lived two or three years and showed no signs of fatuity, and in whose case a *post mortem* showed no softening; and the seventh was an old man with failing health and memory, in whom the *post mortem* also negatived the diagnosis.

With such experience I may fairly plead for a more exact use of the term, in the interests of our profession, for, if it be used so loosely, it ceases to have any clear meaning to ourselves, and is apt to encourage fallacies.

These remarks are not intended to apply to cases where the diagnosis is difficult—for no one could be required to stake his reputation on the question whether there be actual softening or not—but to those in which men express a decided opinion on insufficient grounds, and so mislead others. The example of general paralysis I have given is enough to prove that this is often done, and my own experience can hardly be peculiar.

There are some who are fond of satisfying the public with the vague assurance that the "liver is out of order," as a reply to inquiries as to any dubious ailment; and what this statement is as regards abdominal disorders, "softening of the brain" may be as concerns cerebral complaints, but such phraseology is as little desirable in the profession as elsewhere.

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*Insanity and Homicide.*

At the last Spring Assizes held at Kingston, a prisoner indicted for murder was acquitted on the ground of insanity. The case does not offer any extraordinary points of interest to those who have a practical knowledge of insanity, but it has some bearing on the accepted legal criterion of responsibility. It serves to show, too, how dangerous and how unfit to be at large are insane persons who have delusions of persecution. We subjoin the following report of the case:—

KINGSTON, APRIL 4.

CROWN COURT.—(Before Lord Chief Justice BOVILL.)

William Charles Minor, a middle-aged man, was indicted for the murder of one George Merritt, at Lambeth, in February.

Mr. Denman, Q.C; and Mr. J. C. Matthew, conducted the case for the prosecution; Mr. Edward Clarke defended the prisoner.

The circumstances of the case were, as detailed in evidence, these:—

The prisoner is an American, who had for some months resided in this country. He was a surgeon, and had served in that capacity during the American war. He was a man not only of professional skill, but of some accomplishments and education, and he had served with credit. But, unfortunately, in the course of service he sustained a sunstroke, and this incapacitated him either for pursuing his profession or continuing any course of study. Hence he took to drawing and painting, and he came over to this country last year with introductory letters, one of which, from a Professor at Yale College, New-haven, Connecticut, was found at his lodgings, and stated some of the facts above-mentioned, especially as to the sunstroke and its results. He resided at the time of the unhappy occurrence in question at 41, Tennyson Street, Lambeth. While there his conduct was, according to the evidence of his landlady, perfectly sensible and rational, and his habits for some time were regular. He had latterly, however, slept out several nights a week, and during this period—that is, in December and January last—he had gone to the police-station, Scotland Yard, and made wild and incoherent complaints of persecutions he sustained from the Irish, who, he said, had persecuted him in America, and had continued their persecutions in this country. The officers came to the conclusion that he was deranged, but had no idea that he was dangerous. After this, as already mentioned, he slept out more frequently than before, and early in the morning of the 17th of February, shortly after 2 o'clock in the morning, he went out, and while he was walking in the Belvedere Road, not far from his lodging,

he met the unfortunate deceased and shot him dead on the spot. As no one was present, and the prisoner made no statement as to the circumstances, nothing could be proved about them. The police heard three shots, and immediately afterwards met the prisoner and asked him who fired the shots. The prisoner answered, "I did," and added that he had just shot a man. He had at that time a pistol in his hand, and the constable seized his hand and took it from him. It was a five-chambered revolver, bearing the mark of a maker at Springfield, Massachusetts. Four of the chambers had been discharged, leaving one still loaded. The unfortunate deceased was found lying dead, and two shots—either of them fatal—had taken effect, one of them in front, the other in his back. He was a man employed at Goding's brewery, and was going to his work. As the prisoner was being taken to the station he said to the constable, "You have not searched me." The constable said he would be searched at the station. "How do you know," said the prisoner, "that I have not another pistol about me? I might shoot you." To this the constable answered that if he had another he had better keep it in his pocket. On his arrival at the station he was searched, and a knife, worn in the American way, behind, was found upon him. At the time the prisoner was arrested he was going towards his lodgings, which were only about 60 yards from the brewery. There was no evidence that the prisoner knew the deceased. When the charge was read to the prisoner at the station—a charge of wilful murder—he said nothing. His manner was cool and collected. Such were the principal facts so far as they appeared on the evidence for the prosecution.

Mr. Denman, after stating these facts for the prosecution, said that as the act was to all appearance cool, deliberate, and intentional, if the prisoner was in his right mind and responsible for his acts, there could be no doubt as to its character—that the act would be murder. The question, however, would be whether he was in his right mind at the time, and though undoubtedly the law presumed sanity, in the absence of evidence to the contrary, yet there were circumstances in the case, even on the evidence for the prosecution, which it would be wrong not to admit might fairly suggest that this was a fit question for consideration; and this, he believed, would be the question for the consideration of the jury. The mere coolness of the prisoner, and his avowal of the act, might not *per se* have been sufficient, but there were his previous acts and conduct, and also the fact, as stated in one of the letters found upon him, as to the sunstroke he had sustained. These and any other circumstances in the case which might be brought in evidence would be for the consideration of the jury. If the prisoner was, in fact, under delusions as to his being constantly attacked and persecuted by Fenians, and if while wandering about in the early morning he met the unfortunate deceased, and shot him under the influence of that delusion, then they would be warranted in holding



him not responsible for his act. Other evidence would, he believed, be adduced on the part of the defence as to the state of the prisoner's mind. The trial had been postponed in order to allow of time to produce witnesses from America on the subject, and the jury would have to form their conclusion on the whole of the evidence before them. He need not tell them that while, on the one hand, they would require to be clearly satisfied that the prisoner was not in his right mind at the time, yet, on the other hand, they would not hold him responsible for his act if they had reason to believe that it was not really the act of his mind as it was of his hand.

Formal evidence was then given of the facts above stated, and especially as to the prisoner's incoherent complaints to the police in December and January last. The police stated that they formed the impression at the time that he was under delusions, and they made an official report to the Commissioners. A letter was produced from the prisoner to the police, dated on the 15th of January, couched in incoherent terms, and making similar complaints. "My life," said the writer, "may be taken any night." "I trust your agents are not to be bought over as the American police are." This, it will be seen, was about a month before the unhappy event. In consequence of the report of the police, his friends were communicated with, but unfortunately too late to prevent mischief.

The widow of the unfortunate deceased was called, and her appearance excited much sympathy. She was merely called to state that, so far as she knew, the prisoner and her husband were strangers to each other.

No other evidence was given than as above stated, and this was the case for the prosecution.

Mr. Clarke addressed the jury on behalf of the prisoner, urging the absence of any apparent motive, and all the other circumstances of the case as showing that he was not in his right mind. That, he said, was his defence, and it was not, he observed, an afterthought; for, before the act in question an official letter had been written to the prisoner's friends as a warning to them of his condition and state of mind. He should now adduce evidence on the point, and he should show by several witnesses that the prisoner was subject to dreadful delusions. So long ago as 1867 he had actually been in a lunatic asylum at Newhaven, in America, and those delusions, or delusions of a similar character, had continued in this country, and came on at night. It was probable that early in the morning the prisoner had rushed out of the house under the influence of those delusions, and, meeting the unfortunate deceased, had, maddened by their influence, shot him dead. Even, said the counsel, if the jury had a reasonable doubt as to the sanity of the prisoner they would be reluctant to convict him, but he believed they would be satisfied beyond a reasonable doubt that he was not in a reasonable state of mind at the time he committed the act in question.

Witnesses were then called in support of the defence thus opened. Before they were called the prisoner beckoned to his attorney and made a communication to him, which was conveyed to his counsel.

The medical attendant of the gaol was first called, and stated that in his opinion the prisoner's mind was unsound, and that he was subject to delusions. In cross-examination he stated that they were of the same kind as those described by the police. On every other subject he was quite sensible, and capable of understanding what was said to him and of holding rational conversation, and capable upon matters not within the scope of his delusion of distinguishing right from wrong. The witness being pressed as to whether he thought that such a person could possibly be guilty of any crime, said he should have very great difficulty in admitting that he could be guilty of a crime, because there was such difficulty in understanding the working of an unsound mind or in distinguishing between its healthy and unhealthy action.

Mr. Denman—In the course of your conversations with the prisoner has he ever said anything to connect the act of killing Merritt with the influence of his delusions?

Witness—No. He has always declined to answer upon the subject at all. When I have asked him about it he has told me that it was not a professional question. At another time, when asked as to the annoyances he said he had sustained, the prisoner said it was a long story to go into, and said no more.

The next witness was the prisoner's brother, who stated that his brother had sustained a sunstroke, and that in 1869 and 1870 he had been confined in a lunatic asylum. After this, in April, 1871, his brother came to reside with him, and during that time he used to speak of noises he heard at night, and to complain of persons coming into his room to disturb him, all which, the witness said, were delusions. His brother told him that he had been called upon to brand a deserter, and that the deserter conceived that he had done it with unnecessary severity, and he believed that he was a marked man in consequence of it, and was pursued with persecution. Witness told him, he said, that, as these things could not be proved, it showed that his mind was unsettled, and that it was desirable he should have good treatment. His brother said he should be glad to go into an asylum if he could get rid of these annoyances. His brother left his home last September, and shortly afterwards came to Europe. He had spoken of it before, and said he desired to consult the police there.

In cross-examination the witness admitted that he regarded the delusions as entirely harmless.

The next witness was a warder of the gaol, who had been employed as an attendant on lunatics, and who had been employed to attend prisoners at the gaol at night. He had been employed to attend the prisoner, and observed, he said, that after he had been asleep he always imagined that some one had been in the room, and about two

in the morning he used to wake and look under his bed to see if any one was there. This happened many nights. The witness attended him twenty-four nights, and as he used to accuse the witness of annoying him, he got tired of it and gave it up.

Mr. Denman was cross-examining with a view to show that there was nothing at all to connect these delusions with any homicidal tendency, still less with the particular act of homicide, when

The Lord Chief Justice, at this stage of the case, addressing Mr. Denman, said—Do you propose to controvert this evidence?

Mr. Denman—No, my lord; I am not in a position to offer any further evidence.

The Lord Chief Justice then turned to the jury, and asked them if they desired to hear any further evidence.

The jury said they did not.

The Lord Chief Justice—Gentlemen,—If anyone in his right senses kills another, he is *primâ facie* guilty of murder. And, *primâ facie*, every person must be presumed to be in his right senses, and therefore to be responsible for his acts. But this applies only in the absence of evidence of unsoundness of mind; and there is evidence here that the mind is unsound. Then it is so difficult to trace the workings of a mind which is unsound that the presumption no longer applies; and if the evidence satisfies you that the prisoner at the time he committed the act was not in a state to distinguish right from wrong, and was not capable of controlling his actions, then he would not be responsible for the act he committed, and you would find a verdict of not guilty on the ground of insanity, the effect of which will be that for the future he will be properly taken care of in order to prevent danger of further mischief.

The jury said they were quite satisfied, and returned a verdict accordingly of *Not Guilty*, on the ground of insanity.

The efforts of the prosecuting counsel, Mr. Denman, were evidently directed to prove that there was no discoverable or demonstrable connection between the prisoner's delusions and the act which he committed. For if a man, knowing in other respects the difference between right and wrong, have the maddest delusion which madness can imagine, and if he do murder, and if no direct connection can be traced by others between the delusion and the murder, then, according to the dicta of English judge-made law, the man may righteously be put to death as an example to other madmen. To absolve him from responsibility the criminal act must be the "immediate unqualified offspring" of the delusion. If not, though he would be held incapable of conducting his own affairs, he would be considered answerable for the act. In fact, "the good old" rule of English law, that an insane

person may be a proper object of punishment, is as binding now on English judges as it was generations ago. The influence of the delusion upon the act must be direct and positive; for if an insane person, under a delusion that some one has inflicted an injury upon him, were to kill that person, he would unquestionably be amenable to punishment as a murderer. It is the duty and within the capacity of a madman to know that it is wrong to revenge evil by evil, and that it is right to bless those who persecute and despitefully use him; and if he knows this of a real injury, he must be assumed to know it of an injury which he is under the delusion that he has sustained. The unsound mind, being nowise incapacitated from full healthy function by the disease of which the delusion is a symptom, should entirely isolate its delusion or delusions, just as prudent persons isolate a case of small-pox or other infectious disease, and should not allow it to infect the feelings, thoughts, and acts. With this exception, however: that if the insane person makes a will or does any other civil act to the prejudice of another, under the influence of a delusion that he has been injured by him, his delusion will be assumed to have infected his conduct, and his act will be voided by law. He may make a will under the influence of bad feeling springing from a delusion, and he will suffer the penalty of having his act declared null; but if he does murder under the influence of an exactly similar feeling, springing from an exactly similar delusion, his act will be declared valid, and he will get the benefit of being hanged.

Such being the doctrine of English legal psychology, it was plainly somewhat hard upon Mr. Denman that the judge interposed so decidedly and, by putting a stop to his ingenious efforts to show that there was nothing at all in evidence to connect the prisoner's delusions with the particular act of homicide or with any homicidal tendency, prevented him from arguing that William Charles Minor ought properly to be hanged, as an example to other madmen, and to deter them from the perpetration of a like offence against law. The only medical witness examined stated distinctly that, in his interviews with the prisoner, he had never discovered "anything to connect the act of killing Merritt with the influence of his delusions." Moreover, "on every other subject he was quite sensible, and capable of understanding what was said to him, and of holding rational conversation, and capable upon matters not within the scope

of his delusion of distinguishing right from wrong." So far as the evidence went, it appears then that there was a miscarriage of law, and that the prisoner ought to have been convicted and hanged. It may be hoped, however, that the safety of society will not be much endangered by the issue of the case, more especially as the miscarriage of law was not a miscarriage of justice; on the contrary, the strict administration of the law would without doubt have been the perpetration of great injustice.

Another point to which attention may be directed is what was said by the Lord Chief Justice in his directions to the jury. "If the evidence satisfies you," he said, "that the prisoner at the time he committed the act was not in a state to distinguish right from wrong, and was not capable of controlling his actions, then he would not be responsible for the act he committed, and you would find a verdict of not guilty, on the ground of insanity." Here again we may take up an argument on behalf of law against justice. The capability or incapability of controlling actions has no part in the legal criterion of responsibility; it is not in the bond; why, then, did the Chief Justice introduce it? If the prisoner was in a state to distinguish right from wrong,—if he knew that it was unlawful to commit murder, he was legally responsible, whether he was capable of controlling his actions or not. True it is that an insane person may know right from wrong, and yet may not have the power to control his actions, but the law takes no cognizance of such a mental condition; it is a freak or blunder of nature which the law cannot recognise. To introduce the question of capability of control into the summing up in this case was, therefore, to give the jury an excuse for acquitting, on the ground of incapability of control by reason of insanity, a person who was capable of distinguishing right from wrong. The jury seem to have taken advantage of this outlet. It was evident that Minor was capable of distinguishing right from wrong, and although no direct connection was shewn between his delusion and the homicidal act, it was also evident that the latter was the uncontrolled and uncontrollable act of a madman. The legal custom of attempting to trace the working of an unsound mind and of distinguishing between its healthy and unhealthy action was more honoured in the breach than in the observance.

There was a sufficient cause of mental derangement in the sunstroke which the prisoner was said to have had, and there

was distinct evidence of such derangement furnished by the fact that he had been the inmate of a lunatic asylum, by his brother's testimony as to his delusions when he resided with him, and by the sort of communications which he made to the police. The kind of derangement was hardly perhaps that which a sunstroke alone might have been thought likely to produce, but if there was any hereditary predisposition to insanity, the latent mischief might well have been excited into activity by the cerebral shock.

If we were to draw any medical lesson from the case, it would be a lesson of caution with regard to patients who have delusions of persecution. They are often dangerous to others, and it is most necessary to impress upon their friends how great a risk is run if they are not put under some kind of supervision. "The monomaniac, who has delusions that he is watched continually, or otherwise persecuted, must always be deemed dangerous to others; for at any time he may become so impatient of his sufferings as to make a fatal attack upon his fancied persecutor." The mischief of the matter is that these patients are often so remarkably acute and sensible on all matters outside the sphere of the delusion, that it seems a pity to meddle with them, and cruel to deprive them of their liberty. Moreover, they are cunning, and if they perceive that their delusions have brought them into trouble, they will sometimes conceal and deny them, in order to get rid of supervision. After they have succeeded in getting free, they are not unlikely to bring an action against, or otherwise annoy, those who have had any part in subjecting them to restraint.

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## OCCASIONAL NOTES OF THE QUARTER.

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### *Town and Country as Rival Producers of Intellect.*

The last number of the "Journal of the Statistical Society" had an interesting article, by Mr. Hyde Clarke, on the "Geographical Distribution of Intellectual Qualities in England."

The writer proves, by the use of a numerical test, that the towns contribute most of the intellectual labourers of note,

and that the popular notion that genius is generally of low origin or derived from obscure districts is a mistake. Some "Village Hampden" it is true may adorn the region of politics, but this is an exceptional distinction. It is needless to premise that Mr. Clarke has considered the influence of population, and has not merely enumerated the clever men from given places. He has taken 2,000 names of men of genius or high intellectual powers, and sorted them out into districts, and this forms the basis of his calculations. He says :—

The more important matter is to ascertain how far the external influence of the community has affected the birth or production of men of ability, genius, or celebrity exemplified in intellectual endowment. . . . On the whole such men are rather born in towns than in the country, and examples to the contrary, as those of Newton, Dryden, &c., admit of explanations which neutralise their apparent antagonism.

Speaking of the pre-eminence of London in the production of such men, he says :—

If we test this for other countries, whether in ancient or modern times, we shall find the same thing. Rome and Athens will assert a metropolitan position, and so will Paris. A map of the geographical distribution of such elements will safely mark out the most famous cities of antiquity. A map of England, of France, of Germany, or Italy will show the like modern results. The town population being the smaller portion in each country, yet the larger number of names will belong to the town population, and not to the rural population; and on the whole the names which can be marked as first and second class will belong in the larger proportion to the town population.

Of the 2,000 names three-eighths belong to the country and five-eighths to the town districts.

The following extracts give the main points in the interesting analysis :—

In regarding the distribution among the town population again the unequal distribution gives in most cases a larger *pro ratâ* proportion to the large towns over the small. The most striking case is, however, that of London (333), and as that is supported by the example of other metropolitan cities, ancient and modern, it can be accepted as an authenticated fact that the larger the population the larger the proportion of distinguished men. Edinburgh gives 73, and Dublin 53. The proportion of those metropolitan cities to the whole number is about 22 per cent. Still, on examining the smaller towns among themselves, this by no means holds good. Many small towns furnish more names than those of larger population, and these will be found

to be cathedral and university towns. What is to be marked is the low position of such great modern centres of industry and population, as Manchester, Liverpool, Birmingham, Sheffield, Leeds, Hull, Bradford, &c. . . . The relation of names may, therefore, be considered to be, not to the population generally in gross, but rather to the classes engaged in the pursuit of learning, to the educated classes, and those in easy circumstances. This explains best the phenomena of London, and the preponderant towns, and likewise what may be called the intellectual rise of the manufacturing cities in modern times. . . . It does not appear to be the case, on the whole, that men of distinction spring from the lowest classes, as some assert. It may be that such a man is the son of a poor man, or of one in an inferior trade, but the greater men are ascertained to spring from gentlemanly families or from families formerly in easy circumstances. The popular belief is the other way, because we have books giving the names of those who have risen from the lowest pursuits.

From a table given it appears that out of the 2,000 English writers of celebrity only 58 exercised a mechanical trade, and only 40 were sons of such, thus giving a total of only 3 per cent. connected with such occupations.

The conclusion to be drawn is that intellectual exertion is not manifested in the lower classes, or in the children of such, to the same extent as in those where the means of instruction are more available.

This seems corroborated by a glance at the relative proportion of distinguished men in the several districts of England. The South and South Midland districts contributed 60 per cent., the North and North Midland 17, Wales 1, Scotland 12, and Ireland 4 per cent. The low figures for Wales and Ireland are accounted for by the Celtic language prevailing, the influence of this being further shown by the fact that Cornwall produced 21 and Devon 97 instances, though the two counties join.

London has produced, not only in number, but also in value, a larger portion of the celebrities of the country—Milton, Spenser, Pope, Byron, Chaucer, Cowley, Gray, Surrey, Herrick, Keats, Johnson, Fletcher, Gibbon, Mitford, C. Mill, Camden, Bacon, Canning, Fox, Blackstone, De Foe, Arnold, &c. . . . The facts appear to show that literary attainments are in relation to literary culture, or the culture of the educated classes, and not of the uneducated classes. . . . The development of intellectual improvement cannot be effected by sole exertion of the nervous system, but by the proper application of all the faculties dependent on the physical condition of men. It is, in fact, a creation of selection on the best principles.



*The Alleged Increase of Insanity.*

In his interesting Report of the Surrey County Asylum at Brookwood, Dr. Brushfield makes the following remarks on the vexed question of the increase of insanity :—

The summary of the returns of lunatic paupers chargeable to the various unions in Surrey, on January 1, 1872, shows that there was an increase of 195 during the year; the number on January 1, 1871, being 2,558, and on the corresponding day of 1872, 2,753. This is the largest addition that has been made in any one year to the list of county patients, since the year 1849, when the then recently constructed additional wards of the Wandsworth Asylum were opened. The actual average annual increase during the last five years was 130. In 1862, the number of pauper lunatics was 1810; and in 1849, 843; the latter being less than one-third, and the former less than two-thirds of the number now registered. The rapidly increasing numbers of recognised cases of mental impairment have not of late years been generally accepted as a proof of any enlargement in the proportion of the insane to the sane, but to be owing to a variety of circumstances, the following being the principal :—1. To increase of population. 2. To better registration of the insane of late years. 3. To many being now included who would not have been formerly. 4. To their lives being more prolonged from the better care and treatment they now experience. All these have undoubtedly operated as so many causes in swelling the numbers now registered, but they appear altogether insufficient to explain the large steady and progressive annual increase still going on. Some of our leading psychologists have endeavoured to show by statistics that the increase has been rather apparent than real; but they appear to have erred by commenting upon the numbers admitted into and confined in Asylums alone, thereby ignoring the large section who are inmates of workhouses or are resident with their friends, the great majority of whom never become inmates of an asylum.

In the Twenty-fifth Report of the Commissioners in Lunacy there is at page 5 a table, showing that from the year 1859 to 1871, the rates per 1,000 of the total population of lunatics, idiots, and persons of unsound mind to the general population of England and Wales rose annually and gradually from 1·86 to 2·49, the highest increase in any one being in 1869. The average increase in the ratio of the insane to the sane during the last twelve years was ·0525 per 1,000; in 1869 it was ·08. A comparison of the census returns of this county for the years 1861 and 1871 shows that the population of Surrey had for that decennium about 26,000 annually added to its numbers. It has already been pointed out that during the last five years there has been an increase in the county of 130 pauper lunatics each year, so that during this latter period the *additional* cases of insanity to the

*additional* population have borne the proportion of 1 to 217; or, if the increase (195) during the past year alone be taken,<sup>5</sup> the proportion stands at 1 to 123. Although these facts demonstrate that insanity is progressively increasing in this county, they are not intended to convey the idea that mental unsoundness is more prevalent in Surrey than in other counties. On the contrary, the valuable series of statistical tables published in the last Report of the Commissioners in Lunacy show that whether a comparison be made between the insane and the general population of the country, or with the number of ordinary paupers, in either case, the proportion is about the general average of England and Wales.

On the other hand, Dr. Hearder, in his Report of the Joint Counties' Asylum, at Carmarthen, has arrived at a different conclusion; for which he gives the following reasons:—

In the report for 1870, I expressed a belief, formed after an examination of the returns of chargeable Lunatics, that insanity is not on the increase. This year I have to repeat that statement, and to support it by statistics which indicate strongly that the apparent annual increase in the number of the chargeable insane is due entirely to an accumulation of old standing cases which are only now being year by year brought under notice.

Schedule D., 16th & 17th Vict., c. 97, provides for a return being made on the 1st January of every year, of all lunatics, idiots, and other persons of unsound mind chargeable to each union, specifying the name, age, sex, length of time supposed to have been insane, and other particulars of the individual cases. I have examined the lists for 1871, furnished by the Clerks to the Guardians of the various unions comprised within the counties of Carmarthen, Cardigan, and Pembroke, and have compared them with those of the previous year. Of the 746 cases reported as lunatic or idiotic at the end of 1871, I find that 105 do not appear in the lists for 1870, so that at first sight it might be thought that 105 new cases of mental disease had occurred during the past 12 months. Further examination, however, shews that only 20 or less than one-fifth of that number became insane within the year; 30 had been of unsound mind for many years; 36 were cases of congenital deficiency; and of 7 the duration of the insanity was unknown. In calculating the cases of mental disease that occur in a year, it is usual to consider only those who have become insane for the first time; it is therefore probable that we must make some deduction from the number reported as insane for a period less than one year; but, on the other hand, perhaps some of the 7 "unknown" cases should be added. I think, however, we may consider that 20 is as near as possible the number of those amongst the new cases who have become insane during the 12 months. It therefore follows that the remaining 85 represent an accumulation from former years. Doubtless there is a proportion of the cases that have arisen

during the past year yet unrecorded, and that proportion will swell the returns of future years; but this unknown quantity is in all probability comparatively small.

In the Annual Report of the Worcester Asylum, Dr. Sherlock gives a table, showing the number of patients who were received from the different unions of the county; from which it appears that the nearer the union is to the asylum the greater is the proportion of patients received. As the distance from the asylum is increased, the proportion of patients admitted, compared with the population, is very much diminished. It is not that proximity to the asylum increases madness, but that it makes it easier to send patients to it. The same result has been observed in other counties, and Dr. Sherlock concludes from it that even yet we have no certain data on which to base calculations with regard to the frequency of occurrence of insanity in the population and the actual number of insane poor existing.

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### *Sex and Insanity.*

In the same Report Dr. Brushfield makes some remarks on the relative proportion of insane men to insane women in the county of Surrey. According to the returns of the last census (1871) of England and Wales, for each 1,000 males of the whole population there were 1,056 females. In Surrey the proportion of females was 1.115, being 65 beyond the average. Taking the *insane* of all classes in England and Wales on January 1st, 1871, the proportion of males to females was as 1,000 to 1,182; but in the pauper class it was as 1,000 to 1,242. In the county of Surrey on the 1st January, 1872, the proportion was 1,000 to 1,422, or nearly 2 to 3—a great disparity between the sexes. But Dr. Brushfield does not believe that these figures indicate that women are more liable to insanity than men; on the contrary, he believes the liability to be greater in men:—

Although the registered number of female pauper lunatics always exceeds that of the males, it is not to be concluded that, therefore, they are more liable to attacks of insanity than the latter. There are no means of ascertaining the number of *new* cases retained in work-houses or remaining with friends; but with respect to asylum admissions, the number of males exceeds that of the females: this, and

the fact that in the general population the latter sex far out-numbers the former, demonstrate that the actual liability of the males to mental impairment is far greater than that of the females.

The one great cause of the accumulation of female patients in asylums is the much greater mortality among men. Thus it appears from the Report of the Commissioners in Lunacy that notwithstanding that 68 more men than women were admitted into asylums in the year 1870, and that 226 more women than men were discharged during the year, the mortality of the men was so much greater that at the end of the year there remained of the admissions 130 more females than males. The number of deaths among men exceeded that among women by 424.

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#### *Feigned Insanity.*

In the Annual Report of the City of London Asylum, Dr. Jepson mentions a case which proves, at any rate, that there are worse places in the world than county asylums, in the opinion of one who had some experience of life in them:—

One male patient was discharged as not insane; he was admitted for the first time in February, 1871, with, apparently, delusions and considerable maniacal excitement, which, however, soon disappeared, and after a residence of four months he was discharged recovered. Shortly after he left, the Annual Report of the Asylum for the County of Kent was received, in which Dr. Kirkman so graphically described a man lately under his care who had proved to be an impostor, that there could be little doubt that the patient just discharged was one and the same individual. He was, three months afterwards, again admitted, having been found wandering and taken by the police to the union. Dr. Kirkman was at once communicated with, and he visited the patient here, identifying him as the patient mentioned in his report. Upon these facts being laid before the Committee of Visitors, together with a certificate that the patient was not insane, they immediately ordered his discharge, and the circumstances were specially reported to the Commissioners in Lunacy, who suggested that steps should be taken to endeavour to punish the impostor; their letter, however, was not received until after he had left the Asylum. The man was admitted here under the name of George Hatton; at Barming Heath he was known as George Griffiths, alias George Hattum; and in the year 1861 he was in the Hanwell Asylum with a different name—Watkins—or some similar one, to your Medical Superintendent's personal

knowledge, who has thought it desirable to relate this matter in detail that other officers of asylums may be on their guard.

Dr. Jepson should have told us the character of the man's feigned insanity, and the particular delusions which he thought fit to assume. It seems to us that it is becoming necessary to study carefully the features of simulated insanity. Since it has been made known, by the issue of Lady Mordaunt's case, that a husband whose wife has committed adultery cannot proceed against her for a divorce so long as she is insane, we have seen two cases in which wives, who had gone astray from the paths of virtue, went mad as soon as they were found out. And the madness was of a very suspicious kind. One lady, whose wits were acute enough in most respects, suddenly found out that she was the wife of Prince Arthur, and was particularly anxious to telegraph to him; the other lady broke out all at once into very advanced insanity, in which she declared herself to be the Queen, and looked under her bed to discover the Prince of Wales, who, she said, was concealed there. Her habits were such as are usually met with in prisoners feigning insanity—dirty in the extreme.

It is a curious fact, however, in regard to cases of this kind, that while one cannot help suspecting simulation, one cannot help feeling at the same time that the very feigning of insanity is itself a sort of insanity. Many women who commit adultery have an inherited tendency to insanity; some have a marked insane temperament; and the fall into sin is often the result and evidence of the latent vice of mental organization. This is a fact which every one who is tempted to fall in love with another man's wife would do well to remember; let him beware; the more flattering the demonstration on her part, the greater the danger lying behind. A woman who, for the gratification of a lust, risks or abandons all that most persons hold dear, has a strong tendency in her to be either mad or bad—badly mad or madly bad.

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*Monomania and Depression from Lead Poisoning.*

In the Annual Report of the Waterford Asylum for 1871, the Medical Superintendent, Dr. MacCabe, relates the follow-

ing interesting case, in which the symptoms of mental derangement disappeared as the patient recovered from the effects of lead poisoning:—

A. P., aged 50, married, admitted 17th March, 1871, suffering from monomania, with depressing visceral symptoms, and a fixed idea that people were whispering about her. General health very bad; complains of constant colic, constipation, and obscure pains in back and limbs. On examination, blue line marked on gums; extensors of wrist weak, but no dropping of the wrist. On enquiry, it was found that this woman, in her business, constantly handled white lead, and after so doing often took her meals without washing her hands. The drinking-water she had used was doubtful in character. Disregarding the insanity, she was immediately put under treatment for lead poisoning; and with this result, that in proportion as the blue line faded from the gums and her general health improved, she lost her hallucinations and made a rapid recovery, the improvement in her mental condition and the disappearance of her morbid fancies regularly keeping pace with the elimination of the poison from her system. This patient has since continued well.

As it does not happen that there are any symptoms of insanity in one out of a hundred cases of lead poisoning, it would have been instructive to have ascertained, if possible, what other co-operating condition there was in the above case. Had the woman any hereditary predisposition to insanity, or any other special neurosis? Why, in fact, was it that a cause which usually produces nothing more than mental depression in addition to its physical symptoms, produced actual insanity? The success which followed the proper treatment of lead poisoning shows how necessary it is to attend to the bodily conditions which may accompany mental disorders, and how much may sometimes be done by means skilfully used to cure the bodily disorder.

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#### *Effects of Fright on the Mind.*

In the "Annales Médico-Psychol.," for July, 1871, Dr. B. de Boismont relates a curious incident in the history of the late siege of Paris, as illustrating the effects of fright or a profound shock on the mind.

In discussing some cases, related by American physicians, in which after recovery from severe illness the patients had

no recollection of certain acts they performed while ill, such, for instance, as in typhoid fever making a will and giving minute directions about it, he adds the following passage as a matter within his knowledge:—

“On July 14th last, about 1.45, a tremendous explosion resounded throughout Paris. The percussion cap manufactory at Vincennes exploded . . . . In a house which contained fifty lunatics a curious fact was observed. The maniacal, melancholic, demented, and imbeciles all obeyed their instinct of self-preservation by hastening to look out for the safest place, and for several hours only thought of this terrible event. The projectiles, shells, &c., had struck the house in five places; the roof had been pierced by a shell which had not burst, and which had been put into some water; the necessary precautions were taken, and the asylum had to be watched because of the constantly recurring explosions. The next day a very intelligent lady, who had witnessed the whole affair, was found to have *no recollection whatever of the occurrence*. A great emotional disturbance may then, in a state of health, be effaced from the memory.”

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### *Diagnosis of General Paralysis.*

Dr. Drouet, one of the staff of the new asylum for Paris, at Ville-Evrard, says that since the opening of the asylum in January, 1868, of the 1,400 patients admitted 159 have been cases of general paralysis, and he has written a paper on the difficulties of the diagnosis. He says that in 42 of the 159 there were errors of diagnosis.

He thinks that mistakes may arise in the following conditions:—

1. In certain cases of epilepsy, hysteria, and locomotor ataxy.
2. In some cases of mania, acute and chronic, simple or complicated, with ambitious ideas.
3. In dementia, simple or senile, with motor affections.
4. In some cases of general paralysis with lypemania, or ideas of persecution.
5. In a great number of cases of chronic alcoholism.

The following are also sources of difficulty :—

1. Some cases of paralytic dementia following cerebral hæmorrhage, tumour of the brain, or chronic encephalitis.
2. Cases of lead poisoning with mental symptoms.
3. Cases of progressive muscular atrophy, spinal meningitis, with delirium.
4. Paralytic pellagra.
5. Paralysis from phosphoric or arsenical poisoning, accompanied by intellectual disturbances.

This makes a formidable list ; but it shows how shadowy are our notions even on such a common disease, that so many uncertainties or differences of opinion should be possible.

## PART II.—REVIEWS.

*The Theory of Practice, An Ethical Enquiry.* In Two Books.  
By SHADWORTH H. HODGSON. Longman and Co.

This is far from being an ordinary book. It is replete with deep thought and metaphysical lore. Mr. Hodgson is a metaphysician of the first order. He traces every branch of knowledge to its root in the mind. He shows that every department of physical science has its metaphysical aspect, and must, in ultimate analysis, be tracked to its home in consciousness ; or, in other words, must be subjective as well as objective. The highest generalization arrived at by the men of physical science is that which regards matter as ultimately reducible into atoms pervaded by force. Among these enquirers it is usual to consider that when they have arrived at atoms they stand face to face with the knowable least. Mr. Hodgson contests this opinion, and maintains that they have not analysed their object so far as it is possible to do so, but that even atoms and force have also a subjective side which is inseparable from their objective one. This leads us to the idealism of the author.

It must be understood that Mr. Hodgson is an idealist of the Hume-Mill School. While holding idealistic views every bit as rigid as those of Ferrier, he differs from Ferrier in being given more to induction, analysis, verification, and less



to deduction. While Ferrier starts from one datum, and from that deduces the contents of the "Institutes," Mr. Hodgson brings forward all the prominent facts of mental science, analyses them after his exhaustive fashion, and then points out how they relate to human actions. Having analysed the theory of practice, he afterwards indicates how the theory is to be applied. The theme, as you may imagine, is an extensive one, and Mr. Hodgson devotes to it no less than 1,067 pages. We question the expediency, on the part of a metaphysician, of embarking so much of his capital in one bottom, that is, of course, on the supposition that one who soars so much into the regions *in excelsis* of metaphysic takes into account such ordinary calculations as whether a book will sell and afterwards be read. To our mind the perfection of metaphysical writing is Hume's, and he wrote under the conviction that "in all abstract reasonings, there is one point of view which if we can happily hit, we shall go farther towards illustrating the subject than by all the eloquence and copious expression in the world." Now we cannot help thinking that our author has erred on the side of copious expression, and that he would have produced a more acceptable book had he given us his views in a more condensed shape. The author aims at taking the most general view of his subject, but he seeks to combine with this such an amount of detail that the effect upon the reader is bewildering. Not content with occupying the position of a commander in chief, from which he can, especially with his metaphysical telescope, command an adequate view, for his purpose, of the whole army, he seems to be his own aide-de-camp as well, and to be continually rushing away from his proper post to direct the movements of this brigade and that regiment. The consequence is that the all commanding view is being continually lost in that descent into particulars which, we are disposed to think, could be advantageously spared.

From principle we hold that if a subject is contemplated from a certain level, it is best, for the sake of clearness and efficiency of treatment, to keep to that level as much as possible, and thoroughly explore it. To mix up observations taken at the top of the mountain of knowledge with those taken at the middle and the bottom, more than is absolutely necessary, disturbs that unity which a treatise, like a well-constructed drama, or a well-painted picture, ought to possess. There is a way of using particulars to illustrate ultimate principles without going into an elaborate examination of

such particulars. While we cannot but admit then that Mr. Hodgson is a powerful thinker, and possesses a thorough acquaintance with his subject, we certainly have an impression that he does not excel in the art of book-making. His style is too cumbrous. It wearies one as much as that of Butler's *Analogy*. We perceive that he possesses a mind of the best order, a deeply analytical one, but the effect of this on his style is to overweight it. There is too much of the particularity of an Act of Parliament about his sentences, and consequently the reader feels wearied much sooner than he would in reading the works of authors quite as profound and quite as original—for instance, those of J. S. Mill, Hamilton, and the very metaphysical Ferrier, whose style indeed is about the clearest and the most precise of any with which we are acquainted.

We should say that both the example of Bacon, and of Comte, who, it would seem, aimed at being a second Bacon, and hit the mark, ought to deter philosophers from applying their principles with too little restraint. Who does not now perceive that the time spent by Bacon in applying his inductive method would have been more profitably spent on the more minute elaboration of his principles? For while his aphorisms are still in deserved repute, his application of them to practice is rather amusing than anything else. Again, who will think much of Comte for anything beyond the method which he so ably developed, a method which admits of being perfectly expounded, illustrations to boot, in a moderate sized volume? When Comte attempted to give the world not simply a scale of the sciences, but the sciences in scale, he degenerated into a book-maker, and subjected himself to the depreciation consequent on being deemed shallow and inaccurate by the specialists in each of those branches of science which he undertook to reduce to method. For instance, the mathematicians, judging from his endeavours in their department, inferred that he could not be very profound; and judging from his physiology, Prof. Huxley has warned us that he must not be too implicitly followed. Most readers know what was said of the late Prof. Whewell—science was his forte but omniscience his weakness. It is not uncommonly a characteristic of men who excel in one department to feel also that they can do so in any other, and thus many a great man has, before now, been laughed at for attempting to do that of which, for want of acquired proficiency, he could make but a bungling job.

The present work is a sequel to a former one entitled, "Time and Space: a Metaphysical Essay." Mr. Hodgson follows Kant so far as to hold that Time and Space are the formal elements of phenomena. Unlike Kant, however, he maintains that a perceived phenomenon is not partly subjective and partly objective, say blue mixed with yellow, known to us solely as green; but that the phenomenon is wholly subjective, and, at the same time, wholly objective. Let us hear his own words on this important point. Alluding to his former essay, he remarks:—"In that work it was maintained that phenomena, the whole world of phenomena in the widest sense of the term, and every portion of it however minute, had a double aspect, subjective and objective, was at once a mode of consciousness and an existing thing; but that these opposite aspects of a phenomenon applied to the whole of it, and were not elements constituting it by their combination. It was farther maintained that every phenomenon had, besides this, at least two such constitutive elements metaphysical, and logically discernible in it, but not empirically separable from each other; the inseparable union of which constituted an empirical or complete phenomenon; which phenomenon then had, as a whole, the two aspects just mentioned, so that the same two kinds of constitutive, metaphysical, elements, could be discerned alike in either aspect. These elements were of two kinds, Time and Space, the formal, and Feeling, the material, element; time, or time and space together, entering into all phenomena whatever, along with some mode or modes of feeling; which latter were, however, indefinitely numerous, so that the formal element being of two kinds only, served as the common link or bond between them all." The present work deals with the feelings, which term is here used as embracing all the material elements of a phenomenon, the whole of a phenomenon, that is, with the exception of time and space, its formal elements. Taking, in the first place, after the manner of Comte, a statical view of the Feelings, the author divides them into Presentations or Sensations, and Representations or Emotions, which latter are again divided into Direct and Reflective. In the next place, the Feelings as leading to movement are examined, and Physiology comes under notice. This combination of metaphysics with physiology is called psychology, which we imagine is rather a novel use of the word. This is the dynamical view of the feelings. In the second volume, we have the systematic or synthetical portion of the author's enquiry, as in the first volume we

have the analytic, constituting the preparation for the second part. This volume gives us, in the first place, the Logic of Practice. This is then applied, in successive chapters, to Ethic, Politic, and the Practical Sciences. This exhausts the contents of a most abstruse and elaborate work, full of deep thought, subtle analysis, and extensive knowledge, but most formidable to the ordinary reader; a work, indeed, which we seriously believe no one, except he belongs to the workers of the studious world, would dare to tackle.

We shall not here attempt to enter into any of the details of the author's system, but content ourselves with a few remarks on the general principles of the work. J. S. Mill it is well known is an idealist; but it was not until his examination of Sir W. Hamilton's doctrines that his proclivities in this way were otherwise than incidentally made known; he left room for another. His views in this respect may be described as *a posteriori* idealism. He belongs to a school which, denying that there are any truths independent of experience, also denies that we bear such a relation to the external world as to justify us in philosophically believing that we know it *per se*. Of this school J. S. Mill is *par excellence* the logician, Lewes the historian, Mr. Hodgson the metaphysician.

Mr. Hodgson, in common with Mill and Lewes, expresses great admiration for Comte, but maintains that Comte was wholly in error in denouncing metaphysic. Being an idealist, and holding that phenomena are wholly subjective as well as objective, Mr. Hodgson could not do otherwise than insist that objective observation is never by itself exhaustive. But Mr. Hodgson, while he is an out-and-out stickler for metaphysic, will have nothing to do with ontology; yet he must accept an ontology which is co-extensive with metaphysic, as Ferrier did, else his system will be completely defective, one of Knowing without Being, the Subject without an Object. We admire what our author urges in defence of metaphysic as a method of subjective observation, and perceive that he has fallen under the wholesome influence of what Berkeley teaches in regard to the limits of abstraction. Metaphysic deals only with percepts and that which conclusively follows from them. It avoids making entities of abstractions; such abstractions, for instance, as those for which the phrenologists sought so astutely to find an organ in the brain. Metaphysic deals always with the things containing abstractions, "analyses the phenomena in which they are combined, using

the terms, time, space, and matter, solely to fix and connote the features which are actually perceived in the phenomena. The ontological philosophers, on the other hand, not having drawn the distinction in question, always use such abstract and descriptive terms, words of second intention, as connoting independent things, and in this way make entities of abstractions." Abstract terms "are reasoned upon as if they were phenomena, instead of being descriptions of phenomena; and thus the description becomes an entity, and the philosophy an ontology," we might add, and, in part, a phrenology.

That there is a field of subjective observation, or introspection, is very evident. How, for instance, do I know what another man's feelings are, but by likening them to my own? I am absolutely restricted to my own thought and emotion, and can only by imagination multiply instances of these, and impute them to the beings who bear the same shape as myself, make the same movements, and utter the same sounds as I myself am wont to do. Of the thought of other people I cannot possibly possess any presentative knowledge; I can only know it at second hand. Either, then, all that concerns knowing and feeling is quite incapable of being scientifically dealt with; or, if it be not so, subjective observation is a valid and essential operation of science. So far we perfectly agree with the author. There is a legitimate use of introspection, and an indispensable one; but in exploring the world of mind, care must be taken that facts, percepts, and their valid consequents alone are accepted, and not abstractions arbitrarily set up as facts.

We cannot, however, coincide in opinion with the author when he endeavours to explain, in opposition to Comte's objection, how the facts of consciousness are to be observed. He allows that present states of consciousness cannot be observed. "Past states of consciousness are all that can be observed, and all that need be observed by the applier of the method; and this is done in memory or redintegration, spontaneous and voluntary. Past states of consciousness recalled in memory are objective—that is, are objects to the reflecting consciousness, to the applier of the method of subjective observation. And all past states of consciousness, when recalled in memory, are equally objective." We feel constrained to question the truth of this view of the case. It does not seem to us to get over the difficulty, for a past state of consciousness, as it is called, must, if summoned up out of latency, become a present state. We conclude,

however, that it is better to postpone the further discussion of this point till after we have indicated how the supposed impregnable fortress of idealism is to be taken.

It seems to us that idealism is nothing better than semi-scepticism. It first of all tampers with the facts of consciousness, and having thus distorted them, proceeds to demonstrate that the clear testimony of consciousness is not to be trusted, because it is in conflict with the facts; but in conflict forsooth with what facts? Not the real ones, but the assumed facts of the idealist. Let us suppose the facts of consciousness to be a person in a witness-box giving testimony. Now the existence of such a witness, and the fact that the testimony which he affords is of such and such a nature is beyond the reach of question; but whether his testimony is true or otherwise is quite a different matter. The facts of consciousness, namely, the existence of a mental revelation and its purport, are severally to be likened to the witness and what the witness testifies; but the credibility of what consciousness testifies is to be likened to the credibility of the witness, which is not incapable of being found at fault. Now what the idealists contend for is, that the facts of consciousness are beyond the reach of scepticism. They are, considered as revelations of their own existence, self-verifying, because revelation and thing revealed are identical; and to doubt their existence is impossible, for such doubt would be suicidal by self-contradiction, it being nothing else but a mode of operation of the very instrument which doubts, so the result would be that the doubting instrument would be trying to doubt whether it doubted.

The facts of consciousness then exist beyond all question. But now, when we come to examine the credibility of what the facts declare, doubt is not rendered impossible by self-contradiction. My consciousness, in an act of sensible perception, informs me that there is felt to be as non-identical with the knowing an object externally in relation with my organism. The existence and the purport of this deliverance cannot be questioned. It is thought to be otherwise, however, with its trustworthiness. If we attempt to doubt the truth of this deliverance we are not deterred from doing so, because the revelation and thing revealed are non-identical, and therefore the former is not self-verifying; and because the doubt, since in this case it does not question the existence of the doubting instrument, is not suicidal. Still, although the facts of consciousness are unassailable, while the testimony

of consciousness is said not to be, it would, nevertheless, be unbecoming for reasonable men to distrust the testimony simply because such distrust is not impossible, or not so well guarded against doubt as the facts, especially when it is considered that, in practice as opposed to speculation, no man can by any amount of effort reverse his perceptive convictions—those convictions which are common to all the race, and are doubtless shared also by the more intelligent brute animals. But in justice to the idealists, it must be admitted that their scepticism has never been gratuitous. It has always had the appearance, to them at least, of being based on facts, even the indubitable facts of consciousness. Comparing the evidence of knowing with the facts of knowing as understood by them, a contradiction has been observed between the two; but since the facts are unassailable, while the testimony is not, they have no option but to reject the latter as in theory not to be trusted, and to frame their system accordingly. But are the facts and the testimony in conflict? Why does idealism, if true, go so roughly against the grain of human nature when unsophisticated by philosophy? Is the “root of our nature a lie?” What we maintain is that really they are not in conflict with each other; that the conflict is only apparent, owing to the distortion on the part indeed of almost all metaphysicians of the facts of consciousness.

We all know how ardently and persistently Reid combated the idealism of Berkeley; how he believed that it was the “ideal hypothesis” alone which afforded a basis for a doctrine so violently opposed to the spontaneous convictions of mankind; and how he believed that by exploding the ideal hypothesis he did not leave idealism a leg to stand upon. Subsequent investigation has not, however, established the supposed victory of the champion of common sense. No man laboured more earnestly, powerfully, and intelligently, to win the battle so bravely fought by Reid, than Hamilton. Combining with great speculative talent a marvellous capacity for the acquirement of knowledge, he undertook, as a work of love, to carry on the task which Reid had so earnestly commenced. That the world is deeply indebted to Hamilton for his profound researches is unquestionable, but after all his strenuous endeavours to establish natural realism on a secure basis, it must have been mortifying to him to behold such a star as Ferrier appearing in the firmament, and that too the firmament of Scottish metaphysic. Now, the very fact that Ferrier, who

must have possessed a most intimate knowledge of Hamilton's doctrine, grew nevertheless into a full fledged idealist, proves to our mind, more cogently than J. S. Mill's examination, that Hamilton failed to establish his point. The way in which we account for his failure is this—we do not believe that he set forth the facts of consciousness in their true light, but left them still obscured by that obfuscation which gives them a false appearance, and renders them a basis for idealism. Indeed we are now fully convinced that few, if any, have really entered into the full significance of Reid's theory of immediate perception. Hamilton believed that he clearly understood Reid. That may be, but then he thought Reid in error on a certain vital point, and that, as it seems to us, is the point on the determination of which the result of the contest depends. "Suppose," says Reid, "that once, and only once, I smelled a tuberose in a certain room where it grew in a pot, and gave a very grateful perfume. Next day I relate what I saw and smelled. When I attend as carefully as I can to what passes in my mind in this case, it appears evident that the very thing I saw yesterday and the fragrance I smelled, are now the immediate objects of my mind when I remember it." Reid's critics, and even his admirer—Hamilton—feel assured that he has here committed a gross mistake, for the immediate object, they one and all insist, is not the tuberose he saw yesterday, but the thought representing it in the mind. The question involved in this dispute is whether, in order to be conscious of an object, either that object must be present or its representation—itsself if perceived, its representation by the mind if remembered. Reid manifestly held that perceptive knowledge did not involve the presence of an object, nor memory the presence of a representative object. Speaking of Reid's peculiarity in this respect Hamilton remarks that "he has, at least in words, abolished the distinction of presentative and representative cognition. 1<sup>o</sup>, he asserts, in general, that every object of thought must be an immediate object; 2<sup>o</sup>, he affirms in particular, not only of the faculties whose objects are, but of those whose objects are not, actually present to the mind—that they are all and each of them immediate knowledges. Thus he frequently defines memory (in the sense of recollective imagination) an immediate knowledge of things past; he speaks of an immediate knowledge of things future; and maintains that the immediate object in our own conception (imagination) of a distant reality is that reality itself." Reid, in the question here at issue, seems



to us to be quite right, and his critics wrong; although we are far from holding that Reid has not often laid himself open to criticism and misconception in the exposition of his doctrine. It is only lately, after pondering over this abstruse question at various intervals during the course of above twenty years, that this view of it has burst suddenly upon our mind. We now see Reid's doctrine of immediate perception in a light in which we never saw it before. By immediate knowledge we cannot conceive that Reid meant anything more than knowing a thing without any medium, at first hand, truthfully, or as it is to be known; and that it could thus be known, even though the nerves which convey the stimulus to the brain, for they convey nothing more, were as long as the Atlantic Telegraph Cable. That the knowing should be present *there where* the object is declared to be, would yield no advantage. Knowing is simply a revelation, and if the revelation be at first hand, and not through a medium, that is all that is really essential to constitute it an immediate knowledge. Bringing a perceptive organ into the immediate presence of the foot would cause no difference in regard to what it revealed concerning the foot, the revelation would be nothing more than a revelation, of course it would not be the foot as well, an object clearly declared to be non-identical with the cognition of it. Knowing, it is very important to bear in mind, is absolutely simple in nature; it is nothing more than knowing. It is not a synthesis of subject and object, as Ferrier tried to make out. It is not a fact in which there is logically discernible a subjective and an objective aspect as Mr. Hodgson wishes to prove. All such descriptions of knowing are erroneous, the remains of that ideal hypothesis which Reid so manfully struggled to explode. When he thought of the tuberoso, he felt that he had present in his mind absolutely nothing but the knowing of it, and that this knowing was not compounded of knowing and thing known, but was manifestly simple knowing only. He felt positive that it was the tuberoso he was thinking about, and not the representation of it in the mind. He felt assured that he was not even thinking of the tuberoso by means of a representation as a medium. What he felt was that between his thinking and the real tuberoso there was no medium whatever, and that it was a great mistake ever to think that such a medium was necessary even in memory, much less in perception.

The result of making knowing a compound, subject *plus*

object, is to make it appear that the testimony of consciousness is not to be trusted. For, argues the idealist, basing his reasoning on the above misconception, the immediate and only object really known is the mental one, which is but another aspect of the knowing. Cognition and thing cognised, quoth he, are one and the same fact viewed in two different relations. Whereas then intelligence, as a Catholic revelation, declares that, in sensible perception, the object known is not identical with the knowing of it; the idealist, wiser than his own nature, declares the contrary. But what is this object which, in contradiction to our fundamental intelligence, is pronounced, with such unblushing effrontery, to be one and the same with the consciousness of it? Simply a hypothesis, a misconception, a blunder.

Let us imagine that we are gazing upon two stones, and let the problem be, how stone A is to be made to exist to stone B. The only reply which offers itself is, that B must be endowed with an intelligence which will enable it to become cognizant of A. But when B becomes aware of the existence of A, B is put into possession of positively nothing more than the consciousness of A's existence. The knowing is nothing more than knowing, it cannot be the known as well. It is only figurative language then—and very vicious, misleading language too—this practice among metaphysicians of describing knowing as consisting of two elements, when it is indeed a pure simple, a beginning, too, which cannot be explained for the very evident reason that there is nothing beyond the beginning wherewith to explain.

We are now going to be more idealistic than the idealists, to out-Herod Herod. We assert that we possess in consciousness no objects whatever. We possess revelations concerning objects, but the objects themselves are to us, and, indeed, to any other kind of intelligence, as far as we can see, never possessed. But what more can we conceive possible? How can knowing be understood to be anything but itself? And what is knowing? That which reveals to us the existence and nature of objects. As an intelligence, there is, to me, no space, but simply the knowing of space; no body, not even my own body, but simply the knowing of body. We may ask, in amazement, how can these things be? But we must learn to understand that when we have come to the beginning, and knowing is a beginning, we cannot launch out beyond. We cannot explain that which underlies all explanation; we can neither prove nor dis-

prove the veracity of an intelligence which underlies all proof and disproof.

The idealists may think that this is a doctrine identical with their own, but it is not, for whereas they give the lie to what knowing reveals, and in an incomprehensible fashion attempt to improve its morals, we reverently place confidence in its veracity, and by a speculative voyage right ahead of theirs, discover that we have arrived at the very point from which we started, namely, natural or practical confidence in the trustworthy character of the fundamental convictions of mankind. Of course, in this brief space, we could do no more than indicate how natural realism is to be established in opposition to idealism, and point out the rock on which Hamilton's doctrine has been wrecked, namely, failing to see that Reid is right when he insists that knowing does not involve the presence, the mental possession, the proprietorship of any object, and that even were such an object granted, it is quite impossible, in ultimate analysis, to comprehend what it can be; for if it is *not* knowing, we possess only the knowing of it; if it *is* knowing, then it is no object, for knowing is simple, nothing but knowing. This leads us to the question which, a few pages above, was postponed till after this inquiry had taken place. That question is, how is subjective observation possible? We now answer that since knowing is absolutely a simple, and never has a mental object, face to face with itself, as an essential of its existence, subjective observation can only consist of an act of knowing being self-conscious, it knows itself. Indeed, we cannot conceive how, if it did not know itself, it could have any existence. Knowing is simply a revelation, and must, of necessity, reveal itself as the condition of revealing that which is not itself. At the same time, it is not in the operation of the faculties on some other question that knowing admits of being examined, but when knowing itself becomes the theme. The introspective element of knowing is then called into fuller operation than when knowing is concerned with something other than itself. But, indeed, in considering this momentous point it is well to realize the fact that all our intercourse, as intelligent beings, is with knowing alone. Facts, things, objects, events, are never possessed by us, we are entirely restricted to the knowing of them, and all that we need be anxious about is that we know, as it is right we should know.

W. G. D.

*The Dæmon of Socrates.* A Paper read before the Royal Institution, Jan. 26th, 1862. By HENRY EDWARD, Archbishop of Westminster.

A lecture given by a learned and influential dignitary of the Roman Catholic Church on a fact in the psychology of the greatest philosophical mind of the ancient world would at any time be of considerable interest. It is of special interest at the present time, when questions affecting religion are the great questions of the age. Furthermore, when we are told that we are developing some of the moral and intellectual evils which went before the fall of imperial Athens, at a time when Socrates lived and protested strongly against the vices and weaknesses then prevailing, it behoves us to take heed to the teaching of an eminent thinker, and to profit by the criticisms of an accomplished scholar. Archbishop Manning has condensed in his lecture a large amount of knowledge respecting Socrates, or, as may be more truly said, has given us the opinions of a great many writers, philosophers, historians, and critics, on the particular subject of his lecture—the *δαιμόνιον* of Socrates. What Socrates himself meant when he used the word *Dæmonion* is naturally what we should like to know. Unfortunately we cannot get any direct information from Socrates himself. For after giving us the speculations of Plutarch and Plato on the “familiar voice,” the lecturer says—

We may now dismiss these speculations, and come back to Socrates and learn from himself what he understood and intended us to understand by his *Dæmon*, or *Dæmonium*.

But here again we are brought to a stand still. We cannot interrogate Socrates himself. We can only get to him by hearsay. Between him and us stand Xenophon and Plato. It is, after all, Xenophon and Plato, not Socrates, who speak to us. Worse than this, Xenophon and Plato do not agree in what they tell us; and worst of all, what they tell us evidently takes form and colour from their own minds.

It is not very satisfactory to be told to come back to Socrates himself, and then in the same breath to be told that we cannot get to him. It is still more discouraging to find that the only two trustworthy witnesses in personal contact with Socrates do not agree in what they tell us; and, most of all, that what they tell us evidently takes form and colour from their own minds. Considering the utter impossibility of ascertaining the real facts, it might occur to an ordinary

mind that we may believe the Dæmonion of Socrates to be very much what we like to believe. He who thinks that conscience is the voice of God can say that the Dæmonion was conscience. He who thinks that a well formed organisation, well taken care of, is the best fitted for the purposes it has to fulfil, can say that the Dæmonion was "a mature and experienced reason." It was perhaps not the least wise saying of the many wise sayings credited to Socrates that, "It is not worth while to speak of the divine sign which comes to me."

We proceed to give briefly the testimony of the two witnesses. Xenophon says:—

It was in the mouth of men that Socrates declared that the τὸ δαιμόνιον made things known to him, or gave him signs by which to know them. For he thought that the gods had care of men in a way unlike that which most men imagine, for they suppose that the gods know indeed some things, but do not know others. But Socrates believed the gods to know all things, whatsoever things are said or done, or purposed in secret, and that they are everywhere present, and that they make human things known to men.

According to Plato Socrates says:—

I happened to be providentially sitting alone in the place where you saw me, in the dressing room (of the Lycæum), and I had in my mind to be gone. When I got up the accustomed sign, the Dæmonion, came; I therefore again sat down.

Soon after came Euthydemus and his companions.

Again—

When I was about to cross the river the Dæmonion, the accustomed sign, came, which restrains me when I am about to do anything, and I seemed to hear a certain voice, which did not suffer me to proceed until I should have expiated myself, as having in some way offended against God.

Xenophon and Plato agree as to the impersonal nature of the Dæmonion. Xenophon, however, ascribes to it the two-fold office of suggestion and restraint. Plato ascribes to it expressly that of restraint only.

Amongst modern critics, Bishop Thirlwall says:—

Socrates, who was used to reflect profoundly on the state of his own mind, had, it seems, gradually become convinced that he was favoured by the gods with an inward sign, which he described as a voice.

Mr. Grote says:—

We have also to note that marked feature in the character of

Socrates, the standing upon his own individual reason, and measure of good and evil—nay, even perhaps his confidence in it so far as to believe in a divine voice informing and moving him.

Mr. Riddell, of Balliol, says :—

If, then, declining Socrates' account, we are disposed to refer the phenomenon to ordinary psychological causes, we can do so satisfactorily, provided we confine our attention to Xenophon's account alone. All Xenophon's notices of it encourage the view that it was a quick exercise of a judgment, informed by knowledge of the subject, trained by experience, and inferring from cause to effect, without consciousness of the process. In a mind so purified by temperance and self-knowledge, so single of purpose and unperturbed by lower aims, endowed with such powerful natural faculties, especially those of observation and causality, the ability to forecast and forejudge might almost become an immediate sense.

Archbishop Manning says :—

It would be too narrow an explanation to refer the signs of this monitor to the action of conscience alone ; for conscience is only one office, or one function, of the reason of man. Nevertheless, it is certain that in a large part of that which Socrates referred to the Dæmonion, conscience was directly present and perceptibly in action.

When we find that Plato and Xenophon, the only two biographers of Socrates, and from whom alone we can obtain any knowledge (and that hearsay), of Socrates, differ in their interpretation of the monitor—the divine agency—the *divinum aliquid*—the mature reason—the common sense—the *conscientia*—the *dictamen rationis*—the voice of God, which not only directed Socrates when to speak and to whom to speak, but also revealed to him the secret of avoiding being run over by pigs, we do not think anyone can be blamed if he is sceptical with regard to the amount of knowledge of the mind to be derived from the introspective researches of metaphysicians. When the latest critic and reviewer of the judgment of others respecting the Dæmonion of Socrates in one part of his lecture says—"The heart has beat and the blood has circulated from the beginning of time; yet we take the physiology of Harvey as to the blood rather than that of Hippocrates. The ethics of Aristotle are, in analytical depth and precise delineation, conspicuously in advance of the method and teaching of Socrates. In this the disciple is above his master, and we may be above both,"—we may be excused if we venture to ask whether there is any reason why we, considering that mind has thought from the beginning of time,

may not take the physiology of modern authorities as to the mind, rather than the philosophy of Aristotle? And if the probability of our being in advance of Aristotle in ethics is a justification of the exercise of our criticism, are we likewise justified in quoting him as an authority that has never been surpassed? For in a subsequent part of his lecture Archbishop Manning says:—

The ethics of Aristotle analyse, lay out, distinguish, and define the intellectual and moral processes of the human mind—modern metaphysicians must bear with me—with a truth which has never been surpassed.

It is not at all improbable that Socrates, who never dreamt of the trouble his Dæmonion would give to posterity, did not know why he could do right when so many did wrong. So he ascribed it to the unknown. It is not unusual for minds to attribute to superhuman agency all facts which are not explicable by known laws. Socrates cross-questioned man, and obtained as much knowledge of mind as ever can be obtained by that process. Bacon, perceiving that, cross-questioned nature, the things that be, including man—a rather remarkable fact. Socrates and Bacon were the forerunners of science. The one revealed to man the mental faculties he possesses. The other taught him their rational use. The result is the application of mind to the attainment of a knowledge of things, mental and physical. Socrates was justly charged with destroying old gods. Science continues the destructive process. After a learned disquisition on the philosophical and scholastic definition of conscience, the lecturer goes on to say that—“The prudence of Socrates was his own moral state, and yet *non sine numine*, for we may well believe that to him was granted no common share in the ‘light that lighteth every man that cometh into this world.’” It may be observed by the way that the “light that lighteth every man that cometh into this world” is *ὁ λόγος* not *ἡ συνέδησις*.

In the midst of an intellectual frivolity and a moral degradation never surpassed in the history of mankind, made all the guiltier by reason of the refined culture and luxurious civilisation of Athens, Socrates bore witness until seventy years of age to the supremacy of prudence, justice, fortitude, and temperance, the four perfections of man in the order of nature. Whether the estimate I have given of the Dæmonion of Socrates be true or not, the inquiry in which we have been engaged is manifestly not a barren speculation. It sets before

us a great moral example, it teaches us a great moral law necessary to men at all times—vital to us in these declining days. \* \* \* \*  
 Vital, I say, at all times and in all lands; but nowhere more in season, and more wholesome than to us, who, in the sudden growth of a vast maritime empire, splendid and unstable for its very greatness, in the refinements of luxury, and the inundation of a stupendous prosperity, seem to be developing some of the moral and intellectual evils which went before the fall of imperial Athens; political factions, licentious freedom, sophistical education, a relaxation of moral and religious traditions, a growing scepticism, an unstable public opinion swayed to and fro by nameless hands, and by irresponsible voices. In such a public state Socrates lived and died, bequeathing to us this lesson—that conscience is the voice of God.

In such a public state Socrates lived and introduced *ἔτερα καὶ δαιμόνια*. May we suggest the example of Socrates for imitation now? Are not the times, indeed, ripe for the introduction of *ἔτερα καὶ δαιμόνια*?

W. M.

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*As Regards Protoplasm.* By JAMES HUTCHINSON STIRLING, F.R.C.S. and LL.D. Ed.—New and improved edition, completed by addition of Part II., in reference to Mr. Huxley's second issue, and of Preface, in reply to Mr. Huxley's "Yeast." Longmans and Co. 1872.

This is a second edition of Mr. Stirling's elaborate criticism of Mr. Huxley's well-known essay on Protoplasm. It is enlarged by the addition of a second part, which deals with Mr. Huxley's professed repudiation of materialism in the same essay; Mr. Stirling endeavouring to show that Mr. Huxley does not know his own mind, that he is a materialist, whatever he may think to the contrary, that he has not the "very smallest reason for refusing for himself the name of materialist." In a preface the author replies to some strictures on his first pamphlet made by Mr. Huxley in an article entitled "Yeast," which appeared in the *Contemporary Review*. The whole performance, therefore, is of a thoroughly critical character, and produces some degree of that feeling of vanity and vexation of spirit which criticisms and replies to criticism are apt to occasion. Considering how easy is misunderstanding, and how frequent is misinterpretation, it is always something of a puzzle to us why anyone ever takes



the trouble to criticise another in print, and why the criticised ever takes the trouble to reply. However, the first part of this criticism, that which formed the whole of the first edition, is decidedly able and instructive, and brings into due prominence an aspect of the subject which readers of Mr. Huxley's essay might easily overlook. But it is impossible to speak favourably of the tone which Mr. Stirling adopts; it is sometimes singularly unbecoming, to say the least of it. There are proprieties of tone and style which a critic should not forget in writing of an eminent man, any more than he should forget them in conversation with him. If Mr. Stirling had lived more in the world, and less in the library, or in the provinces, than we, judging from his style, should imagine him to have done, he might have written an equally instructive essay in much better taste. For it is not only the tone which is bad, but the style is often repellent. Mr. Stirling appears to do his best now and then to place the words in a sentence in as unusual and awkward manner as possible, and seems pleased when he succeeds in expressing himself in as German a style as he can achieve: from an unnecessary straining after effect; for it is quite evident that he can, when he is so minded, use a clear and forcible style of his own.

The main object of Mr. Stirling's criticism is to prove that there is not that identity of substance in the various forms of protoplasm which is assumed in Mr. Huxley's celebrated essay. Against the category of identity he maintains the equally authentic category of difference. "Mr. Huxley is not authorised," he says, "to speak of a physical matter of life; which, for the rest, if granted, would, for innumerable, and, as it appears to me, irrefragable reasons, be obliged to acknowledge for itself, not identity, but an infinite diversity in power, in form, and in substance." From the earliest moment, brain-cells only generate brain-cells, bone-cells bone-cells, and so on. He next endeavours to prove that the functions of protoplasm are not the properties of its mere molecular constitution; that there is a step added which is not molecular at all—organization and life. "The very protoplasm of the nettle-sting, with which Mr. Huxley begins, is already vitally organized, and in that organization as much superior to its own molecules as the steam-engine, in its mechanism, to its own wood and iron." Then follow the familiar argument, forcibly put, about the inadequacy of inorganic elements to account, first, for the objective idea of

design discoverable in vital organization, and, secondly, for the subjective idea, for the phenomena of thought as thought.

This universe is not an accidental cavity, in which an accidental dust has been accidentally swept into heaps for the accidental solution of the majestic spectacle of organic and inorganic life. That majestic spectacle is a spectacle as plainly for the eye of reason as any diagram of mathematics. That majestic spectacle could have been constructed, *was* constructed, only in reason, for reason, and by reason. From beyond Orion and the Pleiades, across the green hem of earth, up to the imperial personality of man, all, the furthest, the dearest, the dustiest, is for fusion in the invisible point of the single Ego—*which alone glorifies it. For* the subject, and on the model of the subject, all is made.

Well, one may say with Lear—

“ If it be so,  
It is a chance that does redeem all sorrows  
That ever I have felt.”

But we had thought such an outburst of human conceit and infatuation impossible in these days, at any rate in a scientific essay.

The second part of Mr. Stirling's essay pleases us the least—the part in which he labours to prove that Mr. Huxley, who has repudiated materialism, is nevertheless a materialist. He falls foul of Buckle, Mill, and Bain, as well as Huxley, and, from the height of his philosophical platform, disposes summarily of their pretensions to philosophy, so far as regards their views of the nature of causation. But Mr. Stirling has peculiar notions of the relative weight of different authorities. In one part of his essay he says that he could bring forward against Mr. Huxley the counter testimony “of experts of equal, or perhaps higher, rank than even Mr. Huxley,” and mentions Beal, Bastian, Gamgee, Dr. John Brown, and Dr. Hodge, of Princeton!

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*Handbook of Law and Lunacy; or, the Medical Practitioner's Complete Guide in all matters relating to Lunacy Practice.*  
By JAMES T. SABBEN, M.D., and J. H. BALFOUR BROWNE, Esq.

This book contains a useful summary of the legal enactments relating to Lunacy, so far as they concern medical

men. It is just such a book as the medical practitioner, when he has to take steps for placing an insane person under legal control, or has any other lunacy business on hand, may refer to for the information which he requires. If he be called upon to sign a certificate for the admission of a private patient into an asylum, or, as the authors put it, *for the like incarceration* of a pauper, he will find instructions as to what he must do. The authors might properly improve upon that expression, should they have occasion to prepare a second edition. In the next page "medical physiology" occurs where the context shows that medical psychology is what is meant.

There are some other indications of haste or insufficient care. Thus, when speaking, a few pages further on, of the method of examination of an alleged lunatic, they say that "it is desirable, after an exchange of the ordinary civilities, to refer at once to the state of his or her health, as this is a matter in which all are interested." Now, seeing that some insane patients resent the notion of there being anything the matter with their health, and would get angry and suspicious if any question was put to them on that subject, this would certainly be an undesirable rule to adopt in all cases. Indeed, the health is the very subject which the medical examiner must sometimes avoid reference to in difficult cases.

We do not share the author's profound respect for "some admirable observations" of the Earl of Shaftesbury upon the question of medical testimony in reference to questions of insanity; the admirable observations being "that persons of common sense, conversant with the world, and having a practical knowledge of mankind, if brought into the presence of a lunatic, would in a short time find out whether he was or was not capable of managing his affairs."

Conciseness is certainly a virtue in a book of this kind, but at times we are disposed to think that the authors have made their pages almost too brief a summary of the Acts of Parliament. Fuller information and more explicit directions, even at the cost of some repetition, would be more useful probably to the inexperienced person who refers to the Handbook for the first time. In such a book the subject should be looked at as much as possible from the point of view of the medical practitioner who is "quite at sea" when he has to deal with the legal control of an insane patient.

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*Criminal Psychology.*

*Parliamentary Blue Books: Reports of Directors of Convict Prisons, in England, Ireland and Scotland, for the year 1870.*

The last Annual Report of the Directors of Convict Prisons for England contains the usual general statistics as to the work, the discipline, and the health of our convict population for the year 1870. The psychological information furnished by the various medical officers is much more meagre than we should expect when a large body of criminals are being treated of, and refers almost exclusively to the insanity and weak-mindedness occurring among them; little or no notice being taken of the mental condition of the mass, whether generally or in relation to the effects of imprisonment upon it.

We find that the average number of convicts for the year was 9132, of whom 7942 were males and 1190 females.

So far as convictions and sentences to penal servitude go, the indications afforded by the year 1870 are certainly favourable.

The Directors say that "the true measure of the amount of crime is shown by the number of convictions and sentences to penal servitude passed during 1870, which is considerably less than during the year preceding, and *falls below the number in any year on record.*" In 1869 there were 2006 sentences to penal servitude in England and Wales, and in 1870 there were 1788. A table is given with the crimes of 1436 male convicts received during the year 1870, not previously sentenced to penal servitude. These we summarise as follows, so as to give a general indication of their nature:—

|  |     |     |     |      |
|--|-----|-----|-----|------|
| Burglary, Larceny, and Felony                                    | ... | ... | ... | 941  |
| Assaults and Violence  | ... | ... | ... | 166  |
| Rape, lewd and indecent crimes                                   | ... | ... | ... | 87   |
| Embezzlement, Forgery, and Fraud                                 | ... | ... | ... | 57   |
| Arson  | ... | ... | ... | 46   |
| Manslaughter   | ... | ... | ... | 26   |
| Murder   | ... | ... | ... | 7    |
| Various Misdemeanours, Coinage Offences,<br>Cattle Stealing, &c. |     |     |     | 106  |
|  |     |     |     | 1436 |

When a convict becomes insane, or when prolonged obser-

vation of his state of mind is deemed advisable, he is sent from the other Government prisons to Millbank, whence, if necessary, he is transferred to Broadmoor Criminal Asylum. Consequently, the report of the medical officer of that prison contains the principal information on the insanity occurring in all the prisons.

Mr. Gover, after commenting on the satisfactory condition of the prison, goes on to treat of the subject, and we give his remarks and illustrative cases in full.

The number of convicts certified to be insane was 27, one less than in 1869. Of these, 25 were insane on reception, viz., 12 from Government prisons, and 13 from county and borough gaols. The 13 from the county and borough gaols may be assumed to have been insane on conviction, as they were received here shortly afterwards. In two cases only out of the 27 did the mental disease arise in this prison, and in both cases a tendency to insanity had existed previously. No case came under my observation, of which it could be said that the mental disease had been brought on by the discipline of the prison. In my report for 1869, I pointed out that the great majority of the convicts certified as insane in that year had been previously convicted, many of them several times. The same observation holds good of the 27 convicts certified in 1870. As many as 24 are known to have been convicted on several previous occasions, leaving only three against whom no previous convictions are recorded. The moral obtuseness of habitual criminals graduates insensibly into insanity, and a similar remark would apply to those prisoners who habitually commit breaches of discipline. Owing to want of accommodation at Broadmoor, only 12 of the insane prisoners remaining from 1869 and certified in 1870 were removed to an asylum; and the average daily number of certified lunatics in the prison was consequently as high as 24.

In the treatment of an insane patient, it is of great importance to engage his attention, and this cannot be done without the means of interesting him in some occupation, or providing him with amusement. By such means healthy feelings and impressions may be awakened, under the influence of which morbid thoughts may give way, and the light of reason by degrees be restored. This line of treatment has been carried out, as far as circumstances have permitted, with good results. The following cases are of some interest:—Convict A. F., æt. 39, described as a bricklayer's labourer, was sentenced in January, 1866, to 7 years' penal servitude, for "receiving money, knowing it to have been stolen." He had previously been a soldier, and had spent no less than three years in military prisons for drunkenness, desertion, &c. He had also been three times imprisoned by the civil authorities, once for larceny and twice for assault. Having served upwards of two years of his sentence of penal servitude, he

became suddenly depressed without any apparent cause, and was shortly afterwards seized with vertigo, followed by loss of memory and intermittent paroxysms of mania. After a period of some months, during which the attacks of mania became very frequent, he passed into a more tranquil condition, marked by incoherence and various delusions, and was eventually certified as insane. Convict J. B., while undergoing a sentence of 18 months' imprisonment at Chester Castle for burglary, made an attempt to murder one of the warders, for which he was tried and sentenced to 15 years' penal servitude. Nothing peculiar was observed in his manner or appearance on his reception, but he had not been long in the prison before he began to conduct himself so strangely as to lead to his being placed under special medical observation; and in the end, after a long period of close watching, the result was to show that he was undoubtedly of unsound mind, and likely to fall by slow degrees into a state of confirmed dementia. And yet so completely was his disease masked at the time of his reception into this prison that, in all probability, if his attempt to murder the warder at Chester had been successful, he would have been sentenced to death and executed, though not morally responsible. Convict H. K. was formerly a soldier in the 76th Regiment. In January, 1867, he was sentenced to eight years' penal servitude for assaulting his superior officer, and, having passed through the usual term of separate confinement, was removed to Chatham for hard labour. He soon afterwards committed several very serious prison offences, apparently without motive, and was accordingly removed to Millbank for observation. His case is chiefly interesting as showing that acts of mere violence and insubordination may be the first symptoms of insanity. Convict J. C., æt. 35, had spent his life alternately in tramping about the country, and in undergoing punishment in prison. He was a typical example of the imbecile thief, utterly unable to earn an honest livelihood, and impelled to steal by an instinct of self-preservation.

After relating another case or two, he proceeds—

I have before drawn attention to the fact that as a rule the rate of insanity is higher amongst the males than the females, and this remark continues to hold good. In the year 1870 390 men and 277 women were received from the county and borough gaols; 13 of the former were certified to be insane, and not one of the latter. The disparity, however, between the two sexes in regard to mental disease is not so great as might be inferred from the above statement. It is due, to some extent at least, to the fact that the forms of insanity are different on the two sides of the prison, and that amongst the women there is much unsoundness, which differs in its manifestations from the unsoundness of ordinary lunatics, and has not hitherto been held to warrant the removal of women who are the subjects of it to a lunatic

asylum. I allude to a group of women, whose symptoms appear to be due essentially to a deterioration of volition and a loss of power of controlling or co-ordinating the thoughts, feelings, and impulses of the moment. In many of these cases hereditary defects have doubtless been aggravated by the influence of bad example and vicious training. Knowing what is right, they are impelled by an irresistible impulse to do wrong, and many of their violent and capricious acts, which are apt to be attributed to bad temper, are in reality due to inherent defects which remove them beyond the limits of responsibility. In most cases they are free from delusions, as well as from illusions and hallucinations, and there is no defect of intellectual or reasoning power. More frequently their unsoundness is manifested by exaggerated passion, by absurd and violent conduct, and a disproportion between acts and motives. There can be no doubt that they are a torment to themselves, and a source of unceasing anxiety to those in whose charge they are placed.

With regard to the weak-minded or imbecile class of prisoners who are retained in prison, but who are put under special discipline and treatment, Dr. Campbell, the Medical Officer of the Invalid Prison at Woking, thus speaks—

They displayed the usual characteristics of that class, such as excitability, eccentricity, impaired memory, vacancy in the expression, often marked peculiarity in the countenance, formation of the head, and in some the ears are thickened and pendulous. With the sullen and irritable, abstinence from food is sometimes indulged in, not because it will prove injurious, but evidently with the view of gaining some object, and in some instances they have persisted to such an extent as to require the administration of remedies to counteract the consequent depression. The same class are also destructive as regards clothing, bedding, cell furniture, or indeed anything within reach, and their persistency in that line of conduct is often remarkable. They are also subject to sudden fits of excitement, when they have assaulted officers and their fellow-prisoners without any assignable cause. When guilty of acts of violence, or in other ways misconducting themselves, they may talk rationally and appear perfectly conscious they have done wrong, still the power of controlling their vicious dispositions appears to a great extent wanting. In nearly all the previous convictions are rather numerous, and this, coupled with the precarious mode of life led by the men out of prison, appears to make them less sensible to the feeling of hunger, and for that reason the punishment of bread and water, as well as reduced diet, has not the usual deterring effect. On the contrary the result of many years' experience leads me to believe that depressing measures are not only attended with little permanent benefit in the case of imbeciles guilty of mis-

conduct, but as they impair the bodily health the mind is also likely to become more affected.

He thinks that constant employment in the open air, as agricultural gangs or otherwise, is the best and most successful mode of treating such characters.

Again, speaking of over 100 of the same class at Parkhurst Prison, Dr. Roome states that "his expectations have been fully realised. The improvement in their mental condition, as well as in their general demeanour since reception into this prison is patent to all, and proves that the firm but mild discipline exercised over them is attended by the most beneficial results."

In the Report for the Pentonville Prison Dr. Clarke believes that the moral influence of solitary confinement is, "if not hurtful to the mind, at least negative for good, and is convinced that a reduction of the period spent in solitary confinement would be the means of arresting its debilitating effect upon men who, on their removal, are required to proceed at once to full and often hard labour."

There were two suicides during the year, both men. One occurred at Pentonville, and Dr. Clarke says "there was not any reason to suspect the prisoner of an intention to destroy himself, nor had he betrayed any sign of a disordered intellect. The unconsumed meal, supplied to him two hours before his act of self-murder, the barricaded door, lest the help he did not want might reach him, the extinguished flame of gas, and the carefully adjusted noose, all implied deliberation and premeditation." The other case was at Chatham, and the prisoner was found suspended behind the door of the cell a few mornings after he arrived there.

Aggravated prison offences appear to have resulted in corporal punishment in 95 cases among the men, or in about 1 per cent.

No general statement is made with regard to insane convicts in the Report for Scotland for 1870, but Mr. Bruce Thomson gives interesting memoranda regarding cases occurring in the General Prison at Perth.

The Managers of the Scotch Prisons in their Report call attention to the different laws that exist as to prisoners in the lunatic department in Scotland compared with England. In Scotland it appears that when a convict becomes insane during a term of imprisonment he cannot be sent to a district asylum on the expiration of his sentence.



With regard to the other class, viz., those who are detained during Her Majesty's pleasure, the Managers make the following remarks :—

In a considerable proportion of the instances where persons indicted for crimes are placed at Her Majesty's disposal on the ground of lunacy, there is a complete recovery from the disease. But it is liable to recur. In the majority of cases it follows on excessive drinking. Kept absolutely sober, with vigilant medical supervision, suitable diet, and regular habits, the person who has committed murder or some other violence, is restored to reason. But if he is at large he will probably take to drinking again with all its dangerous results. And even in the case where a relapse is not thus fostered, there is a risk of its coming. It has been put to one high medical authority after another, whether there might be conditions under which it can be held that a person who, in a fit of insanity, has killed a fellow creature, is no more liable to be in a condition to repeat the act than any one who has never been under the influence of insanity. The answer invariably was, that just of one class of cases could this be predicated—women who had committed violence under the influence of puerperal mania and had lived beyond the age of child-bearing. Under the existing law, all those at Her Majesty's disposal who have recovered must either be detained in the general prison or be absolutely at large. No one is entitled to exercise control over them elsewhere. When they fall on the parish, as many of them would, they cannot be put into an asylum or otherwise dealt with like lunatics, because they are not medically certified to be insane. Thus a person who has committed murder under an attack of acute insanity, and is liable to the recurrence of such an attack, with its consequences, would merely be under the imperfect supervision held over the ordinary helpless and harmless inmates of a poorhouse.

With these considerations on the one side, there are, on the other, reasons why it is, in some instances, desirable that persons who have recovered their reason should not be detained in the department for criminal lunatics if they can be safely disposed of otherwise. In the first place, it is not favourable to the preservation of their mental health that those who have recovered their reason should be placed in continual association with absolute lunatics. The class who have recovered become troublesome with discontent, and often dangerous by plotting. Those who are insane do not combine, because no one will trust another, but the men who have recovered for a time their reason do combine together, and are sometimes an object of much anxiety to their custodiers.

They refer to some proposed legislation on this subject, containing a clause whereby such persons might be entrusted

to the charge of relations or others prepared to look after them, with certain precautionary conditions.

The reports for the Irish Convict Prisons for 1870 do not contain much information as to the mental state of the prisoners. The Directors seem to find considerable trouble in dealing with the weak-minded class, about whom they remark—"They frequently annoy the well-conducted prisoners; their labour is almost valueless. A short, sharp punishment in a county gaol would probably prove more deterrent to this class of prisoners than the lengthened term in a convict prison." Of three females sent to the criminal asylum from Mountjoy, "two were imbecile on reception and the third had been twice before an inmate of the asylum."

Appended to the Blue Book for English Prisons is the report for Western Australia. The Surgeon Superintendent, speaking of the insane convicts in the asylum at Fremantle, says—"No assaults of any consequence have been committed by the patients during the year either on their attendants or on each other; occasionally disputes and angry words arise and pass, but are soon and easily suppressed. Except in one instance, Patrick Shannon, on whom it was absolutely necessary to put some hand muffers at the commencement of the year, restraint has been totally unknown. There is no padded cell in this asylum, and, though the large proportion of its inmates are convict lunatics, I have never had any reason to wish for one."

It is unnecessary for us here to make any comment on these various extracts and opinions; but there is no doubt a great field for psychological study in the varied questions that suggest themselves with regard to convicts, their crimes, their position in the social scale, and the effects which imprisonment has upon them.

D. N.

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*Asylum Reports for 1871.*

We have made some extracts from the different asylum reports received this year, and are glad to notice the increased and increasing interest of the medical details. Many of the superintendents have contributed some valuable information,

and it is evident that the asylum is regarded more as a field of practice, and less as a mere house of detention. That this is making itself felt is evident from the greater notice the reports attract in the medical newspapers.

It would be impossible to notice each report, but we have selected some of the more striking incidents in those that have come before us.

**BERKS.**—The first report of this, a new asylum, gives a detailed account of the structural and other arrangements, together with a history of the trials attending the opening. It appears that no sooner had patients been admitted than the ceilings were found to be so bad that they were all condemned, with the exception of those under the roofs, and had to be renewed, a work which lasted more than six months. However, the construction of the asylum seems to be satisfactory, and it is in good working order now. Dr. Gilland gives the following details as to the building :—

The Asylum Estate, located in the parish of Cholsey, consists of nearly 80 acres of land, extending from the Wallingford Road to the Thames, and bounded on the west by Stoke-ferry Road. The ground slopes gradually towards the river, which is about half-a-mile from the asylum. The soil, generally well adapted for agricultural purposes, is an alluvial deposit of loamy gravel, with a substratum of sharp sand, gravel and flints, resting on firestone, which, at a depth of 14 feet from the surface, yields an abundant supply of good water. The asylum buildings occupy an elevated site near the northern boundary of the estate, contiguous to the Wallingford Road; the distance from the road to the front entrance being 400 feet. . . . .

The asylum is built of red brickwork, slightly relieved with stone coloured brick dressings, the style of architecture being a modification of Early English. It is planned to accommodate 285 patients, the relative numbers in regard to sex being 134 males and 151 females. Sleeping accommodation has been provided for 222 in dormitories of moderate size, none of which contain more than 15 beds; and for 63 in single rooms; the latter being in the ratio of 1 to every 4·5 patients. This proportion, which is relatively greater than that of many asylums, is none too large, as it tends to facilitate the working of the asylum, and materially contributes to promote the tranquillity of the associated dormitories.

The windows throughout the asylum are, in general, two-light windows, divided by central stone mullions. The sashes, which are all of wood, are double-hung, in order to allow them to open 5 inches at top and bottom; the lower sash being prevented by a lock from

opening to a greater extent. The panes are of moderate size, measuring on an average 11 inches by 5in. By means of a very simple and ingenious contrivance, an upward current of fresh air can be admitted between the middle extremities of the two sashes, without any draught being experienced by a person sitting close to the window; the latter to a casual observer seeming apparently closed. The pleasing domestic appearance of these windows, the facilities they afford for ventilation, and, when shut, the immunity they secure from cold draughts, render them extremely well adapted for asylum purposes.

In both the male and female division, two single rooms, one on the ground and one on the first floor, have been fitted up as padded rooms, the pads of one room being covered with leather, and those of the other three with strong India-rubber cloth. A thick layer of Linoleum has also been laid on the floor of the two upper rooms.

The number of patients at the end of 1871 was 116 males and 132 females; total, 248.

**THREE COUNTIES.**—At this asylum a considerable enlargement has been made, and there is now room for 680 patients. Two splendid dining-halls have been erected, in which all the meals are taken. Mrs. Denne, who has been matron for many years, has retired from her office, on a superannuation of £50 a-year, and the Committee have recorded in their report “how much indebted the asylum was to Mrs. Denne for her long and most valuable services.”

**CAMBRIDGESHIRE.**—The long feud between the Commissioners and the Committee of this asylum seems to have resulted in an attempt to enlarge the asylum, and add some improvements, but, after many vicissitudes, these plans have only reached the stage of good intentions, and do not appear likely to get much further. No assistant medical officer has yet been appointed, and this asylum enjoys the distinction of being the only county one without a second medical man. So obtuse are the Visitors on this point that they only agreed to have a second if they could earn money enough to pay him from out-patients. There are 260-70 patients.

**CHESTER**—The old asylum has been a good deal improved, and the patients are maintained at 7s. 7d. a-week.

**CARLISLE.**—Dr. Clouston reports the health of his patients as good; but speaks of a “few mild cases of diarrhoea in the spring, no doubt caused by effluvia from the sewage, which at that time of year finds the ground saturated with water, and no vegetation going on to utilize and deodorize it, even though

the sewage is deodorized by carbolic acid, the ground is well drained, and the stream of sewage is run on fresh ground every day."

These evils are by no means common in spite of the great use of sewage irrigation now.

The following remarks relate to two cases admitted in the year :—

One was that of a man who was so excited by the Murphy riots in Whitehaven that he was brought here quite mad ; in his case, however, I should not like to say too confidently that the whisky he had been drinking did not share with his excessive religious zeal some portion of the blame of causing his insanity. The other man was one of those who had charge of a light-ship, with long periods of time on duty, and very short intervals of relaxation and change ashore ; he was on indifferent terms with his shipmates, and did not associate with them, but devoted himself largely to reading. The consequence of this worse than solitary confinement was, that after being there for some years he became quite insane, and would probably have drowned himself if assistance had not arrived opportunely. After he recovered he told me that his insanity was undoubtedly caused by the extreme monotony of his life, and that he was the third man in that same ship who had become insane, one of them having committed suicide.

At CARMARTHEN we read that—

One young man, aged 20, habitually went naked before admission here. He was generally locked up while his relatives were absent during the day, but at times made his appearance in a state of nudity in the village. He slept with his mother and a sister aged twelve years. When visited by the relieving officer, for the purpose of removal, he was found alone, naked, and no clothes suited for him could be found in the house. He was removed with only a petticoat pinned round him. This was a case of probable congenital deficiency, and he had been for years subject to epilepsy, yet he was not registered as an idiot or lunatic. Until such cases are searched out, and their number recorded, all statistics bearing on the alleged increase of lunacy in this district can only be fallacious.

PRESTWICH.—We are glad to see such a graceful acknowledgment of Mr. Holland's services on the part of the Visitors as is contained in the following extract from their report :—

The Committee avail themselves of the present opportunity of recording their testimony to the valuable services rendered to this Institution by Mr. Holland, who has held the situation of Superintendent from its foundation—a period of 22 years—and to the many

eminent qualities he possesses—to his administrative ability, as shown in the conduct and management of an Asylum containing upwards of a thousand patients, with a full staff of officers and attendants—to his successful medical treatment of the insane, as proved by the high standard to which this institution has attained in the proportionate number of cures effected—and to his singular skill in architectural and general arrangements, as exhibited in the alterations and additions made, on his plans and suggestions, at the Prestwich Asylum, which, during his Superintendence, has been enlarged to nearly three times its original capacity and dimensions. Whilst regretting the loss which this institution will thus sustain, the Committee fully recognise the propriety and peculiar fitness of Mr. Holland's appointment as Superintendent of the New Asylum at Whittingham, which has been designed by him, and in the construction of which he has manifested a very deep interest.

At YORK a patient displayed great cunning in planning his escape, thus:—

A male patient made his escape, and was not retaken within the period allowed by the statute. The method of his escape was peculiar, and showed, not only remarkable ingenuity and design on his part, but the difficulty of adopting such precautions as to render escape impossible. The patient escaped on a Sunday evening through the window of a water closet, and by the following means. The window in question, the squares of which were too small to allow of egress, was blocked top and bottom, so as to open only  $5\frac{1}{2}$  inches clear, by solid wooden blocks screwed firmly to the frame. The screws were found to have been gradually extracted by means of the head of a nail picked up in the garden, and their places filled with soap, so that no external indication of their absence might be left. This operation had probably extended over a period of several weeks. When all the screws were gone, to remove the blocks and open the window was easy, and to jump a few feet to the ground not difficult. The patient wandered from town to town in the Midland Counties, levying contributions upon former friends, and was finally retaken and brought back to the Asylum, with fresh order and certificates, five weeks from the date of his escape.

SUSSEX.—Dr. Williams' report is one of unusual interest and ability, and contains some valuable observations on therapeutical experiments carried on among his patients. They are evidence of great industry and zeal in a good cause, and will repay perusal. Not the least interesting feature in this report is the essay of the Chaplain, Rev. T. E. Crallan, who has laboured assiduously at meteorological observations, and has compiled a chart showing the variations during four

years, and the influence of certain changes in the weather on the patients. The facts are well worth careful attention, but we must be content with referring to his conclusions. He says, alluding to epileptics :—

It seems to me tolerably clear that when a great fall or a great rise of the barometer, or a great rise or fall of solar radiation occurs—*i. e.*, a decided change from bright to dull weather, or the opposite, or when both the atmospheric pressure and the solar radiation are much disturbed either in the same or contrary directions—an accession of fits invariably occurs. I am led, therefore, to the inference that it is, after all, not the moon which directly affects the epileptic patients, but the change of weather; and that it is the coincidence which not unfrequently occurs, of a change of weather with a change of moon, which has led the popular mind into the notion of the moon affecting both the weather and the epileptics.

And concludes thus :—

I come, then, to the conclusion that, so far as my own observations go, any marked change of atmospheric pressure, solar radiation, or both, either in the same or contrary directions, is almost certain to be followed by increased number of fits among the epileptics or by a development of mania or melancholia. Sometimes all three forms of disease will be augmented at once, sometimes only one, and it is deserving of notice here that very often the maniacal and melancholic patients seem to be affected in opposite ways, the latter being well when the former are excited, and the converse.

Smallpox having been so prevalent, several of the asylums have been visited by it, such as the Surrey, Hanwell, Rainhill, and Northampton, and at Brookwood five deaths occurred; “the type of the disease not only being of the worst confluent form, but also, in several cases, of the hæmorrhagic kind.”

In most asylums re-vaccination was largely practised, and with undoubtedly great success in preventing the spread of the malady. As many as 800 persons were re-vaccinated at Brookwood.

#### *Medical Treatment.*

Dr. Yellowlees, of Glamorgan, remarks :—

There has been nothing unusual in the Medical or General *Treatment*, except perhaps that restraint has been used chiefly on the female side, and generally in the form of gloves embracing the whole hand. This is regarded technically as “Restraint,” and is registered as such

in the "Medical Journal," although it scarcely deserves such an opprobrious name.

I never hesitate to use Restraint when other means fail, if I think it for the patient's good. The cases requiring it are very rare, but it is as certainly right to use it when required as it is wrong to use it when unnecessary. To condemn Restraint under all circumstances merely because it has been or might yet be abused, is as unreasonable as to forbid all use of Stimulants, because they have been or may yet be used too freely.

Mr. Wickham, of Newcastle, writes, as follows, of his experience of the hydrate of chloral :—

The hydrate of chloral has been used with, on the whole, good results in many cases, but at the same time it is a drug of which it may be said in a very particular manner, that it must be employed with caution, and not so indiscriminately as some would lead one to suppose, for deleterious and sometimes even dangerous effects have been observed after its use. It has been said that it is to the art of medicine what chloroform is to that of surgery ; but in our present faulty knowledge of its actions, I am not inclined to subscribe to this doctrine further than as regards the possible danger attending its use. A male patient suffering from great excitement was treated in the following manner :—On the 26th August he got 35 grains at bed-time, and on the 28th, 29th, and 30th, 30 grains each night. He did not get any more until the 5th September, when the treatment was changed to 10 grains three times a day. This had no effect, and the dose was increased on the 9th September to 15 grains three times a day. On the morning of the 11th, he suddenly became so blind as to be unable to distinguish light from darkness, and this state only passed off when the medicine was stopped. The pupils were very greatly dilated, but there were no symptoms of prostration, or of any other constitutional disturbance observed. He took his food well, and his mental condition remained much the same as before. It is not easy to ascribe this unlooked for phenomenon to anything but the effects of the hydrate of chloral, while it also shows what an exceedingly powerful drug it is.

In the case of a female patient who had been treated for a short time with doses gradually increased to two scruples at bed-time, with no apparent effect, the treatment was changed to 20 grain doses three times a day. She was, like the former case, suffering from great excitement. This dose was continued for seven days, when she became the subject of the most severe urticaria I ever saw, attended with feverish symptoms of so violent a nature as to cause considerable anxiety. I could not discover any disease of the heart in either case, but in that of the woman I found that she had been suffering from her periodical indisposition during the last two days of the exhibition of the drug. These and other cases have made me unwilling to use it



much of late. A careful investigation of its actions and properties is much required, as there is no doubt that it is a valuable addition to the pharmacopœia, and applicable to certain cases in which Opium is hurtful and other drugs are more or less useless.

*The Number of the Insane.*

In the BROOKWOOD Report Dr. Brushfield devotes considerable attention to the question of the number of lunatics in the county of Surrey, and comments on the increase of lunatics, though he shows that the proportion is not above the average of the rest of the kingdom. As in other suburban districts, the Brookwood Asylum has been influenced by the new Metropolitan Institutions at Caterham and Leavesden, and, speaking of this, Dr. Brushfield says:—

There has been a considerable alteration in the distribution of the County cases during the last two years, owing to the opening of the Metropolitan Asylum at Caterham, which, although a workhouse within the meaning of the Act of Parliament, has not only received the cases which formerly occupied the workhouse wards, but has also had transferred to it a large number of cases from the ordinary asylums. This alteration is apparent in the following table, where the amount of diminution in the number of asylum inmates in 1872 nearly represents the number who were confined in Licensed Houses, and out-County Asylums in 1870.

|                   | In County<br>& other<br>Asylums. | In<br>Caterham<br>Asylum. | In<br>Work-<br>houses. | With<br>Friends. | Total. |
|-------------------|----------------------------------|---------------------------|------------------------|------------------|--------|
| Jan. 1, 1870..... | 1919                             | ...                       | 413                    | 131              | 2463   |
| „ 1871.....       | 1979                             | 137                       | 309                    | 133              | 2558   |
| „ 1872.....       | 1655                             | 789                       | 164                    | 145              | 2753   |

In transferring the quiet and harmless class from asylums to an institution like the one at Caterham, the former are, no doubt, relieved for a time of a number of incurable cases; but it must be borne in mind that the measure is a very doubtful one, both of economy and of prudence.

At the HANTS Asylum Dr. Manley, in his interesting report, also discusses the number of insane in his county, and remarks:—

The ratio of pauper lunatics to the population generally, in England and Wales, is 2.40 per thousand of the population. In Hampshire, excluding the two large boroughs of Portsmouth and Southampton, it is 2.42, whilst in the neighbouring county of Wilts it is 3.29, of Berks 3.15, of Dorset 2.58, of Sussex 2.51, of Oxford 3.11, and of Somerset 2.63 per thousand.

Although Hampshire in this list contrasts favourably with these

counties, still the number of pauper lunatics in this county has increased in a proportion far exceeding that which it bore to the population ten years ago; for, whereas the increase corrected for the population would be 73, the absolute increase is 242.

In 1861, 381 insane paupers, including those belonging to the borough of Andover and the city of Winchester, or 57 per cent. of the whole number were in the asylum; 162, or 24 per cent., were in workhouses; and 129, or 19 per cent. were domiciled with their friends.

In 1871, 571 patients, on a similar calculation, or 62 per cent. were in the asylum; 209, or 23 per cent., were in workhouses; and 134, or 15 per cent., were domiciled with their friends.

He accounts for the increase chiefly by the altered circumstances of life leading to greater care and anxiety, excitement, difficulties in living, and intemperance, though of the latter cause he adds—"But my impression is, that a very small per centage of the admissions can be absolutely attributed to drink, but rather that the insanity has led to the intemperance, the patient having resorted to it after the insanity had set in."

Dr. Yellowlees makes the following remarks on the numbers in Welsh Asylums:—

The recent Census Returns now make it possible to compare Glamorganshire with other counties as regards the number of pauper lunatics. The general results, as derived from the latest Parliamentary Report of the Lunacy Commissioners, are briefly these:—In England and Wales the ratio of paupers to the general population is 47.8 per 1000 as against 48.9 in Glamorgan, the proportion of lunatics among these paupers is 4.6 per cent. as against 3.4 in Glamorgan; and the ratio of pauper lunatics to the general population is 2.2 per 1000 as against 1.6 in Glamorgan. Only six counties in England and Wales have a fractionally smaller ratio of pauper lunatics than Glamorganshire, while the neighbouring counties have a much higher ratio. Carmarthen and Pembroke have each 3.0 per 1000, Monmouth 2.4 per 1000, Brecon 2.5 per 1000, and Hereford 3.4 per 1000.

The present position of Glamorganshire is, therefore, in this respect extremely favourable; this is doubtless due to the very rapid increase of population, and to the large influx of healthy labourers from other counties; it would be vain to hope that this favourable position can be permanently maintained.

#### *Pathology, &c.*

Among the various reports we are glad to notice several pathological contributions. In the WORCESTER Report are these notes as to the *post-mortem* appearances.

H. H., male, æt. 32. Five ounces of clear serous fluid escaped from

the arachnoid sac. Convolutions flattened with here and there deep depressions on their surface. On the left side of the brain, in the substance of the upper part of the middle lobe, on a level with the roof of the lateral ventricle, an old cavity of considerable size was cut through. The walls were tough and fibrous, and the interior shewed a rough broken surface of a yellowish colour. The brain substance in its vicinity was remarkably full of vessels. There was a similar cavity of much smaller size immediately behind this one, another one in the substance of the right anterior lobe, and on cutting the brain from above downwards, two others of small size were discovered, one on each side of the *raphè* of the corpus callosum.

T. R., male, æt. 48. Dura mater adherent to calvarium. Pia mater adherent to cortical substance. Ventricles distended with fluid. Brain substance very soft and pulpy. In the right lateral ventricle, floating free in the serum contained therein, was a hydatid cyst the size of a hazel nut. It contained one or two smaller ones in its interior, and, under the microscope, hooklets of the echinococci were discovered in the contents of the hydatid.

REMARKS.—Was only in the asylum a fortnight. Said to have been insane for four months before admission. When admitted he was in a maniacal condition, very restless and incoherent, but in feeble and reduced condition. Left pupil extremely dilated. Symptoms of paralysis also presented themselves in his walk and speech. In a few days he got much worse, became extremely prostrated and semi-comatose, had constant muscular twitchings, and vomited everything he took, which continued until death.

A case of cancerous tumour of the brain in a man, æt. 38, with no similar disease in the thoracic or abdominal organs.

G. L., male, æt. 66. Several ounces of fluid in the arachnoid sac. Membranes opaque and at some places adherent. Occupying the position of the left frontal lobe, and resting on the orbital plate, was a firm, hard, and well-circumscribed tumour as large as a pigeon's egg, and cancerous in its nature. Just behind it in the broken up brain substance, was a recent hemorrhagic clot as large as a hazel nut. Two older clots with surrounding softening were seen, one in each ascending parietal convolution. The whole brain substance was soft and œdematous. Ventricles contained two ounces of fluid. The liver was extensively affected with hydatid disease. Almost the whole of the left lobe was converted into a large cyst, which contained numerous smaller ones in its interior. On making sections through the gland three cavities were found in its substance, filled by a greenish yellow substance of the consistence of butter. The largest of these was the size of an orange, the others were about the size of pigeons' eggs.

REMARKS.—He was admitted from a union workhouse, where he had been under treatment for a year, in a demented, restless, and feeble condition. No symptoms of hepatic disease presented themselves, nor

was there well-marked paralysis on admission. He lived for two months, during which he had several hemiplegic attacks, his speech became almost unintelligible, and for several days before death he was in a semi-comatose state.

At NEWCASTLE, Mr. Wickham relates

The case of a woman in which the right kidney was entirely absent, no trace of the most rudimentary body being observable. The left one was of the normal shape, and weighed about  $7\frac{1}{4}$  oz. I sent a note of the circumstance to Professor Turner, of Edinburgh, who replied that he had only seen one such case before, and in it the uterus was the subject of great malformation. Curiously enough in my own case the woman had not menstruated before the age of 26, when she was operated on by a medical gentleman in Newcastle. The operation had only a temporary effect, and she died at the age of 27. The uterus was of normal shape, but the ovaries were considerably atrophied.

At WANDSWORTH, a man was scalded in a bath, by the carelessness of an attendant, and died in consequence, and another patient died from "Inflammation of small bowel, caused by swallowing an apple," no other particulars being stated.

Two instances of dangerous homicidal attacks are recorded, one at the Sussex Asylum, where—

A chronic lunatic, with auditory delusions, who has, almost since the opening of the Asylum, worked in the cow-house, and was considered quite harmless, made a homicidal attack on Boniface, the cowman, with a broom handle. The attack was so sudden and unexpected that Boniface had no time to defend himself. He was stunned by the first blow, and would, without doubt, have been killed had not timely help arrived. As it was he had seven large and severe scalp wounds, and was laid up for a month. It need scarcely be added that R. W. will be carefully confined for the future.

Another at the BIRMINGHAM, where—

The patient J. B., while in a state of coma, was struck several times upon the face and head with a chair, by a fellow patient, C. P. He had been comatose, and at times convulsed, for several hours at the time he was struck, and continued so until his death, which took place nineteen hours afterwards. The certified cause of death was "convulsions and coma, the consequence of meningitis;" but, at the inquest, the Jury, thinking that the man's death was hastened by the blows, brought in a verdict to that effect. Whereupon C. P. was committed to Warwick prison for trial, from whence he was soon afterwards transferred to the State Asylum at Broadmoor, where he still is.

At the SUSSEX a case of Addison's disease is reported; also

one of arachnoid cyst, as well as the following curious state of stomach :—

II. *Dilatation of Stomach, &c.*—M. B., female, age 45. Forty-seven hours after death. Slight signs of decomposition present. Rigor mortis not well marked. The membranes of the brain and the sinuses were congested, but the brain itself *appeared* normal. The left pleura was adherent to the walls of the chest, the lung emphysematous, and congested at base. Heart was small; its muscular fibres pale, and the mitral valves œdematous. On opening the abdomen, the stomach was seen to reach to the pubes, and almost entirely covered the intestines. The muscular coat was very much atrophied, and in some places could scarcely be detected. No thickening of the pylorus. The viscus contained four pints of a dark grumous fluid, somewhat resembling semi-digested blood. Intestines were congested throughout. The structure of the liver was pale; its weight 30oz. Pelvis of the right kidney contained above a half drachm of pus. Other organs healthy.

*Remarks.*—Until a few weeks previous to death patient showed no positive signs of disease. She was always a voracious eater, and it was the partial loss of appetite which first drew attention to her condition. Five days before death vomiting and diarrhœa set in. The latter readily yielded to ordinary treatment, while the former was not relieved by anything. She became gradually worse, and a few hours previous to death the vomited matters were similar to those found in the stomach at the autopsy.

When admitted patient was in a state of acute mania.

#### *Accidents.*

The following are some of the most remarkable accidents recorded among patients, omitting ordinary fractures which must occur in a large number of persons, whether in or out of an Asylum.

We notice several cases of broken ribs, and the observations made seem to corroborate the opinion that the condition of the bones is peculiar, at all events, in some classes of the insane. We are disposed to think that it is chiefly among general paralytics that these fractures occur, as illustrated by the cases appended.

At HANWELL a man, æt. 55, “affected with mania and general paralysis, died of pleurisy, the result of fractured ribs.” Another man, æt. 45, affected with the same disease, had a fracture of the right ramus of the lower jaw, two fractured ribs, and laceration of the right kidney; “how caused there is no evidence to show.”

## At the HANTS Asylum—

A male patient, a general paralytic, fell against a table and fractured a rib. This was the only case in which death followed, and an inquest was held, the jury giving a verdict of "death from general paralysis, accelerated by a fractured rib." In this case I requested the coroner to call in a medical man unconnected with the Asylum to make the post mortem examination, which he did, and the evidence he gave showed that the bone was very brittle and the character of its structure changed, so that it fractured very easily. This was afterwards confirmed by an able microscopist, who examined a fragment of the bone under the microscope.

## At the IPSWICH Asylum—

An Inquest was found necessary in one case of death—J. W., a patient admitted the 9th December, 1870, suffering from mania, with delusions regarding religious matters; with no suicidal or dangerous tendencies, but with a strong hereditary taint. All precautions possible were taken with him, although he was declared to be a harmless patient, he being visited by the night watch every hour or so; but on the 11th of December I was called to him at 6.45 a.m. by the day attendant, and found him lying in his bed, his face covered with blood, caused by his having torn his left eye-ball from its socket and severely bitten his tongue all over its anterior surface. He remained in an extremely violent and excited state for some hours, still trying to destroy the other eye. Afterwards he became exhausted, and lingered until the 26th of the same month, when he died. A full investigation was made by the Coroner and his Jury, who came to the unanimous decision that the deceased died from maniacal exhaustion, greatly accelerated by self-inflicted injuries, and that the deceased had received every care and attention during his residence in the Asylum, and they imputed blame to no one.

The only remark I should wish to make upon this case is that I never considered it one of suicide, but simply one of self-mutilation, no doubt being effected for some strong religious purpose, he having the fixed idea in his own mind that the loss of an eye or his tongue would atone for his fancied sins.

The accidents during the same period have been, for the most part, of an unimportant character, with the exception of one case of simple fracture of both bones of the leg, one case of intracapsular fracture of the neck of the humerus, and one case of fracture of the neck of thigh bone in an old woman, aged 84. These cases were all purely accidental, and made good recoveries. One patient bit off the first joint of her little finger whilst in a state of epileptic delirium, and a male patient deliberately broke the glass in a window of the dormitory at the top of the building, crawled through, and jumped a distance of 30 feet on the frozen ground. I found him a few minutes after the accident, sitting quietly on the path, perfectly sensible and *unhurt*.

He told me his reason for doing it was he heard voices outside calling him.

At WILTS a female idiot, æt. 53, "seemed to have turned over on her arm in her sleep," and fractured her humerus in the act. She had suffered from rheumatic gout, and "it is probable that the bones are atrophied, and consequently abnormally fragile."

At GLAMORGAN, "In one instance death was caused by rupture of the bladder, but how the accident occurred was not discovered. In a second case there was rupture of the bowel from a kick by another patient."

At the BROOKWOOD Asylum (Surrey), a female, "whilst in the airing court, was bitten in the arm by an adder, which she had picked up, and declared had spoken to her; in this instance there was extreme prostration for several days, but ultimately a speedy recovery ensued. A second case of adder bite happened to a male patient whilst reaping oats, but in his case the symptoms were slight."

At WORCESTER Dr. Sherlock narrates two cases of broken ribs, on which inquests were held, as follows:—

Both patients, men, were suffering from advanced general paralysis, and when these injuries were discovered, were, and had been for some time previously, in a prostrate, hopeless, and very exhausted state. In both cases the bones were found to be in a very diseased and brittle condition, and would have given way under a degree of force perfectly inadequate to produce such a result in a healthy subject. A rib removed from its connections was easily cracked across by the force used by the finger and thumb of the operator's hand. In one of these instances the fractures were ascertained probably on the morning of the day of their occurrence, and in the other case it appeared from the examination after death, that the ribs found broken were of very old standing, had consolidated and become solidified, and were in that state when the man was sent here for care, but that in the course of the exhausting disease from which he suffered, and which was accompanied with extreme emaciation and other signs of disintegration and degeneration, several of the united fractures had again broken loose and manifested themselves upon the examination of the surgical explorer. We know that this result happens in the case of other bodily diseased conditions, and in some earlier reports your attention was called to a similar case, where it was conclusively proved that a man had sustained similar injuries long before he was sent to your Asylum; and, as in the present case, some of the fractures became disunited, and obviously only a short time before his decease. In neither case

this year was any inflammatory condition excited in the lungs or pleuræ, and the jury found that death had resulted from the organic disease from which they were suffering.

At the YORK Asylum, "an old, feeble man slipped down in the gallery, and fractured his leg just above the knee; having previously sustained a fracture of the thigh in the same manner. It was purely accidental, and was evidently dependent upon an unusually brittle condition of the bones. The patient progressed favourably for some time, and then sank from exhaustion and shock."

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### PART III.—PSYCHOLOGICAL RETROSPECT.

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#### 1. *French Retrospect.*

By T. W. McDOWALL, M.D., Assistant Physician, Inverness District Asylum.

#### *Smallpox and Mental Diseases.*

As this short paper by Dr. Chatelain treats of a subject which has always excited much interest in this country, viz., the effect of acute diseases on the mental condition of lunatics, we reproduce it as it appears in the "Annales Médico-Psychologiques" for March, 1872.

It has long since been remarked that ordinary diseases are in general rare among lunatics; those of them who do not perish from the affection of the nervous centres during the acute stage of the disease, but become peaceful demented, generally enjoy excellent bodily health, and in asylums often attain an advanced age; moreover, Esquirol has already observed that the mortality among lunatics is especially high during the first two years of the disease. Is this immunity from bodily diseases in general enjoyed by lunatics due to a special tendency of innervation, or simply to the regularity of living and the *régime* of asylums, to the absence of so many causes of disease which we meet at every step in ordinary life? This is a problem which it is impossible to solve in the actual state of science, for many of the data necessary for such an inquiry are still wanting. However that may be, the question of the influence of intercurrent diseases upon the progress of mental disease is certainly one of the most interesting to be met with in practice, and it is on this account that the following observations appear worthy of record.



In the month of January, 1871, an epidemic of smallpox broke out suddenly at Préfargier in the female department. The first patient affected was an old boarder aged 57, who, excepting a walk some days before in the company of other patients, had had no communication with outside, or with persons suspected to be able to convey contagion. There were, indeed, at this time cases of variola in a locality two leagues from Préfargier, but, so far as could be ascertained, no one belonging to the institution had been in that neighbourhood for a considerable time. Five days after the appearance of this first case, another patient was affected, then a kitchen-maid, then a third patient, and in a short time we had, entirely in the female department, thirteen well-marked cases. The amusement-hall, which had been transformed into an hospital to receive the wounded and sick of Bourbaki's army, was emptied of the soldiers which it still contained, and appropriated to the use of the smallpox patients, of whom the following is a detailed account :—

1. C. G., unmarried, æt. 57, in the asylum since 1850. Moral and affective insanity, with attacks of excitement. Intellectual enfeeblement already well-marked. Long-standing lupus of the face and hands. Smallpox of medium violence; no influence upon the mental condition.

2. A. H., æt. 55, unmarried; in the asylum since 1849. Placid dementia; employed at needlework. Attack of smallpox slight; no influence on mental symptoms.

3. H. J., æt. 47, married; in the asylum since 1855. Moral and affective insanity; the intellectual faculties properly so called but little affected; assisted the nurses in their work. Smallpox very severe; œdema of the extremities, considerable difficulty in deglutition; no influence upon the mental state, except that the patient, usually violent and difficult to manage, was quite gentle and docile during her illness.

4. F. R., æt. 57, widow; in the asylum since 1856. Peaceful dementia; complete incoherence in ideas and speech, but still associated with patients of the first class; disposition always merry and happy. The smallpox eruption very severe, but the general symptoms relatively slight. No change in the mental condition; the patient still tried to laugh even with the eruption on the face.

5. M. M., æt. 69, unmarried, under treatment in Préfargier since 1860. Lypemania, delusions as to persecution; general intellectual enfeeblement; disposition suspicious, unmanageable, violent. Smallpox mild; no change in the mental condition, if we except the fact that the patient's humour became much worse than formerly, so that she would not allow anyone to attend on her; when she saw the doctor coming near her bed, she told him to be off.

6. R. L., æt. 36, married, at Préfargier since 1868. Affective insanity with hallucinations of hearing; of a solitary disposition,

obstinate as iron, always absorbed in herself, and absolutely indifferent to everything about her; always opposes everything that is asked of her; constantly refuses to explain to the doctor what she sees and feels. Attack of small pox light; no influence upon the psychical state, if we except some days during convalescence, when the patient was more open and communicative; she exhibited more confidence, and even asked why she always heard "these voices." Unfortunately this good disposition did not last; ere long the patient relapsed into her old state.

7. E. H., æt. 42, widow, in the institution since 1868, but insane for a long time. General intellectual enfeeblement, with periodic attacks of excitement. Eruption pretty copious, but without any influence on the mental state.

8. D. M., æt. 33, unmarried, in the asylum since 1869. Primary dementia; advanced intellectual enfeeblement. Variola slight. No influence upon the mental symptoms.

9. F. P., æt. 29, unmarried, resident at Préfargier for a year. Melancholia, with delusions as to persecution, affective disorders, periodic attacks of excitement; character impressionable, touchy and irritable. Variola mild; no influence upon the mental condition. The patient was, nevertheless, more agreeable and docile than usual, and appeared very grateful for the attentions bestowed upon her.

10. M. R., æt. 51, widow, resident at Préfargier for a year. General intellectual enfeeblement; patient gentle and tractable. Variola mild; no influence upon the mental condition.

11. L. L., æt. 60, widow, under treatment for a year. Lypemania (anxious), passed into a chronic condition. Variola very mild; no modification of the psychical symptoms; nevertheless, during some days, the patient was obviously less distressed.

12. M. J., æt. 23, unmarried, daughter of No. 3, under treatment for six months. Acute melancholia. Variola mild. No change in the mental condition. (The patient was discharged recovered in January, 1872.)

Lastly, 13, the kitchenmaid mentioned above, and whom we mention only for the sake of correctness in the numbers.

As to treatment, it was the same in all the cases—that is to say, there was absolutely none—it being simply expectant; for we do not reckon as such infusion of lime-tree and the effervescing solution of tartarate of soda given as drink.

Here, then, are twelve cases of variola occurring in lunatics, and exercising absolutely no influence upon their mental state; for we must not consider as such the trifling variations in temper which occurred in three or four patients during the course of the disease, for such changes are met with every day in practice among persons of sound mind. It is true that, on the one hand, in many cases the eruption was very slight, and that, on the other, all the lunatics af-

fects save one—No. 12, since recovered—were already, at the date of the invasion of the exanthematous affection, absolutely incurable, and the others in a state of chronicity almost completely excluding all hope of recovery. A year has now passed since the epidemic, and the mental condition of none of the eleven patients has undergone change, all are in *statu quo ante*. Let us add that this is the first time that any epidemic has appeared at Préfargier during the 24 years which it has been in existence; specially, we have never seen typhoid fever in the place (in a total of 1,900 patients), although the neighbouring villages have been repeatedly visited by very serious epidemics of this disease, and this completely supports the remark made by Thore in his examination of diseases occurring in lunatics,<sup>1</sup> that typhoid fever is very rare in this class of patients. "For ourselves," he says, "we can assert that we have not observed during a whole year passed in the Bicêtre a case of typhoid fever, and many of our colleagues who have preceded us in the same duties have made the same remark."<sup>2</sup>

In presence of results so negative as those we have just indicated, and which are in opposition to some rare cases related by various authors, in which the mental symptoms were completely modified by variola, we have looked up what related to this question in psychological literature, but we have found almost nothing. Thore in particular, in the conscientious examination which we have just mentioned, does not even mention small pox, as he only discusses, in his chapter on general diseases, typhoid fever, intermittent fever, articular rheumatism, and scurvy; he ably examines, in an article which appeared in 1856 (p. 162), the hallucinations in variola, but here the patients were not lunatics.

This physician observes that hallucinations in variola appear in about 5 per cent. of the cases, or nearly so; but let us remark in connection with this matter that no febrile delirium occurred in any of our twelve lunatics, and yet Dr. Berthier<sup>3</sup> affirms that fever, whatever its form, "exercises a manifest influence upon insanity," and still farther he says, "that the eruptive fevers are not without influence upon the progress of insanity: this winter there left the Madeleine, a woman who owed her recovery to a convenient (*bonne*) attack of small pox."

Nasse<sup>4</sup> mentions, also, but without giving any details, a case of general paralysis cured by the invasion of small pox, and Marcé<sup>5</sup> says that Chiarugi had seen variola beneficial in an attack of mania; finally Schlager<sup>6</sup> observed some cases in which the invasion of variola was followed by a complete cessation of psychical disorders of long stand-

<sup>1</sup> "Annales Med.-Psych.," 1846, i., 375. <sup>2</sup> Nevertheless Gaye saw in 1845 an epidemic of typhoid fever attack 62 patients (in 500) at the Asylum at Schleswig. <sup>3</sup> "Annales Médico-psychol.," 1861, p. 14. <sup>4</sup> "Irrenfreund," 1870, p. 113. <sup>5</sup> "Maladies mentales," p. 91. <sup>6</sup> "Wiener medizinische Zeitschrift," 1868, p. 151.

ing. In two of these cases the recovery was complete and permanent, in the others, which had already presented slight symptoms of paralysis, the improvement due to the eruptive fever was really but a remission which did not save the patients from perishing later from general paralysis.

In short, the intercurrent disease which appears to have most frequently a favourable influence upon the course of mental diseases is, according to the works of Berthier,<sup>7</sup> Nasse,<sup>8</sup> Girard,<sup>9</sup> typhoid fever, since, according to Nasse, Bach has seen ten cases of recovery in eleven; Schlager six in eleven; and Gaye,<sup>10</sup> in sixty-two recoveries from mental diseases, considered four as due to this affection.<sup>11</sup>

We therefore see that in what concerns the influence of variola upon mental disease, the problem is far from being solved, and we forbear to attempt the solution at present, for the number of our observations is much too limited for us to pretend to draw any positive conclusions therefrom; besides, we have already drawn attention to the fact that all our cases but one were already chronic, and consequently were much less likely to be modified by the febrile disease. Questions such as the present subject of this paper can never be completely solved until science has collected a large number of authentic observations, and it is simply on this account that we have wished that our cases should not be allowed to be forgotten.

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*On Moral Contagion.* By Dr. DESPINE.

In his short pamphlet of twenty-four pages, the writer treats of a matter observed by all who read the newspaper—we mean the fact that crimes, particularly those of a graver description, generally occur in epidemics. To prove this point, Dr. Despine, in the first division of his paper, records a large number of murders, suicides, robberies, &c.; on these it is not necessary to dwell, but we shall pass on to his second division—the law which regulates Moral Contagion. The following is what is said on this matter:—

Moral contagion being a natural phenomenon, is consequently one of the laws to which God has subjected all created things. We succeed in the discovery of this law by analysing moral facts and by studying the circumstances in which they occur, in the same manner as we succeed in discovering the laws which preside over the phenomena of the physical and organic worlds, by studying perseveringly the facts appertaining thereto as well as the conditions in which they are

<sup>7</sup> "Loc. cit." <sup>8</sup> "Allgem. Zeitschrift für Psychiatrie," 1864. <sup>9</sup> "Annales Méd.-psych.," 1846, ii., p. 83. <sup>10</sup> "Allgem. Zeitschrift für Psychiatrie," 1862, ix., p. 1963. <sup>11</sup> See also, on the connection between typhoid fever and mental diseases, the works of Wille "Allgem. Zeitsch. für Psychiat.," the vols. for 1865 and 1870, and of Nasse, the same journal, 1870.

produced. Now the conclusion to be drawn from the facts which we have related is forcibly this, which will represent the law which has directed the commission of these acts:—*Every manifestation of the instincts of the mind, of the sentiments and passions of every kind, excites similar sentiments and passions in individuals who are capable of feeling them in a certain intensity.* This law explains how a certain act infects some and not others. One could not better compare man's moral nature than to a sounding-board (*table d'harmonie*). The sounding of one note causes vibrations in the same note in all the boards which, being susceptible of emitting it, are influenced by the sound emitted. In the same way, the manifestation of a sentiment, of a passion, excites the same instinctive element in every individual susceptible, by his moral constitution, of feeling more or less acutely this same instinctive element.

If this law acts beneficially in affording us the means of putting into activity, of exciting and strengthening by good example the higher sentiments of man, it also becomes a source of evil in causing moral perversion by the influence of bad example, by the recounting of criminally immoral acts, which vivify, incite, strengthen the evil instincts, sentiments, passions of the man whose natural morale is already below par. It is necessary, therefore, to take this law into serious consideration in order that it may operate as much as possible for good, and remove as far as possible those circumstances which tend to make it the source of evil. And these latter circumstances occur too frequently in our day, by the relation of hideous crimes with which all the newspapers are filled, and particularly those which, by their low price, are intended to be read by the lower classes. If the recital of immoral, criminal acts is not dangerous for individuals of good parts, who from their mental constitution reprobate these acts with horror, who have only an aversion to what is bad, it is incontestable that, for those morally deformed, in whom the tendencies to evil are very powerful, easily excited, or already developed, either by their inherent activity, or by the corrupting influence of immoral surroundings, and in whom the moral sentiments which are antagonistic to the depraved tendencies are feeble or absent, it is incontestable, I say, and I have brought forward numerous facts in evidence thereof, that the publication of criminal acts is very dangerous to public morality and security, because it stimulates in these individuals the same depraved tendencies which had occasioned these crimes, and awakens those sentiments, those penchants, those passions; and the desire to commit similar acts then appears. Now, in such morally deformed individuals, who form the unfortunate dregs of society, a class which is constantly renewed, and of which the source is never exhausted, the recital of such acts becomes to them a cause of crime, and consequently a cause of danger to society. These individuals, abnormally constructed in the moral part of their nature, real moral idiots, though perhaps very intelligent, physically well developed, and

in good bodily condition ; these individuals whom the public describe as heartless, whom magistrates, before whom they appear on various charges, accuse of being destitute of human feelings ; these individuals in whom criminal tendencies are not commanded by the sentiment of moral duty, by moral perception, by religious feelings, and by other noble instincts of humanity ; these individuals who consider their immoral and hideous desires without abhorrence, and whom crime leaves unmoved and without remorse, who, in way of regret, feel only what injures the success of their undertakings at being captured and punished, these individuals, I say, will be tempted to commit crime if an evil desire excited by example becomes more powerful than their other better feelings, feelings which, whilst they predominated, restrained any criminal tendencies which these persons might have experienced. This miserable scum of humanity so dangerous to society, which produces exclusively all the greatest criminals, and to which we have directed too little attention up to the present time, ought to be explored to the bottom.

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*Experimental and Clinical Investigation of Alcoholism.* By Dr. MAGNAN.

This memoir is an abstract of lectures delivered by Dr. Magnan in 1869 and 1870. The subjects treated are—1. Alcohol. Its immediate action upon animals. Drunkenness.—2. Prolonged action of alcohol upon animals. Tremor. Delirium. (Never epileptic or epileptiform convulsions).—3. Immediate action of essence of absinthe upon animals. Absinthic vertigo and epilepsy. Symptoms after removal of the cerebral lobes ; symptoms after section of the spinal marrow.—4. Combined action of alcohol and essence of absinthe.—5. Acute alcoholism in man. Delirium tremens. Absinthic epilepsy. Epileptiform and apoplectiform attacks in chronic alcoholism. Prognosis. Treatment.

Without pretending to give a full or continuous account of Dr. Magnan's experiments or remarks, we shall simply give a paragraph here and there, as it appears more interesting or important.

Having considered what becomes of alcohol introduced into the system, there is next noticed

*The Cooling of the Body under the Action of Alcohol.*—MM Lallemand, Pevin and Duroy, mention the lowering of nearly a degree (centigrade) in the temperature of animals submitted to the action of alcohol. Edward Smith points out also a cooling of the body in the same circumstances ; but already, in 1848, MM. Duméril and Demarquay had pointed out a considerable decrease in temperature in animals submitted to the action of alcohol ; and in one of their experiments,

they were able to record, after three hours, a difference of  $9.6^{\circ}$  in a dog to which they had administered 125 grammes of alcohol. That is a decrease in temperature more marked than when ether or chloroform has been employed.

We, ourselves, in an experiment, have observed as much as  $3.5^{\circ}$  of decrease in animals plunged into drunkenness through alcohol, but not so affected as to be killed thereby.

Clinical observation also furnishes us with examples not less remarkable of cooling of the body under the influence of alcoholic drinks. I am indebted to the courtesy of M. Dugnet, senior Clinical Professor of the Faculty, for the account of a case of alcoholic drunkenness, in which the cooling was carried to its last limits. This was a woman, aged 38 years, of vigorous constitution, who, on 3rd March, 1869, at 10 o'clock in the morning, was brought to the Pitié, St. Charles ward, under the charge of M. Peter. This woman, after having the evening before drunk freely, wandered into the country, to about Ivry. She passed the night under a cold and heavy rain; was observed wandering about three o'clock in the morning by some country labourers. At six o'clock she was found lying in a ditch, cold and insensible.

On arrival at the hospital, coma was complete, coldness of the surface considerable, sensibility almost nil, the pupils contracted, the limbs exhibited slight, slow, convulsive movements, resembling contortions, or rather a kind of *repletion* in every direction; the force displayed in these movements was considerable; the pulse was full, regular, but slow. The temperature, carefully taken, at the moment of the visit, equalled  $26^{\circ}$  (cent.) in the axilla and vagina.

The patient placed in bed, was heated by means of warm bottles; she had also stimulating drinks. By degrees the convulsive phenomena ceased, the temperature of the body rose insensibly, and the patient recovered consciousness at 4.30 p.m. From this moment, all the functions became re-established rapidly, and the return to health was so complete that she left the hospital two days afterwards.

M. Hirne, clinical clerk, took the temperature at various intervals, after the first examination which had indicated  $26^{\circ}$ . The following is the table of its gradual rise:—

| Hours. | Temp. in<br>vagina. | Temp. in<br>axilla. |
|--------|---------------------|---------------------|
| 11.30  | 27.9                | 27.9                |
| 12.30  | 28.7                | 28.6                |
| 12.45  | 30.4                | 30.                 |
| 1.15   | 30.9                | 31.1                |
| 3.15   | 34.4                | 34.3                |
| 4.20   |                     | 36.3                |

*The Immediate Effects of a rather large dose of Alcohol.*—Under its influence, muscular action, at the end of some minutes, is no longer

obedient to the will, the animal stumbles, its paws, especially the hind ones, cross one another; one or other yields, and the body falls to that side; at first the animal can rise again, regain its equilibrium, but it is not long in losing this power also; then the two hind paws give way, escape from under the animal, which, still supported on its fore paws, yet attempts to advance, dragging its hind quarters after it in a laborious way.

By degrees the paralysis reaches the anterior half of the body; the animal exhibits a state of complete helplessness, and soon is plunged into a comatose sleep; if one raises it, it falls back in a mass, the limbs hanging, as well as the head, all power being destroyed; then alvine evacuations or vomiting occur, and the subject of the experiment, completely drunk, lies extended in the midst of its dejections.

The thermometer, placed in the rectum, indicates a considerable fall in the temperature; the expired air has a strong odour of alcohol. The urine in animals subjected in a transient manner to the action of alcohol does not contain albumen. These phenomena continue during a variable time, which may extend to three or four hours, or even longer; then the return to health occurs slowly, or else the animal, on awaking, resumes almost immediately its usual habits.

*Hallucinations caused in Animals by the Prolonged Action of Alcohol.*—But there is developed, at this moment, phenomena of peculiar interest, in addition to the daily symptoms produced by the immediate action of the poison. From the fifteenth day, indeed, until the end of the experiment, the following is what we observed:—One of the dogs remained almost unaffected by the prolonged action of alcohol; he became intoxicated every day, but, once the drunkenness had disappeared, he resumed his usual habits; the other four, on the contrary, exhibited a very remarkable nervous susceptibility. They became restless, listened, the slightest noise caused them to start, whenever the door opened they hastened to cower in the most obscure corner of the hall, leaving in their way a trail of urine; they paid no attention to petting; when one came near them, they bit; if one threatened to strike them, they uttered piercing cries. A short time afterwards, hallucinations occurred in two of them. As if pursued by an enemy, they barked violently, they ran wildly in every direction, the head turned back, and biting in the air. Whenever one entered, they crowded against the wall, moaning, crying, trembling in all their limbs. In the middle of the night they began sometimes to howl loudly, to utter doleful cries, and stopped only when one went in with a light.

These attacks of delirium were transient, and occurred regularly towards the end of the state of drunkenness. One of the dogs had hallucinations of a cheerful character, under the immediate influence of alcohol; he appeared affectionate whenever he began to stumble; later, on the contrary, he was indifferent, or rather he growled and bit.

These hallucinations, of frequent occurrence during two months of



the experiment, became afterwards rarer, probably on account of the ingestion of less alcohol.

*Hallucinations caused in Animals by the Administration of Large Doses of Absinthe.*—In the interval between the convulsive attacks, we have sometimes observed in the dog true hallucinations. The animal stands upon its paws, the hair shaggy, the aspect wild, the eyes injected and sparkling, looking steadily at one spot; he barks furiously, advances and retires as if before an enemy, then gradually becomes calm, growls, however, a few times, and ends by settling down. These phenomena, however distinctly indicated, only occur rarely; but one often sees, nevertheless, the animal expresses, by its attitude, fear more or less intense.

To show in a more striking manner the independence of action between the spinal marrow and the brain, in the production of these two orders of symptoms, epileptic attacks on the one hand, fear and hallucinations on the other, we shall submit to the action of absinthe these two pigeons and this guinea-pig, from which we have removed the cerebral lobes. The convulsions occur here of the same character as in animals who have not undergone any mutilation. The poison acts then upon the whole cerebro-spinal system; but the appearance of cerebral phenomena during the interval of the attacks indicates that its influence upon the different parts of the nervous centres may not be simultaneous; the brain, indeed, appears to become active when the other exhausted portions are in repose, and *vice versa*.

In certain circumstances, in the same animal, we may thus, by means of the essence of absinthe, stimulate separately the excited motor power of the medulla oblongata and of the spinal marrow. Permit me, in connection with this subject, to relate an experiment made along with my colleague and friend Dr. Jolyet of the Sorbonne.

In a young dog, 6 kilogrammes in weight, the spinal cord being cut below the medulla oblongata and life maintained by artificial respiration, we injected by the femoral vein 5 centigrammes of essence of absinthe. A minute after the injection we perceived an energetic contraction of the muscles of the face, trismus, followed immediately by forcible shutting of the jaws with froth escaping from the lips, spasms of the eyes, repeated winking of the eye-lids, and irregular contractions of the other muscles of the face. Then resolution and repose for twenty seconds, followed by a second attack more rapid than the first, and immediately afterwards a third, less strong. The trunk and the limbs, it must be remarked, remained motionless during these convulsive attacks in the head. We continued to inject into the same vein 12 centigrammes of essence of absinthe. The injection was scarcely completed when the four paws were seized with tetanic rigidity, flatus escaped from the anus, the trunk was bent forward, producing emprosthotonos, which existed four or five seconds, then it gently again became straight through slight jerks; sudden shocks affected the limbs, and were immediately followed by irregular clonic convulsions.

The convulsive attack which affected the trunk passed through all its stages without the face exhibiting any convulsive movements. After the whole body (trunk and head) remaining motionless for about twenty seconds, we saw some irregular convulsions occur separately in the muscles of the face and trunk, but without any definite character. Later still, the face alone exhibited some feeble contractions. At the end of twenty minutes artificial respiration was interrupted, and the animal died immediately. This case shows us then, separate and independent of each other, one attack through the medulla oblongata, another through the spinal cord.

*The Mental Symptoms in Delirium Tremens.*—The symptoms arrange themselves naturally into two groups: disorders of the intelligence and physical derangement. The intellectual phenomena consist chiefly in hallucinations, rarely of cheerful character, but almost always, on the contrary, as has long been observed, of a distressing nature; and, as M. Marcel has said, able to produce moral impressions, of which the simplest is anxiety, and the most severe an overwhelming fear.

These hallucinations, according to their degree of intensity, and also modified according to the disposition of the patient, occasion various symptoms, capable of completely changing the aspect of the patient. From that cause we have the maniacal, melaucholic, and “stupidité” forms of alcoholic insanity, and we might multiply the varieties, but without any real benefit, if we wished fully to express all the aspects under which the disease may present itself.

But how comes it that a single cause, a poison, gives rise to symptoms apparently so different? These hallucinations, as we have said, which have for a common character the awakening of distressing emotions, present, nevertheless, degrees in their modes of expression.

In the first degree the patient believes he hears abusive language, provocations; he sees thieves, armed persons, animals, or else he hears the voice of his parents, of his friends who call him, who warn him of a danger, who appeal for his help, &c. Stimulated by these incitements, the patient answers, injures, quarrels, runs, rushes off, becomes furious, &c., all which acts tend to develop in him a boisterous condition, a state of mania.

In other circumstances he believes himself to be in prison, before a court of justice; he is accused of various crimes; he believes that he has committed them; he believes that his wife is unfaithful to him, that he is deceived by his friends; he is present at the funeral of his parents, &c. Under the weight of these distressing impressions, he is dull, restless, suspicious; he laments, he becomes terrified, he attempts to escape, sometimes even he meditates homicide or suicide; he presents, in a word, the aspect of a melancholic. Finally, in the most intense form, he believes himself chained at the foot of the scaffold, he has before him the bleeding corpses of his children, everything is on fire, he is about to be swallowed up, &c. These appear-

ances have astounded, appalled him; he remains motionless, in a complete state of stupor.

Between these different conditions of mania, melancholia, stupidité, you must understand, gentlemen, that we might intercalate numerous intermediate ones; but it will be sufficient simply to indicate them at present; direct examination of the patient, much better than any description, will convey an accurate conception of these varied transformations.

*Development of the Mental Symptoms.*—We observe a successive gradation both in the intensity of the phenomena, and in their mode of evolution. We pass from simple functional disorder to illusion, from that to indistinct hallucination, which latter by degrees becomes distinct and evident hallucination, which is its ultimate development; then, in proportion as improvement occurs, the phenomena gradually disappear, pursuing the same order; that is to say, distinct hallucinations lead to confused hallucinations, these to illusions, which, in their turn, are followed by simple functional disorder.

Such is the usual evolution of hallucinations in alcoholism. Nevertheless, occasionally they may appear at once in their full development.

It is usually night when these symptoms first show themselves, and it is difficult to state precisely their mode of evolution on account of the somewhat confused recollection which the patients preserve of them; I can, at least, indicate to you with accuracy their manner of disappearance. Hallucinations which persist during both day and night begin by disappearing during the day, but continue to recur during the night with the same intensity; then, becoming less pronounced, they appear during the state between waking and sleeping; then they appear as nightmare, which continues a few moments after the patient awakes, then as simple dreams, and later still, the patient is pretty conscious of the nature of the sensorial disorders, which end by completely disappearing. Thus, at first, hallucinations are present during day and night, then only at night; later indistinct hallucinations and illusions occur between waking and sleeping, then during the disturbed waking from sleep, then at length nightmare, dreams, and return to health.

It will be easy for you, gentlemen, to follow this regular decrease in the majority of patients, however little you direct your attention to this point; in proportion as they improve, they themselves notice, with pleasure, the favourable changes which occur, and some can recall them in a very striking manner.

Let us see now how, in each of the senses, these phenomena are developed. In hearing, the first sensations are buzzing, hissing, ringing, the sounds of the bell which the patient believe to be his funeral knell; then occur confused noises, creakings, uproars, disturbances, discharges of musketry; still later there are heard cries of distress, voices, confused and distinct, of his friends and parents; then

abusive language, threats, distinct accusations, &c., and other very distinct hallucinations of hearing.

In regard to vision, the symptoms occur in the same manner; sight is disturbed, obscured, with dazzling; there appear sparks, flames of various colours, shadows, trembling figures, phantoms; then, in a confused manner, fires, precipices, battles. In some cases the patient sees at first a spotted spectre, blackish, with undefined outline; afterwards of a distinct form, with prolongations, which become paws, a head, and thus an animal, a rat, a cat, a lion, &c., are formed, or it may be policemen, gendarmes, assassins, &c. These are some of the very numerous disorders of sight which afflict the delirium tremens patient.

The perversions, illusions, and hallucinations of taste and smell are less numerous and varied, but, nevertheless, the patient is not free from smells and tastes of a disagreeable nature.

The general sensibility, with its different forms of anæsthesia and hyperæsthesia, furnish also its quota of painful sensations, and its disorders are frequently associated with those of the other senses. It is thus that some patients feel and see animals crawling between the flesh and the skin; or else they are surrounded with iron chains which clasp, squeeze, oppress them; they spend their time in unrolling these metallic rings, which incessantly reappear; or again, they perceive a part of their body gnawed by worms; they shake them off, striving most anxiously to knock them off and cast them to the ground.

*Epilepsy the Result of Intoxication with Absinthe.*—Epilepsy is, therefore, a phenomenon which can only be regarded as the manifestation of the most intense form of alcoholism.

Louis C—, æt. 32, admitted at Bicêtre on 31st October, 1863. This man enjoyed good health, and was of temperate habits until the beginning of 1861, when he became a wine merchant. At this time he began to drink, at first wine and brandy, then shortly absinthe.

The symptoms of alcoholism were not slow in appearing, in the form of occasional vertigo. During 1863, C—, to keep himself up, used liqueur d'absinthe more freely; the attacks of vertigo became more frequent and, in a few days, there occurred attacks with sudden loss of consciousness, falling, contortions of the face, convulsions of the limbs, bloody froth on the lips, and biting of the tongue. One of the attacks occurred in church, during a funeral, the other on a staircase; in both cases the attacks occurred unexpectedly.

Delirium, with frightful hallucinations, immediately affected the patient, and necessitated his removal to the Bicêtre, where he was admitted on 31st October, 1863, presenting the symptoms of an attack of acute alcoholism. He recovered very rapidly, and at the end of a month he was discharged.

On his return home, he was not long in resuming his old habits, and, accordingly, the symptoms of alcoholism were not long in re-appearing. Some time after, after a fresh excess in absinthe, there occurred an epileptic attack resembling the former.

The patient was brought back, 28th April, 1864, to Bicêtre, where he remained, until recovered, until the beginning of June. Discharged for the second time, he gave up for some time the use of absinthe, but he began, at the end of a few days, to drink wine and brandy. His sleep became bad, hallucinations appeared of the usual distressing character; his appetite was lost; in the mornings he discharged quantities of phlegm, and the limbs became unsteady. This condition continued for two months, but C—, finding himself very feeble, had recourse once more to his favourite intoxicant. Immediately absinthe brought on fresh attacks of epilepsy. C— entered Bicêtre for a third time. 5th December, 1864. At the date of his admission, there were still to be seen marks where the tongue had been bitten, striking evidence of the last attack.

Such is the case; we might almost call it experiment. The patient was a strong man, up to that time free from all alcoholic and convulsive symptoms. He began with an excess of wine and brandy; then he takes to absinthe and becomes epileptic.

With his first residence in the asylum, these symptoms disappeared. Once discharged, he begins again to drink; the symptoms of alcoholism reappear at once; he takes absinthe, and another attack of epilepsy occurs. During his residence in the asylum the symptoms disappear. For the third time we have excess in wine and brandy, followed by alcoholism; excess in absinthe, and attacks of epilepsy are added. Residence in the asylum and sobriety again result in the symptoms disappearing.

Can effect be more intimately associated with the cause? Can we not separate the deleterious influences caused by the alcohol from those due to absinthe? Absinthic epilepsy could not be more clearly demonstrated.

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## 2. *German Retrospect.*

By T. CLAYE SHAW, M.D. Lond., Med. Supt. Metropolitan Asylum,  
Leavesden.

*Concerning an Affection of the Nervous System after Smallpox and Typhus.* By Professor C. WESTPHAL.

After remarking that the most different kinds of acute fevers may be followed by more or less persistent ailments of the nervous system, shewn partly as psychic lesions, partly as general or limited lesions of sensibility and motion, Professor Westphal proceeds to relate some cases seen by him during the great epidemic of smallpox which raged in 1857 at Berlin, which were followed by certain sequelæ, and which he has also seen in the present one, though hitherto not described.

And yet, as the cases related occurred in the space of half a year, they cannot be so uncommon. Two of them occurred in the practice of Dr. Wolff, a third in that of Dr. Schlesinger, and the fourth was taken from the Professor's own clinic of nervous diseases. Like sequels had been besides previously noticed after a case of typhus. The following facts were observed:—

1st Case.—In the precursory stage of smallpox, lesion of the sensorium and persistent affection of speech, afterwards shaking of the head, ataxia of the upper extremities, incapacity to stand and to walk; appearances of ataxia in the lower extremities on walking by means of support; no unsteadiness when the eyes are closed; sensibility intact. Later on, slight improvement and alteration of the gait.

2nd Case.—Comatose condition at the commencement of sickening for smallpox; followed by lesion of speech, ataxia of the arms and legs. On later examination, lesion of speech, slight motor feebleness of the left arm, difficulty and slowness in the finger movements; stiff gait, but no appreciable ataxia of the lower extremities; deterioration of sense of smell, and loss of power to sneeze; swallowing difficult (?); anomalous state of mind; feebleness of memory.

3rd Case.—That of a man who in 1864 had cholera. In 1865, after a fright through a horse, he suddenly fell unconscious in the street, and lay so for several days. In 1871, after lying ill and unconscious at home for eight days, he was received into the smallpox hospital. He afterwards complained solely of *difficulty of speech*. The movements of the tongue were perfectly free; the impairment of the motor power of the extremities was in this case doubtful, owing to a congenital want of symmetry in them.

4th Case.—Smallpox eruption. Hoarse voice, lesion of speech and ataxia of upper extremities; difficulty in moving the fingers, especially of the right ones.

5th Case.—Typhus. Followed by ataxia of the upper and lower extremities, involuntary rhythmic movements of the head, lesion of speech, difficulty of swallowing. Lesion of speech on questioning; irregular pauses on quickly moving the extremities; clumsiness and slowness in using the hands; spasmodic movements of the arm under strenuous efforts. Slouching gait; trembling of the legs after standing some time, or when the feet are close together; no unsteadiness when the eyes are shut; perfect sensibility of the skin.

In all these cases the lesion of speech is constant and peculiar. It is extremely slow, drawn out, *progressive* (scandirend), the separate syllables being jerked out at short intervals with difficulty and visible effort; it differs from the speech in general paralysis of the insane, chiefly in the peculiar stopping at the articulation of the syllables, there being no *misplacement* of letters. For instance a "general paralytic" would say artillerrary instead of artillery, whilst the class under

notice would say ar-til-le-ry ; and in speaking thus, there is no trembling of the lips and face-muscles, nor is the tongue affected in its steadiness and free movement. Besides the lesion of speech there was in all an alteration of the voice which became monotone, without modulation, and *nasal* in character. In four of the cases (See above—1, 2, 4, 5) there was ataxia of the extremities without any manifest diminution of motor power. The best example was in Case 1, of ataxia in the upper extremities ; in the lower extremities it was especially the left leg that suffered.

A peculiar phenomenon was besides noticed in three of the cases. It consisted in this : that certain movements for their completion had to be executed by stops or pauses, or one already executed was repeated—*e. g.*, when one of the persons moved a finger the movement was executed twice, one after the other. With difficulty and slowness were the fingers moved (such things, *e. g.*, as beating a drum or imitating the pianoforte playing) in all the patients. Sensibility of the skin was normal in all the cases, except that in two of them, where ataxia of the lower extremities still persisted ; there was a feeling of tightness over the knee-joint which apparently originated from the quadriceps extensor. The examination of the muscular sensibility was interesting. One woman when lying down, and with closed eyes, exactly imitated with one extremity the position in which the other was placed. Another person under similar circumstances lifted the right leg somewhat higher than the left ; if by an induction-current the foot of one side was placed in a certain position, the movement was correctly imitated with the other foot, and he had plain feeling of contraction of the muscles. The slightest passive movements of the lower extremities were perceived by both patients, as also a weight suspended from the foot was correctly guessed.

Changes in the mental condition were in the 1st and 2nd cases established ; they were, too, similar in character. At one time the alteration consisted in a very striking *excitability*, where on the slightest occasion, on a matter that would at an ordinary time not have caused the slightest warmth, they became heated and angry. Again, the memory of both for *numbers* (especially in the man) suffered ; whilst the intelligence of the woman appeared intact, or, at least no lesion could be proved, that of the man on the other hand appeared to have of late become rather childish and silly, though on being questioned he behaved calmly and shewed good judgment. In one instance the left corner of the mouth was slightly drawn up, but paralysis of the facial nerve was not met with. Whistling was difficult or impossible and the patient related in Case 2, instead of contracting his cheeks to whistle, blew them out.

On the whole, Dr. Westphal concludes that the affections of the nervous system after small-pox and typhus are not to be distinguished from those occurring after other acute illness. Since Gubler's time, who has the merit especially of having investigated the subject on

general grounds, one cannot doubt that after the most various acute diseases lesions of the nervous system appear similar to those we have just observed after smallpox and typhus, and although the instances of nerve-affections after other acute diseases are not very numerous, still there is a sufficient accumulation of matter to prove it.

Thus we find the *shaking of the head* related in two cases of Bourdon and Duroziez by Gubler, and this, with other appearances on the side of the nervous system, occurred after erysipelas of the head; again, in a case related by Benedict, was the *shaking of the head* after typhus observed, as also trembling movements of the legs on standing. Lesion of the speech has been noted, but no particulars of the kind of lesion have been given, simply an assertion that the speech was affected, and that there was a nasal twang. Ataxia of the extremities after typhus is related by Eisenmann, of Vienna, who gives in his work on "Ataxic Movements," an account from Eulenberg of a girl 14 years old, who had a progressive ataxia after typhus, which was completely cured by gymnastics. Jaccoud, of Paris, says that he has only once seen ataxia after diphtherite, but he suspects that many of the cases of so-called "palsy" after diphtherite were really ataxias. Brenner, too, has seen ataxia after diphtherite (and typhus?).

To give a *resumé* of the chief appearances which, either altogether or in part, were observed in these cases, they are—1st, a peculiar lesion of speech and change of the voice; 2nd, alteration in the expression of the physiognomy; 3rd, ataxia of the extremities, whilst the sensibility of the skin, and perhaps also the muscular sense, is retained; 4th, a peculiar clumsiness and drawling of certain movements of the extremities even in those cases where a previously-existing ataxia had entirely, or almost entirely disappeared; 5th, a repetition, irregular, or by fits and starts, of separate movements of the extremities; 6th, shaking of the unsupported head, and trembling of the lower extremities; 7th, alterations of mental tone.

From reading over these symptoms we cannot fail to be struck with the great similarity between them and those of *gray degeneration* of the brain and spinal cord, described by Charcôt, Vulpian, and others of that school—a condition which involves particular portions of the central system, as the pons, medulla oblongata, &c. Now, of all the symptoms above given, the lesion of speech has the greatest resemblance to those met with in gray degeneration; and the second very characteristic symptom is the shaking of the head and extremities, and which is a very different thing from "paralysis agitans," which is not accompanied with palpable lesions. Together with these we must note the ataxia without notable affection of the sensibility, and by which this disease is distinguished from the ordinary gray degeneration of the posterior columns. Finally must be mentioned the alterations of mental tone partly existing as excitability, partly as feebleness of memory and intellect. It is hard to say what are the fundamental



alterations of the nervous system in our cases, for, from the mode of access and the course of the disease, nothing can be made out. It is a question whether palpable lesions are present or not, and if they are, whether they are seated in the central or peripheral portion of the nervous system. Bearing in mind the post-mortem discoveries of small-pox, one might in the first place suspect the hæmorrhages which are often found in the partitions between trunks of nerves and in the septa between the single nerve bundles. Whether any, and if any what, disorder of function of the nerves in question is occasioned thereby we know not; that, however, motor lesions, such as were found among our cases, especially the ataxia, were thereby brought about, is in the highest degree improbable. Neither does the Professor know whether effusions of blood in the centre organs are common in small-pox, though, after his former experience, he doubts it. Finally, he is compelled to reduce the causes of these effects to singly disseminated small effusions of blood, whose mode of action must be something analogous to the gray masses of the "gray degeneration." As to localisation of the mischief, we must, above all, think of the brain, since the beginning of the ailment is with loss of consciousness or delirium, on the cessation of which the motor affections appear; but it is as yet utterly impossible to exactly localise the parts of the brain diseased. It appears, indeed, to be the most probable that a crass, palpable lesion of the central nervous system is not necessary, judging from cases of other kinds where with fully developed paraplegia no lesions of any sort have been found. Perhaps general alterations of the nervous system as a sequel of small-pox poison exist which cannot be shown. In many epidemics of typhus, however, as also (in Dr. Westphal's own experience) in those of small-pox, a peculiar *consistence* of the brain has been often noticed.

It does not appear that there existed any predisposition of the nervous system to take on this action, hereditary tendency to nerve weakness especially. On questioning the patients nothing could be elicited to show such a predisposition, except that two of the persons had been thought rather *eccentric*, and in the case of the man who lost consciousness from fright, perhaps a slight injury to the nervous system might be recognised. In each case it might be distinctly declared that the eruption was very moderate, and the disease altogether of a mild form; in no instance was the eruption *confluent*.

Some have thought that the lesion of the nervous system depended upon a diphtheritic affection accompanying the variola, but this is impossible, because the motor affections appeared at times during the period of incubation, at others at the commencement of the eruption. The question of *disease of the muscles*, which has been raised, has really no ground to go upon.

The prognosis of this disease is not very favourable, for quite half a year after the commencement of the affection (in the 5th case a full year afterwards) no cure had taken place, and the improvement pro-

ceeded only very slowly. The remedies employed seemed of no use, and a general tonic treatment appeared the most hopeful.

Dr. Westphal appends a case which presented a great similarity in the symptoms to those already mentioned, though its ætiology was entirely different. It occurred in a journeyman carpenter, 22 years old, who sustained on Sept. 13th, 1867, a compound fracture of the right arm from a falling beam, but it was well established that the head was in no way injured. Apart from the fracture he felt well in every way until the 18th November in the same year. On the morning of that day there appeared for the first time symptoms of lesions of the nervous system, in many respects analogous to those we have seen after small-pox and typhus. It is sufficient in this place to mention the affection of speech, which seems to have had the same character, of "continuous slight, swinging, movement of the head, ceasing when the head was supported, ataxia of the extremities, with perfect sensibility of the skin, and normal perception of passive movements, power of standing firmly when the eyes were closed, peculiar jerking movements of the extremities, and slowness in executing the movements, besides the phenomenon that the intended movement, as a rule, was not simply and by itself performed, but that in addition "second, smaller, but resembling it," followed. In this case, too, the condition remained stationary a few years, and withstood all treatment by iodide of potassium and the constant current. What the lesion causing these appearances was can only be surmised. This peculiar speech-affection was recently observed in a young man who went to bed quite healthy, and awoke in the morning so affected, without any other signs of disease. At first he could not utter a single word, after a time he began to talk in single and scarcely intelligible words, and when seen a few days afterwards, his speech was in every respect like the instances related (it was even "nasal," without any affection of the soft-palate); there was the same inability to modulate the voice and the peculiar laugh, and so on, but not a trace of aphasia. An improvement, bordering on recovery, occurred after a few months. The patient sprang from a nervous family, and had two sisters who suffered from hysterical (or hysterico-epileptic) fits.

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### 3. *Protracted Legal Proceedings on account of Alleged Illegal Detention in a Lunatic Asylum.*

Every now and then a case crops up illustrating the serious responsibility and risks which a medical man incurs in signing a certificate of lunacy, but perhaps no better instance can be brought forward in support of this statement than the one known in Scotland as "the Mackintosh of Holme Case." The

extracts from the newspapers tell their own tale, and make remarks almost superfluous ; but we may state for the benefit of those interested in the matter, that in the "Journal of Mental Science," vol. x., they will find remarks on the case, in one of its aspects, by Dr. Tuke. In vol. xi. of the same Journal, p. 616, there is a notice concerning a testimonial presented to the proprietors of Saughtonhall, the asylum in which Mr. Mackintosh was detained; the subscribers, chiefly medical men, expressed their sympathy with the physicians at the head of the institution for the very unpleasant and expensive case into which they had been brought. But as there are always two sides to a question, and we can only arrive at the truth by examining both, we append a letter by Dr. Mackintosh which appeared in the "Inverness Courier," April 25, 1872, in which he gives his views on the matter so long disputed. We give the extracts from the "Scotsman" at full length, otherwise the legal niceties might be imperfectly indicated.

MARCH 11, 1872.—HIGH COURT OF JUSTICIARY.—In this Court on Saturday, before a full bench, there was taken up an appeal on the part of Mr. Angus Mackintosh, praying for criminal letters, without the concurrence of the Lord Advocate, the object being to proceed against Dr. Graham Weir for granting a warrant under which the appellant was placed in an asylum in 1852. Mr. Mackintosh appeared in person, and stated that his counsel, Mr. Scott, was not able to be present. The Lord Justice Clerk remarked that probably the best course would be to postpone the case, in order to have the technical point involved in it argued by counsel. Mr. Mackintosh said that some years ago he wrote to the Lord Advocate setting forth his case, but his Lordship declined to prosecute at his own instance. The appellant then asked if his Lordship would give his concurrence to a private prosecution at his (Mr. Mackintosh's) instance, and was informed, in reply, that such concurrence would be given or withheld on the proper letters being presented to the proper official at the Justiciary Office. Subsequently the appellant discovered that there was a process for applying to a local judge—Justice of Peace or Sheriff—to bring accused parties before them for preliminary examination, and, thinking that it would be important in this case to give the accused an opportunity of emitting a declaration, he prepared a petition to the Sheriff of Mid-Lothian, and sent it to the Procurator-Fiscal for his concurrence, which, however, the Fiscal declined to give. At the Justiciary Office, the appellant's agents were informed that an application for criminal letters was necessary, and he then, by the advice of Mr. Scott, sent the petition which had been returned by the Procurator-Fiscal, with application for criminal letters, in which the charges were

identical, to the Lord Advocate. The petition was returned with an intimation that the application must be made in the Justiciary Office in Edinburgh, and on enquiry at the Justiciary Office, the appellant was informed that it was no part of their business to submit documents for the Lord Advocate's concurrence. Another petition was sent to the Procurator Fiscal, but he declined to give his concurrence, whereupon Sheriff Davidson was petitioned to ordain the Fiscal to concur, but refused to do so. The appellant then sent the present application to the Lord Advocate, and received a reply from the Crown Agent to the effect that, being of an opinion that it was not fitting he should grant his concurrence to such a prosecution, proposed to be instituted nearly twenty years after the occurrence of the alleged facts on which it was founded, without any explanation of the delay, his Lordship refused his concurrence. The Lord Justice-Clerk said he thought the Court should appoint the case to be argued by counsel, and intimation to be made to the Lord Advocate to that effect. The case was accordingly adjourned till Friday next.

MARCH 16, 1872.—HIGH COURT OF JUSTICIARY.—THE APPLICATION FOR CRIMINAL LETTERS.—In the High Court of Justiciary yesterday, before a full bench, counsel were heard in the appeal on the part of Mr. Angus Mackintosh, praying for criminal letters, without the concurrence of the Lord Advocate, the object being to proceed against Dr. Graham Weir for granting a warrant under which the appellant was placed in an asylum in 1852. The appeal came before the Court on Saturday last, and was continued for argument by counsel, and that intimation might be made to the Lord Advocate to that effect. Mr. Rhind and Mr. Campbell Smith appeared on behalf of the appellant, and the Solicitor-General and Mr. Balfour, Advocate-Depute, appeared for the Crown. Mr. Rhind said that the question now to be argued was as to the competency of the application now made. The only book which was written on the matter was a treatise published in 1752 by Mr. John Lothian, a writer in Edinburgh, which stated that if a private party intended to prosecute a complaint in this Court, then a memorandum for drawing a bill for criminal letters was made out by His Majesty's Advocate or Depute; and the bill being made out, His Majesty's Advocate gave concurrence thereto, and granted the same. He contended that, while that might be a statement of the ordinary course of procedure, a private person had a right to prosecute without the concurrence of the Lord Advocate at all, and submitted that in any case the concurrence of Her Majesty's Advocate was a mere matter of form, though he admitted that it had become usual to have the concurrence of the Lord Advocate. It was unnecessary to have the concurrence of the Lord Advocate, and if it was necessary, the Lord Advocate must give it; and he asked their Lordships if they thought it necessary to remit to the Lord Advocate to concur in a bill for criminal letters. Lord Neaves asked if there was any example of criminal letters at the instance of a private party

without concurrence. Mr. Rhind replied that he did not know that the records existed so far back as these cases, but he thought it was quite clear that there were such cases. The Solicitor-General said that the office of public prosecutor was introduced by the Act of 1587, and since that time the office of public prosecutor had continued to exist with great advantage in Scotland. The public prosecutor had been found of so great advantage to the country, and the prosecution of crime had been so advantageously carried on, that it had never been worth the while of almost any person to attempt to prosecute at his own private instance. While the right to prosecute by private parties did exist, it had been laid down by constitutional writers that, with a view to public interests, and with the view also to prevent unnecessary prosecutions, no criminal letters should be issued by the Court of Justiciary without the concurrence of the Lord Advocate. The fact that the Lord Advocate's concurrence was required in order to private prosecution had this great public advantage, that he, as a public officer, considered upon his responsibility whether or not a particular prosecution should or should not proceed, being charged with the due prosecution of all the crime that was committed in Scotland. It was not an improper thing that the public prosecutor should be entitled to form an opinion as to whether or not any particular prosecution should or should not proceed. If information was given to his Lordship of a crime being committed, it was his duty to consider whether, as public prosecutor, he should or should not prosecute, and upon that matter he was vital, so far as his own department was concerned, and responsible only to Parliament. It was important for the public service, and for the interest of the nation at large, that the Lord Advocate should also be entitled to judge of the further question whether, if he resolved not to prosecute in his own name, he should or should not give his concurrence to a prosecution at the instance of the private person alleging himself to be aggrieved. If the power was not vested in the hands of the Lord Advocate, then it followed as a matter of course that their Lordships must issue criminal letters to any one who demanded them. If a bill was presented charging a person with crime, and asking criminal letters in order that the person might be tried, he did not see what means their Lordships had for making any inquiry as to whether or not they would direct criminal letters to be issued; and unless the Lord Advocate was entitled to interfere in the matter, it seemed to him that any person might press any subject of the realm to the bar of a criminal court. Mr. Campbell Smith also addressed the Court on behalf of the petition, and said that if their Lordships thought it necessary to remit the matter, he would move "that it be remitted to the Lord Advocate to grant concurrence, or to show cause why he does not." After consultation, the Lord Justice-General stated that he would adjourn the case till Saturday at two o'clock. The Court then rose.—"Scotsman," 16th March, 1872.

MARCH 18, 1872—HIGH COURT OF JUSTICIARY.—THE APPLICATION FOR CRIMINAL LETTERS.—The appeal by Mr. Angus Mackintosh, praying for criminal letters without the concurrence of the Lord Advocate, came before a full bench in the High Court of Justiciary for decision on Saturday. The Lord Justice-General said—The Court are not prepared to grant a fiat upon the bill; but it has been brought to our knowledge—a fact which does not appear on the face of the bill at all—that the concurrence of the Lord Advocate was applied for by the applicant, and was refused. In these circumstances, we think it right to supersede consideration of the bill, to give the applicant an opportunity, if so advised, of presenting a petition to the Court, praying for any remedy that he may be advised is competent, with a view either to obtaining the concurrence of the Lord Advocate, or to being allowed to prosecute without such concurrence.

The following is Mr. Mackintosh's letter to the editor of a well-known newspaper in the north. As will be seen by it, the writer brings forward his case as an argument against the adoption in England of a public prosecutor. It may be remarked in passing that the Scotch, as a rule, have such confidence in this functionary that they really cannot understand how the people in England get along without him, or some official endowed with similar powers.

Mr. Mackintosh's letter is dated from London, 16th April, 1872:—

SIR,—A strong feeling prevails in England in favour of the adoption of procedure against criminals by a public prosecutor in preference to the present system of private prosecution. Before the Procurator-Fiscal and Lord Advocate machinery come to be incorporated into English law, I would, with your permission, advise the adoption of provisions to prevent the public prosecutor from being constituted virtually omnipotent, as seems to be the case in Scotland, under the system prevalent there. The hardship of such omnipotence may be briefly illustrated by my own experiences. Although the right of private persons to prosecute for crimes by which they have been wronged does undoubtedly exist in Scotland, the exercise of the right has of late years been very rare.

A considerable number of years ago I was forcibly conveyed to a lunatic asylum on the outskirts of Edinburgh, on a sheriff's warrant, based on a certificate granted by two medical men, to the effect that "from their own personal observation, and from the report of credible witnesses," I was in such a condition as to require confinement in an asylum. No definite allegations, however, were made of circumstances either personally observed or testified to by others. These doctors had taken no pains to diagnose my condition, and one of them, indeed, only casually glanced at me for a few minutes through a slit in

the door. I was fortunate enough to make my escape from the asylum after an incarceration of 38 days, and so conscious were those at whose instance I had been confined that my condition did not, and had not, justified their action, that no attempts were made to recapture me, although technically I was none other than a lunatic at large.

As soon as I found it in my power I commenced and carried out several different actions in the Civil Courts against all concerned in my consignment to, and confinement in, the asylum. These litigations extended over a series of years, and my efforts to obtain satisfaction for the wrong done was unfortunately frustrated either by technical objections, by faulty issues proposed to juries, or by a consideration on the part of those in authority rather for the public interest felt to be involved in refraining from empowering medical men concerned with the management of lunatic persons, than from injury done to a private and isolated person. The statement may seem almost incredible to anyone unversed in the "circumlocution" of legal procedure before the Court of Session, yet it is true that under the best legal advice I could procure I exhausted every mode of process which could be thought of as applicable to my case, and yet the obvious issue that would at once present itself to any man of fair reasoning powers and ordinary common sense, is that one upon which the whole matter hangs, the question, namely—what were the facts observed by the doctors? What were the circumstances communicated by credible witnesses? Are these facts true?—if true, do they justify the certificate? This issue, these questions, were all along evaded, and in the whole of these litigations never came under consideration.

I thus could obtain no satisfaction in the Civil Courts for the wrong which has been done to me, and this being so, I determined to resort to the criminal Courts in hopes of finding in them the redress refused me in the Civil Court. Had the jurisdiction lain in England my course of action would have been very simple. If my statement of facts before a magistrate afforded a *prima facie* ground of complaint, a summons would have been granted me, a public examination of the accused made, and either a discharge for want of sufficient cause for committal, or else a committal for trial before a superior Court, with myself bound over to prosecute. But in the happy land of the public prosecutor no such simplicity of justice is possible. I applied to the Lord Advocate to initiate an inquiry with a view to a criminal prosecution of those who had wronged me. He referred me to his local subordinate, the procurator-fiscal of Mid-Lothian. That gentleman declined to act, and I seemed "brought up all standing," as sailors say.

But my attention was called to legal authorities which stated that the right to private prosecution had not been killed in Scotland by the institution of the office of Lord Advocate in 1587, and that it was open to me to proceed at my own individual instance with the concurrence or concurrence of the public prosecutor, who, it seemed, was

bound to assign cause for refusal of his concurrence, or without that concurrence if need were.

I made every effort to obtain the concurrence of the public prosecutor, and was driven from pillar to post, and from post to pillar in the most harrowing and wearisome fashion. At length his concurrence was definitely refused, and I am left to obtain what redress I may, if any.

I quote the position assumed by the Lord Advocate with reference to criminal processes, as defined by the Solicitor-General, his immediate subordinate:—

“The public prosecutor had been found of so great advantage to the country, and the prosecution of crime had been so advantageously carried on, that it had never been worth the while of almost any person to attempt to prosecute at his own private instance. While the right to prosecute by private parties did exist, it has been laid down by constitutional writers that, with a view to public interests, and with the view also to prevent unnecessary prosecutions, no criminal letters should be issued in the Court of Justiciary without the concurrence of the Lord Advocate. The fact that the Lord Advocate’s concurrence was required in order to private prosecution had this great public advantage, that he, as a public officer, considered upon his responsibility whether or not a particular prosecution should or should not proceed, being charged with the one prosecution of all the crime that was committed in Scotland. It was not an improper thing that the public prosecutor should be entitled to form an opinion as to whether or not any particular prosecution should or should not proceed. If information was given to his lordship of a crime being committed, it was his duty to consider whether, as public prosecutor, he should or should not prosecute, and upon that matter he was vital, so far as his own department was concerned, and responsible only to Parliament. It was important for the public service, and for the interest of the nation at large, that the Lord Advocate should also be entitled to judge of the further question whether, if he resolved not to prosecute in his own name, he should or should not give his concurrence to a prosecution at the instance of the private person alleging himself to be aggrieved.”

I submit that the power here claimed is a power of too much responsibility to be vested in any individual member of the community, no matter of what position, and how much less if, as is the case with the Lord Advocate, and his subordinates down to the lowest ramification, the responsible person is a practising lawyer. There are those who urge that the Attorney-General is using his position to bear hard upon the man to whom he was opposed in the Civil Courts, when acting on behalf of private persons. But suppose the Attorney-General had been for the Claimant, and on the lapse of the civil suit he had thought himself not called upon to advise the Government to take up the criminal prosecution of his *ci devant* client? He might have been acting in the purest *bonâ fide*, but the outcry would have been great. Yet notwithstanding such assumed declinature of Government to prosecute, there would have remained the right of private prosecution. But in Scotland, if the view of the Lord Advocate as to his own powers is to become law, a similar train of circumstances would



have been possible, with this difference, that there would have remained no recourse to private prosecution, and that the declinature of the Lord Advocate to institute a public prosecution would have been final.

I am, &c.,

ANGUS MACKINTOSH, of HOLME.

Having now given the case at considerable length, everyone may draw his own conclusions, for it is impossible to enter into and discuss the merits thereof. That there is a hardship on either side, is evident: if Mr. Mackintosh has a good case, it is hard that he has failed to get justice after twenty years of law-suits; but if the doctors were justified in granting certificates, then it is obvious that they suffer a monstrous wrong in being obliged to appear as defendants in repeated, costly, and vexatious actions. That physicians are liable to ruinous law proceedings at the instance of patients who wrongly believe that they have been badly treated, is a notorious fact which has frequently been under discussion, but from which no practical good has as yet flowed. In our anxiety to protect the doctor we must not be unjust to the patient, who may have just grounds for complaint. On the other hand, whilst the patient has the privilege of prosecuting the unskilful or negligent physician, there should exist some arrangement by which those who bring frivolous and unfounded charges against the professional conduct of any medical practitioner might be severely punished. Here lies the great difficulty, but there is no reason for considering it insurmountable. When the unsatisfactory state of matters was made evident by the recent Twiss case, the law was amended in such a way as to prevent the law being employed as a means of gratifying private malice. Perhaps such an arrangement, modified to suit the somewhat different circumstances of the case, might be applied to prosecutions for malpraxis. If, in such cases, the prosecutor, having failed to make out his case, were liable to a very heavy fine, corporal punishment or imprisonment, the probabilities are that we would have a great diminution in the number of cases of prosecution for malpraxis, and we would in no way injure the case of any patient who had a well-founded charge against his medical attendant.

F. W. McD.

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## PART IV.—NOTES AND NEWS.

## MEDICAL PSYCHOLOGICAL SOCIETY.

A Quarterly Meeting of the Medical Psychological Society was held on the 9th May, in the Hall of the Faculty of Physicians and Surgeons, Glasgow, Dr. Skae in the chair.

The minutes of last meeting were read and confirmed.

Dr. ROBERTSON, Towns' Hospital, exhibited a specimen of the brain taken from a man who had died of syphilitic disease.

Dr. ROBERTSON afterwards said—In the asylum under my charge there is a young woman 22 or 24 years of age. When admitted she was epileptic, very demented, and very irritable. The defect, I may say, was on the left hemisphere. She had very little articulation or language. These are the principal points, and if you will just pass the specimen round you will see that the hemisphere is very much contracted, and if you will also examine the upper part of the skull you will see the marked hypertrophy of the left side. I think that fact would indicate that the want of development occurred early in life, before the development of the bones had proceeded to any great extent.

The CHAIRMAN—I should be inclined to differ from you. I think it was a congenital defect from the hypertrophied state of the cranium, as I think that the cranium had never been developed in its present form.

Dr. TUKE submitted a specimen in illustration of a paper in the last number of the "Journal of Mental Science," in contradiction of Broca's theory of the localisation of language.

Dr. ROBERTSON—I do not think it is desirable to go into a discussion on the subject of aphasia. I have given a good deal of attention to the subject, and I read with interest Dr. Tuke's paper. It seems to me there is one point which has not been referred to by Dr. Tuke. That is, that the history of the case is not very complete. The disease has been of eleven years' standing, and Dr. Tuke supposes that here speechlessness has been for some time. Now that is an indefinite time; it may have been years. All that can be stated with regard to that is this: that although possibly language, according to Broca's view, may have been associated with a particular part of the brain, yet, by teaching, another portion of the brain may take on that which should have been carried out by the part destroyed. I am not here to defend Broca's view, and my own view is that lesion of conductors is frequently the cause of the aphasic condition. Dr. Tuke seems to think that this view is overthrown. I have not localised the conductors; I do not think there is evidence to do so, either of the one hemisphere or the other. It is possible that the conductors may lie in different parts of the hemisphere. All that seems necessary is that the upper end should be connected with the hemispherical ganglia, and the lower end with the centres of co-ordination. In my paper I referred to that—that it was not essential to the theory defined by me, that the conductor should always occupy the same part of the hemisphere, only the facts before us seem to indicate they were generally to be found in that part of the brain near where Broca alleges the seat of language is. I think it only right to point out these facts in connection with Dr. Tuke's paper; but they may likely be gone into more fully in another way.

Dr. TUKE—It should be stated that it was some weeks—I have since ascertained four or five weeks. It is quite true what Dr. Robertson says, that it is a wide subject, but I cannot help thinking that Dr. Robertson only increases the difficulty by the suggestion of the wide-spread diffusion of language over the whole brain. I am convinced in my own mind that the memory of words is in all probability diffused over the brain, and as the brain suffers by old age, the memory of words does so also.

The CHAIRMAN—The great part of the difficulty of reconciling the cases published, would be by supposing that the corresponding part of the brain on the right side is equally the organ of language. We can imagine that the left side is most constantly used, just as people are more frequently right-handed than left-handed, and that when the one organ is affected by disease the other may take on its action, as has been suggested.

Dr. ROBERTSON afterwards exhibited appliances for applying heat and cold to the head, chest, and spine.

The CHAIRMAN.—The cases where I think heat should be applied are those of acute dementia, or where dementia is threatened after acute mania. I recollect when in general practice the marvellous effects produced in the treatment of a child labouring under hydro-cephalus, by the continuous application of heat in the shape of poultices—a large one over the head and the other down the back. I have no doubt that these appliances, by facilitating the use of heat or cold, may turn out to be most valuable agents, and I hope the members may be induced to give them a fair trial and report progress.

Dr. IRELAND—I have taken some trouble to experiment upon the application of heat or cold, especially on the spinal cord. The latter I did with Dr. Chapman's spinal icebag, but I think Dr. Robertson's appliance, as it keeps up a circulation, has an advantage over Dr. Chapman's. Although in the application of cold Dr. Robertson has an advantage, it strikes me that Dr. Chapman's icebags can be conveniently handled. They do not require to be taken off for a long time at a temperature of 32. I first tried them in two cases of sea-sickness, with, as I thought, considerable benefit. I have also tried them in chest diseases. I think it of considerable value in the stages of pleurisy and bronchitis. When the respiration is very dry I have felt in fifteen minutes it becoming moist, at which time I think that anyone trying the hot water bag on the spine should be able to make out its effects with the stethoscope. I have tried the spinal icebag in epilepsy, but I cannot say that I have ever got any effects with which I was truly satisfied. I have several times introduced the icebag on the spine, and it occurred to me that in these cases it could not prevent the recurrence of the fit. I saw it applied in the Lancaster Asylum by my friend Dr. Shuttleworth in one of the most severe cases of epileptic fits I ever saw. Dr. Shuttleworth considers there is a certain benefit derived from the application of the icebag, but I would like more decided evidence, because there were a great many other remedies applied at the time.

Dr. CLOUSTON—Have you ever seen any ill effects from the application, especially of cold, to the head?

Dr. ROBERTSON—I only tried it in the case I have referred to.

The CHAIRMAN—I am sure we are all very much indebted to Dr. Robertson for his exceedingly interesting communication, and I think the profession is indebted to him for the invention of such an ingenious and simple apparatus, which promises to be so useful.

Dr. IRELAND then read a paper on "*The Classification and Prognosis of Idiocy.*" (Will be published in our next number.)

The CHAIRMAN—I am sure the Association is very much indebted, indeed, by the perusal of the exceedingly interesting paper of Dr. Ireland, which has, to me, and I dare say most of us, thrown a great deal of light on the important subject of idiocy—a subject to which our attention in this special department has been incidentally called, although not so prominently as by Dr. Ireland. The classification which has been produced by Dr. Ireland is certainly calculated to be of great practical value, and of great interest as illustrating the nature of idiocy more fully than I ever heard it illustrated before.

Dr. SHUTTLEWORTH (Superintendent of the Lancaster Asylum)—I am very much obliged by your allowing me to make a few remarks at this time. I will not trespass on that liberty at this time of day, and, indeed, I have very little to say. I am glad to have the opportunity of saying that the paper of Dr. Ireland has given a more lucid account of the subject than I ever met with in my reading in any of the works on insanity. The classification, I think, is very comprehensive, and I am not able to pick any holes in it. There is an idiot at the Broadbent institution, the circumference of whose head is  $15\frac{1}{4}$  inches by  $14\frac{1}{2}$ . It is the case of a girl 14 years of age whose education has been carried on to a considerable extent. She has been able to read and write and make herself useful in domestic affairs, almost to the extent of a girl three or four years older. She has this peculiarity—that she has no faculty whatever for calculation—I do not mean learning the multiplication table by rote, but she has not the slightest idea of adding two and one, or two and two together. There is another little boy at the Albert Asylum, who is very pugnacious, and who will always make himself master of any boy twice his own size, and that, I think, is almost in the three or four cases a constant characteristic. It was also so with the girl. She would take girls older than herself, and carry out her purposes. They seemed to have a good deal of character, and did not look as having brains of bad quality. There is only one other subject which I would like to touch on, that

is regarding epileptic idiocy. We all know the last speaker has introduced the views of Dr. Brown. Of course these are very important to us, who are connected with idiot asylums. As regards certain cases which have been subject to epileptic attacks, my own experience goes against the view that these cases are favourable for admission. At Earlswood, where there was no such rule, there were 80—about 15 per cent. of the whole number—and there was this striking fact, that of these there were between 40 and 50 cases incapable of improvement, whereas of the general mass six per cent. were simply unimprovable. I think that goes to prove the result that taking epileptics into institutions is not to be regarded with any great prospect of improvement.

Dr. CLOUSTON—I quite agree with you as to the value of Dr. Ireland's paper. I must express myself along with you, Mr. Chairman, as one of those who had come to learn. I have learned more from Dr. Ireland's paper than I ever knew before. Though the subject is one so closely allied to that which we practise, yet I fear it is too much neglected. The system of classification that Dr. Ireland has so carefully gone into is obviously an extension of the system of classification so ably wrought out by our Chairman. It proceeds on the same principles. It is surprising to find how closely the class of undeveloped brains seem to follow the class of insane brains. It seems as though there were a very close analogy between a brain deficient from infancy, and a brain that goes wrong afterwards from hereditary predisposition, or other causes. It shows how very valuable Dr. Skae's system of classification is, and that it is not only promising to become universally respected in this country, but also on the Continent, and that it can be now applied to idiocy with evidently the very best results. In regard to my own practical experience it is entirely confined—and I suppose it applies to the most of us—to epileptic fits. I think that our experience goes to confirm the opinions of Dr. Ireland, that this is a very unfavourable form of the disease. In two cases I may say, however, that the use of bromide of potassium failed to make any improvement in either of them. It could not be continued for more than four weeks, until the boy's tongue became white, and although his fit ceased and he decidedly improved mentally, yet in that time the dose had to be reduced and reduced until we found he could not stand more than five grains three times a day, and ultimately it had to be discontinued on account of its ill effects. The other case was characterised by an exactly opposite tendency. A boy of 14 years of age, in the Lancaster Asylum, could take one dram of bromide of potassium three times a day with perfect impunity. I never knew a similar example. It had never any effect in reducing the mental excitement—the troublesome and enormous muscular activity. I think I continued it for three months, and gave it up on account of its not producing any marked effect. That was the case when he was 14 years of age, and although I believe he never had another fit, still it had no effect, when tried in these enormous doses, of controlling the mental state. In regard to the size of the heads of idiotic patients, I have been very much instructed and gratified to have heard Dr. Ireland's opinions on the subject. I had laboured for a long time in the common belief as to the size of the heads of idiots, but on paying a visit to the Albert Asylum, Lancaster, I saw the most extraordinary specimen of a human head. It was a little larger than my fist, and yet the little fellow was evidently one of the most active and vigorous of the children in the room. I could not have believed it possible that there was any mental manifestation whatever in the child with a head so small. I can only, in conclusion, express my great gratification with Dr. Ireland's paper.

Dr. IRELAND—I think the perusal of Dr. Tuke's paper first put it into my head to arrange a classification of the kind which I have done.

The members afterwards partook of luncheon, provided by the Faculty. On re-assembling,

Dr. CLOUSTON read a paper on "Tumour of the Brain as a Cause of Insanity."  
(See Part I., *Original Articles*.)

The CHAIRMAN—I am sure all the members concur with me that we are very much indebted to Dr. Clouston for this instructive and elaborate paper on "Tumour of the Brain as a Cause of Insanity." I think it is not a subject easily discussed, and that it is one involving such a knowledge of details and facts, which may not be at the command of those who may be inclined to enter on the subject. So far as my recollection serves me, cancerous tumours of the brain are exceedingly rare, and so far as I remember, in considerably more than 800 cases which I have had, there was only one of tumour of the brain.

Dr. CLOUSTON—I remember one or two quite distinctly.

The CHAIRMAN.—There was an interesting paper, published by Wilde, of Dublin,

upon Dean Swift, who was generally regarded to be insane. An attempt was made to prove that he died of tumour of the brain, which produced symptoms very much like those ascribed by Dr. Clouston as due to tumours of the brain, viz., great irritability. I think, however, an escape of a quantity of pus relieved the Dean, and he recovered his good nature and sanity before his death. The paper is a very interesting one, and I recommend it to Dr. Clouston.

Dr. ROBERTSON.—I think a feature in connection with tumours of the brain is the frequent absence of mental disorder. Sometimes it happens that the symptoms are very slight indeed. I had a case of tumour of the brain under my care, some years ago, and had an opportunity of making a *post mortem*, and confirming the diagnosis which was made previously. The person was never in an asylum at all, but in the sick hospital. There was a degree of confusion of intellect and irritability, and a marked feature, which has not been adverted to in Dr. Clouston's cases, was the exacerbations and remissions, sometimes calm, intelligent, and clear, and free from pain, and at other times suffered considerable pain and considerable confusion of intellect. So far as my reading goes, that is the usual experience, and I should have liked if Dr. Clouston had referred to Romberg's test. He shows that when tumours are at the base of the brain there is greater pain and the uneasiness is greater, and, when the vertex is held, when the chest is full of air, the pain is still greater. Dr. Clouston had not observed that, and I am sorry to say that in my own case I omitted it also. It seems to me that tumours of the brain, taken as a class, affected rather the secondary centres than the primary centres, and this is corroborated by the fact that convulsions are frequent. Now, in Dr. Clouston's cases, convulsions were frequent, with the exception of one which I was doubtful. To produce mental disorder, it seemed to me necessary that the morbid condition from any cause whatever must affect the hemispherical ganglia in part. We often find disease, with reference to the brain in part, without any distinct affection of the mind. It does not seem to be inconsistent with the preservation of sanity, when situated at the base of the brain. Tumours, or any other morbid condition, must be regarded for the time as a peripheral cause, and like insanity produced by disease of the genital organs, or some other cause, as acting peripherally upon the hemispherical ganglia.

Dr. GAIRDNER—I have had very few opportunities of contributing to this particular subject. Dr. Clouston has ably treated of the combinations of symptoms of insanity, properly so called, with tumours of the brain. I cannot imagine any one placed in a more favourable position, or more impartial position as it were, than Dr. Robertson, for on the one hand he has the superintendence of an insane department of the Towns' Hospital, and a large accumulation of other patients. I may just state this very curious fact, that in my, I suppose 23 years' hospital experience, night and day, with a considerable ward one, where I was in the way of knowing about such matters as they occurred, I do not remember at this moment of having ever seen in any asylum a case which afterwards turned out to be a case of tumour in the brain. No doubt I have seen a certain number of them, but in no case were there symptoms of anything which turned out to be distinctly called tumour of the brain, and in no case were the symptoms such as to raise in my mind questions of sanity. No doubt many of these patients have been temporarily and at various stages of their disease in a state of coma or temporary delirium; but no one of them had anything like symptoms of general insanity. I consider that the two coming together was merely a coincidence, for the tumour was not the cause of the insanity, but only the incidental concomitant of it. I would extend this one step further. I think the aspect in which this subject strikes physicians in general practice is rather that of wondering how large lesions take place in the brain without symptoms of anything like general insanity, and how there was such an enormous destruction of cerebral matter without any symptoms of general insanity. I remember a case in which Dr. Scott and I were concerned, where this question was put to me. It was that of an old man who had died of symptoms of softening of the brain, and it became me to raise the question whether softening of the brain could agree with the intellect concerned. Every physician could answer that question in a very general sense, but the question was put to me by repeated enquiries from the judge and counsel as to whether I believed that softening of the brain could take place without the brain being affected. Of course I said I did not know; it was difficult to tell when the mind was affected. I said I should presume it was probable, and that probably it would leave its mark on the mind. I said I knew instances where considerable softening took place of a local character without affection of the brain expressly. In answer to another question

I said the only way to give a reply was by an instance. "A judge who sat in the chair your Lordship does now, died of softening of the brain, extending an inch and a half into the substance. I and others who saw the *post-mortem* appearances were quite satisfied that softening had been there for a considerable time, that he had been appointed a judge only three months before he died, and that I did not believe the question was ever raised whether his mind was in good working order or not." Now that is an instance which it is very seldom we have the means of putting so pointedly, and I only repeat it here just simply to say, in the first place, that I think we must not too rapidly spring to the conclusion that tumours were the cause of insanity in Dr. Clouston's case; and, in the second place, to say, with all due respect for the opinions of my friend Dr. Scott and others, that I think there is a tendency at present to assume too rapidly that the material lesions in the cases of insanity are the causes of the insanity. The tendency on the part of psychology is to form the belief that insanity is a disease of the material part. I have no prejudice, and I am not bound one whit to refute it, but I think we are a long way from the establishment of it, and although it may have a basis of fact, yet to my mind we are no more in a position to assume that insanity is a disease of the material substance of the brain than we are in a position to assume the contrary.

The CHAIRMAN—I agree with what has been said by Dr. Gairdner as regards lesions of the brain. As to the case to which Dr. Gairdner refers, of the judge labouring under softening of the brain, I think there is a little confusion. That case in which Dr. Gairdner and I were examined was not whether there was a limited growing softening of the brain at all. The case was one where the words "softening of the brain" were used in their popular sense to refer to general paralysis, and evidence was led to show this; whereas, the softening of the brain which existed in the judge was a growing softening.

Dr. GAIRDNER—The popular sense being wrong. There was one of my cases bearing a certain resemblance to Dr. Clouston's, where a man had medullary cancer in the brain. He had certainly great eccentricities, and such as made some persons believe that he was shamming. I never believed he was shamming, and ultimately the symptoms turned out to be medullary cancer, with symptoms of sudden aphasia.

Dr. TUKE afterwards read his paper on "The Case of Agnes Laing or Paterson." (See Part I. *Original Articles*.)

The CHAIRMAN—There is a very interesting paper upon a very interesting and important subject. I have no doubt Dr. Tuke is correct in the view which he takes of this case, although I think it is homicidal insane impulse without any other symptoms of insanity.

Dr. ROBERTSON—I would just make a single remark. It seems to me that the difficulty often in cases of law, and of discrepancy between the decisions of medical men and judges is, that judges in their instructions to juries often attempt to draw a hard and fast line between consciousness of right and wrong, between responsibility and irresponsibility. I think if that fact were admitted on the part of judges and juries, and if they said that the person who had committed an alleged crime was responsible, but that there were palliative circumstances of hereditary tendency, ill-moral training and example, these would remove a great deal of the present difficulties, and would help to bring together the decisions of medical men with the findings of judges and juries regarding particular cases.

The CHAIRMAN—That is the opinion I have always advocated.

Dr. GAIRDNER—I think Dr. Robertson has expressed what I would have been inclined to say, and although the idea of a medical assessor advising the judge might lead to some prevention of the miscarriage of justice and some other modifications being made, I do not believe that medical witnesses will ever be placed in a fair position in a court of law in questions connected with insanity until the law more distinctly and frankly recognises the decision that insanity is not a disease but a multitude of diseases. Insanity is a generic name involving all possible different degrees of responsibility and different degrees of power, and we must on the one hand recognise quite distinctly the position that insane people have responsibility in different degrees, and on the other hand recognise the position that these people are people who are not absolutely insane in the sense that they require asylum treatment.

The CHAIRMAN—I quite agree with both of the previous speakers. I think the mistake always made in reference to crimes committed by persons where insanity is alleged, is in their not being able to distinguish between right and wrong, and that the person found insane is no longer responsible. I have put it very strongly: but how could any man manage a large asylum of 5000 or 6000 patients, who were

not amenable to discipline, and who were not able to do what was right and wrong. We have certain limits, and it is curious that lawyers who do not recognise degrees of responsibility in regard to crimes, recognise degrees of capacity in regard to civil acts.

Dr. CLOUSTON—Judges and juries have to come to a definite decision on a given case, and supposing it is admitted that any given case is on the border land between responsibility and irresponsibility, what are they to do?

The CHAIRMAN—Let the jury bring in a verdict of culpable homicide, and leave the judge to pass sentence. It is no more difficult for a judge to pass sentence on a lunatic than in any other case of culpable homicide.

On the motion of Dr. ROBERTSON, a cordial vote of thanks was awarded the Chairman for presiding.

A similar compliment to the Faculty of Physicians and Surgeons, brought the proceedings to a close.

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## CORRESPONDENCE.

### APHASIA.—LETTER FROM DR. WILKS.

*To the Editor of the Journal of Mental Science.*

SIR,—The last number of your Journal contains a paper by Dr. Batty Tuke and Dr. Fraser on "A Case with a Lesion, involving Broca's Convolution without Broca's Aphasia." The authors say "it is one in which the posterior half of the third left frontal convolution was completely destroyed, both as regards the grey and white matter, and the only defect in language was partial verbal amnesia," and they finally declare that the case is "a complete testimony to the erroneous nature of Broca's convolutional localisation." I have read the case with care, and have come to a conclusion totally opposed to that of these gentlemen. This fact I was content to record in my note book, but having had on more than one occasion the case brought before my notice as an evidence of the incorrectness of the prevailing theory, and to which my own opinions incline, I have felt bound to state publicly that the case by no means warrants the inference which Drs. Tuke and Fraser have drawn from it; indeed, on the contrary, I regard it as one eminently valuable in proof of the truth of Broca's and his followers' views.

The authors of the paper give the various meanings which writers have attached to the term aphasia, and they then allude to the different opinions amongst observers as to the exact seat of the lesion which causes the phenomenon; they thus lead the reader to believe that much confusion of ideas exists in relation to the whole subject. This, however, is not the case, for the term aphasia is now generally understood in a tolerably defined sense, and the seat of the cerebral lesion associated with it is pretty well marked out. Most medical men understand by the term aphasia *amnesic aphasia*, the case where there is no marked paralysis of the organs of vocalisation, but the memory of words, with the object of expressing ideas in language, is gone. The patient may understand what he hears or reads, but he cannot express himself in language until the word is suggested to him, when he readily recognises it and repeats it. Such cases are usually met with in connection with right hemiplegia, and it is found that the convolutions on the outer and under side of the corpus striatum are injured.

It is consequently thought that the aphasia is an accident of the hemiplegia, in consequence of the proximity of certain convolutions to the corpus striatum, and that it is merely associated with it because one convolution is no more likely to become diseased than another, whilst the corpus striatum is especially liable to morbid changes. Should, however, the convolutions be alone affected and aphasia occur without hemiplegia, it would be an instance eminently selected to prove the correctness of Broca's theory. This seems to be exactly the case we have here. The patient, a woman, had softening and destruction of part of the under surface of the left anterior lobe, involving rather more than half of Broca's convolution, and her symptoms during life were as follows: "Her hesi-

tancy of speech was most marked when she came to a noun, the triatus varying in duration according to the uncommonness of the word. Latterly she could not record the commonest terms, and periphrases or gestures were used to indicate her meaning. She was always relieved and pleased if the words were given her, when she invariably repeated them. For example she would say, 'Give me a glass of —.' If asked if it was 'water,' she said 'no;' 'wine,' 'no;' 'whiskey,' 'yes, whiskey.' Never did she hesitate to articulate the word when she heard it." This last sentence is emphasized in italics by the authors of the paper, as if they had intended to imply that with the lesion described she ought not to have been able to articulate. As before said, the term aphasia is now used especially in such a case as is here described, where the memory of words has gone, whilst the power of speech remains. The case is likened to that of a man who in a foreign land knows a language through his ear, but cannot speak it, although he can readily repeat a word when given him. I should, therefore, with all deference, beg leave to draw a different conclusion from the facts of the case than the authors of the paper do, and regard it as one highly corroborative of the views of Broca and his followers.

SAMUEL WILKS.

Grosvenor Street, June, 1872.

LETTER FROM DR. A. ROBERTSON.

*The Editor of the Journal of Mental Science.*

SIR,—In the April number of the Journal there is a valuable communication by Drs. J. B. Tuke and Fraser on a case of aphasia in the Fife Asylum, with an account of the morbid conditions which were observed on examination of the body after death. Dr. Tuke showed the brain at the recent quarterly meeting of the Association in Glasgow; but as its exhibition had not been specially announced among the *agenda* for the meeting, and as there was a good deal of business on the billet, there was but little discussion on its important bearing on the general question of aphasia. I therefore beg that you will permit me to make a few observations in your columns, especially as I think that Dr. Tuke is disposed to deduce too sweeping conclusions from a solitary case, in regard both to Broca's theory and my own, or rather the part of mine to which he thinks it is opposed. Besides, though very reluctantly, I deem it incumbent on me, in self-justification, to correct the erroneous impression which Dr. Tuke's references to the latter theory are apt to convey, in regard to its nature and especially as to its author; for in papers published in the "Journal of Mental Science," the Edinburgh and the Glasgow Medical Journals, in addition to less formal articles submitted to the Medico-Chirurgical Society of this city, I have always spoken of it in such terms as would suggest what is the simple fact, that it originated with myself.

In Dr. Tuke's paper, at page 53 of the Journal, the following occurs:—"The pathological appearances in the specimen now before you do not stand opposed to *Dr. Bastian's theory*, so far as amnesia is concerned, for a considerable area has been taken away by the excavation; but they do not support *his idea* that the motor tract is diseased in aphasia, for we have no history of permanent hemiplegia" &c. Now what does Dr. Bastian himself say? I shall quote his own remarks on the point from his important contribution on the subject in the "Medico-Chirurgical Review" for January and April, 1869. After discussing the different theories which had been advanced in explanation of the aphasic state by MM. Lordet, Baillarger, Broca, Trousseau, and others, he points out that I had directed attention to the material objection to Trousseau's theory—that forgetfulness of words was the chief morbid condition, which arose out of the fact that the thinking power was comparatively unimpaired in many aphasics, and concurs with me in holding that, as a necessary consequence, language is in their minds. He then quotes from my paper the hypothesis I had submitted—"That there is a lesion of efferent fibres passing between the convolutions and the great co-ordinating centres, probably at some point of a line extending from the external frontal convolutions to the corpus striatum, so that voluntary motor impulse



for the articulation of language cannot be transmitted. The *essential* morbid change is therefore *motor*, and not *mental*.\* Afterwards he says, "As will be seen further on, *Dr. Robertson's view*, so far as it goes, is a closer approximation to what I believe to be the correct one than any of the others have been, though he does not speak of the mode in which words do become nascent in the mind of aphasic individuals, or further develop his theory." (The italics are mine.) No further comment should be required to establish who is the author of this, the motor theory of aphasia.

The special objects I had in view when I first entered on the discussion of the nature of aphasia, was to show that the prevailing ideas entertained regarding the mental condition of the sufferers were erroneous; and to prove that language was really in their minds, but was confined there because the media of expression were damaged or destroyed. These points I endeavoured to establish from a variety of considerations, based on anatomical, physiological, pathological, and metaphysical grounds, and also on the facts obtained by the careful study of several cases of the disease, then under my care. How far I was successful will appear from the very general acceptance of the theory by those who have thought most deeply on the subject.

When once it is admitted that the silence of the aphasic does not depend on lack of words, localisation loses much of its significance; for admitting that language is in his mind, the chief question is not, where is the organ of language? as the necessity for supposing that there is such an organ no longer exists, but merely where are situated the conducting and co-ordinating media for transmitting those impulses whose result is articulate speech. The preponderating weight of evidence points to their connection above with the external frontal convolutions; but I have not in any of my contributions to the subject assented to the view that they exist only on the left side. The majority of the recorded facts up to the present time certainly favour that belief; and I myself have published four cases, with *post mortem* examinations, which corroborate it.† But there are a few cases which show that the opposite doctrine is not untenable. We are not, therefore, in a position to arrive at a conclusion on the question; our duty is to wait for more facts, and to hold our judgment in suspense. I still cling to the idea that in the doctrine of vascular areas, as suggested by Dr. Hughlings Jackson, a solution of the seeming anomaly will be found. For if there be a difference in the anatomical arrangements of the vessels of the two hemispheres, such as is known to exist in other bilateral organs, it may be that in plugging of the artery (the most common cause of aphasia) on the right side, in lesions of that hemisphere, the strand of white matter containing the conductors for language is not deprived of its supply of blood, and speech does not suffer.

Another hypothesis has been proposed by me which, I think, is quite as credible as that the two hemispheres which resemble each other so closely should differ so materially in function; and it is also explanatory of the same lesion in different persons being attended with dissimilar effects *quoad* language. I quote it from my paper on "The Pathology of Aphasia."‡ "It is not necessary to suppose that the same fibres in every case act as the conductors for the incitations which give rise to language, as speech is an *acquired* faculty; so that possibly different fibres in different persons may transmit the impulses for words, provided only they are connected with the co-ordinating centres for articulation. If this were so, a lesion of precisely similar situation in two persons which caused aphasia in the one might not implicate speech in the other."

Dr. Tuke thinks it probable that the extra-ventricular nucleus of the corpus striatum is associated with "the faculty of articulate speech." In the "Lancet" of May 11th of this year, it is recorded that Dr. Bristowe had shown a brain to the April meeting of the Pathological Society, in which the left corpus striatum

\* Quoted from my paper on "The Pathology of Aphasia," in the "Journal of Mental Science" for January, 1867. The view of the nature of the aphasic lesion expressed in that article was communicated by me to a meeting of the Medico-Chirurgical Society of Glasgow, in the beginning of April, 1866, and afterwards published in the "Glasgow Medical Journal" for May of the same year.

† "Glasgow Medical Journal," February, 1871.

‡ "Journal of Mental Science," January, 1867.

was "entirely destroyed," but the power of articulation had returned in three or four weeks after the apoplectic attack. That case is opposed to Dr. Tuke's hypothesis. It also disposes me to think that the co-ordinating centres for articulation may be at a lower point of the brain; perhaps, as was formerly believed, in the medulla oblongata. And this view is strengthened by Dr. Broadbent's careful dissections, in which he found that very many fibres of the crus cerebri did not terminate in the corpus striatum or other central ganglion, but *passed by* them in their ascent to the convolutions.

I have, however, always thought that the lesion in aphasia was of efferent fibres *above* the co-ordinating centres; for in almost all, if not all recorded cases, the patients could pronounce one or more words distinctly. Had the defect been *in* these centres there would probably have been stuttering in the articulation of *every* word.

I am, &c.,

ALEX. ROBERTSON.

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### *Appointments.*

COURTENAY, E. MAGUIRE, A.B., M.B., T.C.D., late Clinical Assistant, West Riding Asylum, to be Assistant Medical Officer, Derby County Asylum.

BISHOP, S., M.R.C.S.E., has been appointed Assistant Medical Officer to the Fisherton House Lunatic Asylum, Salisbury, *vice* Barnard W. Wellings, L.R.C.P. Ed., L.F.P. & S. Glas., resigned.

LOW, D., M.B., C.M., has been appointed Assistant Medical Officer to the Perth District Lunatic Asylum, *vice* Brodie Cruickshank, M.B., C.M., resigned.

MICKLE, W. J., M.D., M.R.C.S.E., has been appointed Medical Superintendent of the Grove Hall Asylum, Bow.

M'LEAN, W. F., M.B., C.M., has been appointed Assistant Medical Officer to the Haydock Lodge Lunatic Asylum, Newton-le-Willows, *vice* D. Gentle, M.D., L.R.C.S. Ed., appointed to the Colney-hatch Lunatic Asylum.

RAYNER, H., M.D., M.R.C.S.E., has been appointed Medical Superintendent of the Male Department of the Middlesex Lunatic Asylum, Hanwell, *vice* W. C. Begley M.D., M.R.C.P.L., resigned.

RICHARDS, JOSEPH P., M.R.C.S., L.S.A., Assistant Medical Officer, Female Department, Hanwell, has been appointed Superintendent.

SUTHERLAND, H., M.B., M.R.C.P.L., has been appointed Lecturer on Insanity at the Westminster Hospital Medical School.

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*From the London Gazette, Friday, April 12.*

WHITEHALL, APRIL 11.

The Lord Chancellor has appointed CHARLES PALMER PHILLIPS, Esq., Barrister-at-Law, late Secretary to the Commission, to be a Commissioner in Lunacy, on the resignation of John Forster, Esq.

The Lord Chancellor has appointed JOHN FORSTER, Esq., to be an Honorary and Unpaid Commissioner in Lunacy, on the resignation of Colonel Morgan Clifford.

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NOTICES OF BOOKS RECEIVED, with other matters, are unavoidably omitted in this number, on account of pressure on our space.

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### NOTICE.

The next ANNUAL GENERAL MEETING of the Medico-Psychological Association will be held at Edinburgh on WEDNESDAY, the 31st July, under the presidency of Sir James Coxe, M.D. Notices of papers, &c., to be sent to the Honorary Secretary, 37, Albermarle Street.

# THE JOURNAL OF MENTAL SCIENCE.

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VOL. XVIII.

## PART 1.—ORIGINAL ARTICLES.

*On the Causes of Insanity, and the Means of checking its Growth; being the Presidential Address by Sir JAMES COXE, M.D., Commissioner in Lunacy, Scotland, President of the Medico-Psychological Association.*

GENTLEMEN,—In the following remarks I shall endeavour, as briefly as possible, to direct your attention to some important questions in connection with lunacy. For the purpose which I have in view it will be necessary to begin with some reference to statistics, but you will understand that such reference is of the baldest kind, and is not to be regarded as exhausting the light which it might throw upon the subjects discussed. Indeed, my statistics serve but as the rough pedestal on which to rest my arguments. It is highly probable that many whom I have the honour of addressing will differ from me in the views which I shall state, but I thought it well to take advantage of the opportunity which I owe to your kindness, to show you in what light matters with which most of you are familiar—so familiar, perhaps, that they may cease to excite your attention or stimulate you to reflection—appear from the stand-point of a Commissioner. But should you differ from me, I trust you will give me credit for having equally at heart with yourselves the welfare of the insane and the honour of the medical profession.

At 1st January, 1859, the population of England and Wales was 19,686,701, and the number of the insane, 36,762.\* These figures give a proportion of 1·86 for every 1000 of the population. At 1st January, 1871, the population of England and Wales was 22,704,108, and the number of the insane, 56,755.†

\* In asylums, 22,879; in workhouses, 7,963; in private dwellings, 5,920.  
† In asylums, 36,871; in workhouses, 12,161; in private dwellings, 7,723.

These figures give a proportion of 2.49 for every 1000 of the population. Thus, in twelve years the insane, in relation to the population, had increased considerably more than a third. Now, to what is this increase in the proportion of lunatics to be ascribed? Is it apparent only, and the result of the system inaugurated by the Lunacy Acts; is it due to an actual increase of lunacy; or is it partly apparent and partly real? That it is to a considerable extent the result of the operation of the statutes cannot, I think, be doubted. When the present lunacy system was inaugurated, many parts of the country were totally unprovided with asylum accommodation. The erection of asylums, accordingly, at once increased the list of the insane brought under official cognisance, without, however, adding to their actual number. There was merely a transfer of patients from private dwellings, where their existence was not officially known, to public establishments where they were registered and reported. But the statistics of every asylum show that the tendency of such establishments is to foster a continuous increase in the number of their inmates. The admissions exceed the discharges and deaths, and from this cause alone there results a steady and persistent increase in the number of patients. That herein lies the main cause of the increase, is shown by the fact that it goes on as steadily and persistently now that asylum accommodation has for some years been provided in every county, as it did at the time when the asylums were being opened. The increase of asylum patients in England and Wales in the twenty years, from 1st January, 1851, to 1st January, 1871, was 20,415, or at the rate of 1,020 a-year.\* In the four years, from 1st January, 1851, to 1st January, 1855, the increase was 4,037,† or at the rate of 1,009 a-year; whereas in the four years, from 1st January, 1867, to 1st January, 1871, it was 4,957,‡ or at the rate of 1,239 a-year. These figures indicate that between the two periods there was somewhat of a lull in the apparent growth of lunacy, but that in the second period there was a higher rate of increase than in the first, after making due allowance for the increase of the population.

Still, that the sole cause of the growth in lunacy lies in the mere tendency of patients to accumulate in asylums, is a theory which cannot be accepted; for it is shown by the Reports of the Commissioners, that the number of admissions

\* From 16,436 to 36,871. † From 16,456 to 20,493. ‡ From 31,914 to 36,871.

into asylums in 1859 amounted to 9278, equivalent to 47 for every 100,000 of the population ; while in 1870 they amounted to 11,462, equivalent to 50 for every 100,000 of the population. From these facts it is evident that the wide establishment of asylums has not diminished the occurrence of lunacy ; or, at any rate, that it has not diminished the proportion of the population sent to them, or the numbers of the insane collected in them. There can be no doubt of this fact ; it is palpable and undeniable. But the increase of the numbers of the insane in asylums can never in itself be accepted as proof of the increase of lunacy. There must be taken into consideration all the different influences which in modern society lead to persons being reckoned as lunatics, and removed as such from home. Chief among these are the facilities afforded by the poor-law for the gratuitous disposal of indigent patients in asylums ; and next to these the opportunities which asylums afford of getting quit of persons who from temper, disease, vice, intemperance, or old age, have become troublesome or expensive inmates at home. Under such influences the definition of lunacy has expanded, and many a one is accordingly now treated as a lunatic who formerly would not have been regarded as coming within the meaning of the term. Proof of this statement is, I think, afforded by the following figures :—Of the 16,456 patients in asylums at 1st January, 1851, 4397 were private, and 12,059 pauper. Of the 36,871 in asylums on 1st January, 1871, 6062 were private, and 30,809 pauper.

If we inquire what effect the wide establishment of asylums has had upon the number of the insane by promoting their recovery, we find that on an average of the three years, 1859-1861, the proportion of recoveries on admissions was 33·57 per cent., and on average of the three years, 1868-70, 34·08 per cent. These results may be regarded as practically identical, and they show that in recent years no modification has been produced in the rate of recovery by any real or supposed advance in the art of medicine. But here, too, there is room for fallacy. If it be true that many persons are now regarded as lunatics from mere decay of nature, and are sent as such to asylums, the ratio of recoveries must necessarily be depressed by the reception of these incurables ; and as the proportion of recoveries is on the whole a stationary one, it follows that there must be a higher ratio of recoveries among the other patients to neutralise the effect of this incurable

element. Thus, it may be that medical science really now does more for the restoration of sanity than it formerly did, although our statistics do not enable us to speak positively on this point.

The mortality in asylums, however, is frequently regarded as the best test of the successful or unsuccessful management of these institutions. But it is obvious that a high or a low mortality may be dependent upon influences altogether beyond the control of medical treatment. A man must die some time or other, and, accordingly, reference to the rate of mortality, without at the same time taking age, physical condition, and other circumstances into account, affords not the slightest indication whether death was due to preventable causes, or followed in the mere course of nature. The mortality in English asylums has scarcely varied during the period in which the Reports of the Commissioners have been issued. In the three years, 1859-61, it amounted in the County and Borough Asylums to 10·81 per cent. of the average numbers resident, and in the three years, 1868-70, to 10·70 per cent. From these facts it might be inferred that the condition of the patients on admission was equally good during the two periods. This deduction might be correct, but it is also not improbable that it would be wrong; for it might be that a high mortality among one section of the patients would be counteracted by a low mortality in another. Thus, supposing the mortality was high among those recently admitted, a low mortality among those who had been long resident would maintain the general mortality at the same figure. To what extent, then, the population of asylums is increased or diminished by the better or worse condition of the patients on admission, it is impossible from the data at our command to determine; but it is a fact of some importance in the consideration of this question, that the death-rate is a growing one when estimated on the number of admissions. In the three years 1859-61, the admissions into all the asylums of England and Wales amounted to 27,981, and the deaths to 7722, giving a proportion of 27 deaths for every 100 admissions. In the three years, 1868-70, the admissions amounted to 33,547, and the deaths to 10,949, giving a proportion of 32 deaths for every 100 admissions. It is not unlikely, however, that this augmented mortality may arise, wholly or partially, from the natural increase in the number of deaths caused by the increasing age of the asylum communities; or simply, as is more

probable, from the asylum population increasing in a faster ratio than the admissions, and so, in comparison, enlarging the field of mortality. There is some reason to think, from the growing preponderance of the urban population, and the extension of the factory system, that the condition of patients on admission, as regards the prolongation of life, is becoming more unfavourable; but unless we could ascertain that there was really an increased mortality among the recently admitted cases, this conjecture could not be accepted as proved. On the whole, everything considered, I fear we must come to the conclusion that during the last twenty years medical science has not succeeded in effecting any increase in the proportion of recoveries, or any decrease in the rate of mortality, among insane patients in asylums.

What, then, is the object sought to be attained by the establishment and constant enlargement of asylums for the insane? The answer to this question involves the consideration of many important points. We have gradually become so accustomed to the extension of asylums whenever they are full, that few stop to inquire whether this is the proper course to pursue. But a little reflection will suffice to show that the institution of asylums is merely an expedient to counteract an evil which has its origin in remote and complicated causes. When the Lunacy Acts were passed, a belief was extensively prevalent that the establishment of asylums would powerfully contribute to check the growth of lunacy, chiefly by the numerous cures they would effect, and by the difficulties they would place in the way of the propagation of the malady. We have seen that this hope has not been realised, but that, on the contrary, the number of lunatics has been greatly increased—partly through the more frequent occurrence of insanity if we may so interpret the increase in the number of admissions, and partly through the predominance of admissions over discharges and deaths. Even if we adopt the latter cause as sufficient in itself to account for the increase in the number of lunatics, and regard their accumulation as simply the result of life prolonged through improved treatment, it is difficult to see in this explanation any adequate reason for the constant extension of asylums. The question still remains: What have they accomplished towards diminishing insanity, either by repressing its growth or by promoting recovery? Of course, it is impossible to call in question the fact that a large proportion of the patients admitted into asylums are

restored to sanity. But this fact, nevertheless, leaves totally unsolved the problem, how far recovery is due to any special influence of asylum treatment, or simply to the recuperative powers which nature displays whenever the circumstances which produced the malady are removed or neutralised, wherever that may occur. It is a common argument in favour of asylum treatment, that recovery follows in a much higher ratio in the cases which are admitted in the earlier stages of the disease, than in those which are received after the malady has been for some time established. It cannot be denied that such is the case, and it is not impossible that the deduction, that recovery was due to removal to the asylum, may also be correct. But, it will be observed, this is an assumption in support of which it is very difficult to bring forward proof. Nobody can tell whether recovery would not equally have taken place had the patient not been sent to an asylum, and had simply those other means of treatment been adopted which are resorted to in many other maladies; such as a judicious administration of purgatives, tonics, or other drugs, with proper regulation of diet, and change of scene and surroundings. Again, when it is pointed out that recovery rarely follows the admission of chronic cases into asylums, it is impossible to doubt the fact. But when it is maintained that recovery would have followed had admission taken place at an earlier stage of the malady, we have here again an assumption which is beyond the power of proof. In admitting this assumption, we should be bound also to admit that all patients received into asylums in the early stages of insanity invariably recovered. But we know from experience that this is not the case. Even where there is no apparent organic lesion, where the malady manifests itself as simple excitement or depression, or where there is merely delusion without either excitement or depression, we find the malady not infrequently resisting treatment at however early a stage the patient may have been brought to the asylum.

Every one must admit that asylums, under the exigencies of modern social existence, are indispensable institutions. They meet a great want, and moreover, they meet it, as a rule, in an admirable manner. Therefore, I beg it may not be supposed that I am arguing in any way against either asylums or their management. My purpose is to point out what I consider to be the proper sphere of these establishments, and to warn against their unreasonable use. I have often in visiting them been inclined to question the propriety of detaining



certain patients. There was no question as to the existence of insanity, but there was, nevertheless, the doubt whether it was to such an extent as to necessitate continued detention. From the Superintendent being of opinion that such was the case, or from other difficulties in the way of discharge, the patient was left. At a future visit I have found him much more confirmed in his delusions, or more liable to excitement, or perhaps incoherent. This result, looked at from one point of view, would seem to confirm the propriety of detention, but from another it may be regarded as bearing out the doubt that was felt. One thing at all events was clear: asylum treatment had failed; whether treatment elsewhere would have been more successful must, of course, remain unknown; but it has always appeared to me very questionable reasoning to maintain the propriety of detention from its unsuccessful results. However, it is not uncommon to hear it asserted that even where asylums do not cure, they at all events improve and humanise. It cannot be denied that this is frequently the case; but, on the other hand, there is not wanting evidence to show that association with the insane has occasionally a degrading and deteriorating effect. Even in the best conducted asylum a patient cannot meet with the same distractions as in ordinary life. There is much in its routine which must tend to confirm the mental malady; and, on the other hand, there is much in ordinary life, in its changes of society, amusement, scenes, and circumstances, which help to lift the mind out of its diseased rut and to restore it to healthy action. I feel confident, so far as one can feel confidence in any such matter, that I have seen recovery take place from home treatment, when incurability would have followed removal to an asylum. The great advantages of asylum treatment are its convenience and its economy. Beyond the power of control which it confers, and the isolation which it facilitates, an asylum in itself possesses no special virtue; nor am I inclined to ascribe any particular influence to anything special in the treatment pursued in it. Beyond all question, experience must and does confer an aptitude in the mode of dealing with insane patients; but it has often occurred to me that medical men who devote themselves specially to the treatment of insanity injure themselves and the profession generally in the estimation of the public, when they maintain that some special or extraordinary genius, or some special or extraordinary attainments are necessary for the purpose. There cannot be a doubt that

the inspiration of genius, and the knowledge acquired from experience, will often point the way to successful treatment in specially difficult or obscure cases, but, as a rule, recovery from insanity is due far more to an adherence to the broad rules of hygiene than to any peculiarity in the treatment. In supplying abundance of food and clothing, in providing a comfortable lodging and bed, in giving proper attention to cleanliness, and in affording ample means of varied occupation and exercise in the open air, lies the great secret of the successful treatment of insanity. Purgatives, hypnotics, narcotics, and tonics are useful as auxiliaries; but a comfortable meal is the best of sedatives, and abundance of exercise the best of hypnotics.

If these views be correct, it follows that insanity is mainly the result of a deteriorated condition of the body generally, and not in any exclusive manner of the nervous system. I say *mainly*, for I do not call in question the fact, that certain forms of insanity are the direct result of the condition of the nervous system. Where insanity follows apoplexy, injuries of the head, tumours in the brain, sunstroke, &c., the mischief lies immediately in the nervous system; but such cases are exceptional, and are generally incurable from the organic alterations which have taken place in the brain. In insanity which is curable, on the other hand, the nervous system, as a rule, is only secondarily affected.

The chief progress which modern study and investigation have accomplished in medicine, lies in determining the nature of the structural changes which produce or accompany disease. Our knowledge of pathology has been greatly extended, but little or no success has, in consequence, been achieved in diminishing the ravages of disease. It may possibly be gratifying to the pride of the pathologist to feel that he can tell what morbid changes are proceeding in the body, and at what time they are likely to attain such an extent as to be incompatible with the continuance of life. But as yet this knowledge, although, I trust, preparing the way for great benefits hereafter, has not been productive of any important effect in diminishing the ravages of disease. This doctrine is, I am ready to grant, not quite in unison with the views of the profession generally, but I rest my opinion upon the evidence furnished by official returns. The rate of mortality has undergone no diminution in England and Wales since the Registrar-General commenced issuing his reports. In the three years, 1838-40, 23·30 deaths occurred

in every 1,000 males living, and 21·49 deaths in every 1,000 females. In the five years, 1861-65, these proportions were 23·86 for males, and 21·55 for females.\* In the single year 1838, there occurred 22·38 deaths for every 1,000 persons living of both sexes, and in the single year 1869, 22·63 deaths for every similar number. It may be objected to this comparison, that the two things compared are not alike; that the condition of the population of England and Wales in 1838 differed in many essential respects from the condition of the population of England and Wales in 1869, and that, but for these differences, the mortality would have undergone a material diminution. It has been ascertained that the population of the towns has increased in a much greater ratio than the population of the country; and as we know from experience, that towns are less favourable to health and longevity than the country, it may be argued that in the greater increase of the urban population we have an adequate explanation of the undiminished rate of mortality, without the humiliating admission, that medical science has made no perceptible progress in this direction during the last forty years. It is well known that the wealth of the country has enormously increased during the period in which the returns of the Registrar-General have been issued; and the effects of this increase are felt through every grade of society. The higher profits of trade, the higher rents of property, the higher dividends upon investments, have been accompanied by higher wages to the working classes; and the increased prosperity of the country has thus been shared in by all ranks of the community, with the exception perhaps of the very lowest class, which, from original defective organisation, or from utterly neglected training, has been unable to emerge from pauperism and its concomitant wretchedness. As a rule, wealth prolongs life, by giving the means of leisure, and the power of attaining comforts which otherwise must have been dispensed with. Statisticians tell us that annuitants, clergymen, and in short, all the well-to-do classes of society, live longer than petty shopkeepers and the working classes; and it is easy to understand why this should be the case. Therefore, we might naturally look for an increase of the wealth of the community being accompanied by a general prolongation of life. That this is not the case proves that wealth alone is not all that is wanted to secure health.

\* Thirty-second Annual Report of the Registrar-General, p. xxiii. *et seq.*

It has frequently been maintained, that insanity is, *par excellence*, a disease of civilised life; and the great increase of the insane during the present century has been cited in support of this opinion. The mental tear and wear necessary to fight the battle of life, and to maintain a position in society, is assumed as one main cause of this increase, and the alleged comparative freedom of savage races from mental aberration is quoted in confirmation of this view. But this question will not stand inquiry. The great increase in the numbers of the insane has not taken place among the upper and educated classes, but mainly among the lower orders. It is for pauper lunatics that the constant demand for increased accommodation is raised. *A priori*, then, it may be assumed, that it is not the over-straining of the powers of the mind that mainly tends to produce insanity, but those causes of physical disease to which the lower orders are chiefly exposed. Such are dissipation in its various forms, over-work of body, insufficient food, the respiration of a corrupted air, and the neglect of intellectual and moral culture. Instead of civilisation then being the cause of insanity, it is the want of civilisation which is at fault. No doubt, over-tension of the emotional faculties, the result of wounded pride, grief, remorse, or fear, is not infrequently the precursor and the apparent cause of mental disease: but even in such cases, the abnormal emotional excitement may frequently be traced back to physical maladies or hygienic neglect. It is true, that many of the upper classes also suffer from insanity; but here, again, it will be found on investigation, that the cause of the malady is very rarely the overstraining of the intellectual faculties. It may be, that emotional excitement is with them a more frequent cause of insanity than with the lower orders, but it will generally be manifest, that debasing practices, dissipation, bodily disease, hereditary predisposition, sunstroke, accidents, or thorough neglect of the most common rules of health are here also at the root of the evil. In fact, there is no disease less likely to supervene in a healthy constitution than insanity. The nervous tissue is less exposed to undergo change from ordinary influences than any of the other tissues of the body, and in this fact lies at once the cause of the stable nature of the mental manifestations, and the reason why a brain once materially affected in its organic structure generally remains impaired for life. In his experiments on Inanition, Chossat found that when a warm-blooded animal is starved to death, the brain and spinal cord lose only 0.019 of their original

substance; while the corresponding loss of the fat is 0·933; of the blood, 0·750; of the muscular system, 0·423; of the organs of respiration, 0·222; and of the bones, 0·167. Hence, when the normal nutrition of a body that has been simply weakened by disease or by starvation, is again restored, the nervous system speedily regains its natural powers. If the nervous tissues were as liable to be affected by those influences which tell upon the condition of the muscular and adipose tissues, no man could reckon upon his sanity from one day to another. It is the fixity of the nervous tissue which gives fixity of intellectual power and moral character. But the constitution of the nervous tissue is nevertheless not beyond the reach of change. As life advances, its nutrition is affected, and its action occasionally becomes weakened or disturbed to such an extent as to produce senile insanity. In earlier life, the prolonged supply of blood, contaminated with alcohol, opium, or the poison of typhus, may so affect its nutrition, or injure its texture, as to render it incapable to resume its healthy functions, and incurable insanity is thus established. The same result may ensue from alterations in the blood consequent on disease of the kidneys; or on the phthisical diathesis. Disease of the heart, and the condition of pregnancy, are other well-known causes of insanity, from the changes which they effect in the force of the circulation, or in the qualities of the blood. It is no doubt difficult to tell why such a cause as pregnancy should produce insanity in one woman and not in another. Something may depend upon the original constitution of the nervous system; or something upon the manner in which the gravid uterus presses upon the blood-vessels, or otherwise interferes with the nutrition of the brain. In the insanity of lactation, it is the impoverished quality of the blood that is the immediate instigator of the mental aberration. In other cases, insanity appears to be due to the reflex action on the brain of the irritation of some distant organ, such as the uterus; but the *modus operandi* in which this is effected is beyond our present knowledge to explain. Nor is this to be wondered at, for our acquaintance with the normal functions of the brain is still of the most meagre kind. Phrenology has, it is true, attempted to solve the question upon what conditions of cerebral structure and development the operation of the various mental faculties is dependent, but the doctrines of the phrenologist still await the co-operation of the anatomist and physiologist to give them confirmation. Nevertheless,

the absence of this confirmation is far from proving the doctrines to be erroneous. No anatomist or physiologist is now of opinion that the brain constitutes one homogeneous organ, the general function of which is the manifestation of mind. On the contrary, the belief is universal, that different portions of the encephalic mass subserve different functions. This belief is capable of being supported by direct proof, when the functions subserved are those of the senses. We can judge when an animal ceases to see, to hear, to smell, or to feel pain, but there is no outward test by which we can form an opinion, whether interference with certain structures has impaired the feeling of benevolence, veneration, or self esteem, or destroyed the power of noting the qualities of objects. Apart from the procedure adopted by phrenologists, it is difficult to see how it is possible to obtain a knowledge of the normal functions of the brain. A little may be learned from pathology, as when disease in the frontal lobe is accompanied by aphasia; but in what manner shall we ascertain whether the natural quantity of the self-esteem or benevolence possessed by a man has been increased or diminished by disease? Besides, it has to be kept in view, that the manifestations of the mind are greatly influenced by the quality of the blood which flows through the brain. When contaminated with alcohol it produces in some a feeling of gaiety and pleasure, and excites in others violent and destructive propensities.

It is, I think, from not sufficiently keeping in view the reciprocal action of the blood and of the brain in the production of the mental manifestations, that physicians, and more especially the physicians of asylums, have looked with distrust upon the claims of phrenology to be reckoned as the handmaid of psychology. If the air which we breathe is unduly mixed with carbonic acid or loaded with impurities, the lungs cannot fulfil the function of maintaining the blood in a state fit for the manifestation of normal physical action. We do not, however, on this account call in question the functions of the lungs. Neither, therefore, should we be led from diseased mental manifestations, to reject the phrenological doctrine which ascribes certain functions to certain portions of the cerebral hemispheres. It is only by a faithful and prolonged study of the development of the cerebral convolutions in healthy constitutions, and a comparison of their volume with the mental characteristics which were manifested in life, that the doctrines of phrenology can be fairly tested. At the same time, it is not impossible that chemistry or the microscope

may hereafter reveal such differences in the composition or structure of the cerebral mass, or of its different portions, as would sufficiently account for different degrees and different kinds of mental power being manifested by brains of like form and size.

From the reasons which have been stated, it will be apparent that insanity, unless in exceptional cases, cannot be regarded as a mere local disease of the brain. The functions of this organ are no doubt disturbed, but it would be as irrational to be guided by this symptom alone in the treatment, as it would be to regard the delirium of drunkenness or fever as the indication by which our efforts should be guided. It, however, occasionally happens that insanity is present where we can detect no symptom of bodily disease. This occurs, for instance, in cases of delusion where a man fancies himself a king or a prophet. All the bodily functions are normally performed, and the existence of the delusion does not seem greatly, if at all, to interfere with the duration of life. But the delusion has, nevertheless, had its origin in some departure from healthy action either in the person of the patient himself or of some of his ancestors. I am aware this is but a loose way of arguing, but it is not an easy matter to trace the growth and confirmation of a delusion. It appears to me, however, that not unfrequently it may be established precisely in the same manner as belief in witchcraft was established in former ages, or as belief in spirit rapping or in certain religious dogmas, is established at the present time. A man who has been educated in the Mahometan faith clings to the belief that Mahomet was a prophet, and no arguments are capable of changing his views. His ideas are as it were stereotyped. The brain has received an impression which it is impossible to efface, and he continues a Mahometan till the day of his death. In the same way, when a delusion has once got possession of a man's mind, extreme difficulty is frequently experienced in displacing it, and this difficulty becomes all the greater the longer it is left undisturbed. But here success in treatment does not arise from arguing with the patient against the delusion, but from improving his bodily health. As his physical condition improves his mind gathers strength, and the delusion disappears as the power of correctly estimating the relations of things to each other is regained. I must not, however, be understood as maintaining that a mistaken belief and a delusion are identical. My remarks point merely to the process by which each becomes fixed in the mind. But

although we think we are aware of an essential difference between a mistaken belief and an insane delusion, it is not always easy to draw a distinct line between them. For instance, what was originally an insane delusion—as in many so-called prophets, perhaps in Mahomet himself—becomes simply a mistaken belief in their followers. In such cases, where does the delusion end and the mistaken belief begin? Already in the prophet, or only in his disciples?

But if, as I have endeavoured to show, insanity in all its phases is a malady which has its origin in some form or other of bodily disease, the importance of preserving the health of the body as its main preventive becomes at once apparent. And it is in this direction, I am persuaded, that we must look for the means of checking its growth. Under the existing system, superintendents of asylums, it appears to me, only partially fulfil the high duties which come within the sphere of their calling. They receive under their care the blighted beings whom ignorance, neglect, poverty, and mismanagement have allowed to drift into insanity, and they do their best to repair the evil which has thus been engendered. But there is a painful analogy between the position of the superintendent of an asylum and that of the governor of a jail. For although we strive to persuade ourselves that a lunatic asylum is a place of treatment and refuge for those stricken of God, yet, if there be any truth in the doctrines of sanitary reformers, all disease, including insanity, results, in an immense number of cases, from our own culpable neglect. This is the case also with crime. Our criminal population is, to a large extent, the result of the neglect of moral and industrial training; and where this is not the case—where crime is the consequence of an original defective organisation, the line which separates it from insanity is artificial and unreal. In a sense, then, both asylums and jails are the antidotes which the State has provided to neutralise the effects of its neglect. The main difference between them lies in this, that in the former the evil is sought to be cured by treatment directed towards strengthening and improving the instrument through which the deeds done in the flesh are manifested; while in the latter the first object is to punish the instrument, and the second to reform it, but still by punishment. Formerly, asylums were even more places of punishment than jails now are. The patients were whipped, and otherwise brutally treated; but although a more humane and more rational system has been adopted in their management, it would in



many cases be difficult to show good grounds for the practice of extending to asylum inmates benefits and indulgences which are withheld from the inmates of prisons.

It is a matter of extreme difficulty to determine where sanity ends and insanity begins ; and it is remarkable that, although it is generally considered to be the duty of the physician to fix that point, it is, nevertheless, the lawyer who decides the question whenever anything more than the mere liberty of the patient is involved. In fact, the lawyer then sits in judgment on the physician, and determines, or directs the jury to determine, whether the acts of the patient, as observed and reported by the physician, afford proof of sanity or insanity.

In deciding the question of soundness or unsoundness of mind, it is necessary to take into account the previous history and education of the patient. For instance, under certain circumstances, as we have seen, a belief is a delusion ; under certain other circumstances it is a religious dogma. A Christian does not believe in Mahometan or Hindoo miracles, but neither does a Mahometan or Hindoo believe in Christian miracles. Still, neither is the Christian, the Mahometan, nor the Hindoo to be accounted insane for believing what the others hold to be error. If, however, a Christian woman were to consider it her duty to be burnt alive on the funeral pile of her husband, we should at once come to the conclusion that she was insane. Facts of this kind show how susceptible the human mind is of receiving impressions of a persistent and indelible kind either for good or evil during the period of growth. It is a well-known axiom that the reformation of criminals is almost hopeless after adult age has been attained ; and for this obvious reason, that the mind has been allowed to acquire certain fixed habits of thought which cannot afterwards be overcome. As a rule, a man becomes a Christian, or the member of some particular Christian sect, not from conviction founded on inquiry, but simply because he was brought up in the society of members of the faith to which he adheres. Hence the great importance which every Church and every sect attach to the religious training of the young. The doctrines taught are without question accepted as truth, and a crop of fresh adherents is thus produced to propagate in their turn the peculiar views in which they were trained.

It seems to me that in the principle to which I have been alluding lies the main chance of our being able to do anything to diminish lunacy. Whether the doctrines of the phrenologists be true or false in respect of the localisation of the

different mental faculties, there can be no question as to the existence of different mental powers, and in different degrees of strength. Some men possess certain talents developed in a much higher degree than others, and are, accordingly, remarkable for a special proficiency in music, painting, engineering, &c.; while others, again, are distinguished above their fellows for deeper moral feelings, or are sunk beneath them by irresistible animal propensities. There can be no doubt, then, of the compound nature of the human mind; nor can it be doubted, from what occurs in religious training, how very much the mind is capable of being moulded or deflected by the circumstances in which the individual is placed. Hitherto we, as medico-psychologists, have, in my opinion, occupied a position too nearly approaching to what may be termed that of the justifiers of the law. We allow evil to grow up; and when it has reached the point which necessitates the withdrawal of the offender from society, we assume the functions of jailers; or, if this term is offensive, of reformers or curers. In speaking of offenders I do not mean to imply that an insane patient has committed an offence against any statutory law; but I believe that, as a very general rule, an offence has been committed against the *natural* laws, either by himself or by his progenitors. This offence, however, is frequently committed in ignorance, and, so far as ignorance is an excuse, in innocence. But I hold that such ignorance, if pardonable in the individual sufferer, is most culpable in the nation which provides for its children an education in which the cultivation of many of the most important faculties with which we have been endowed is almost entirely neglected. Formerly, a man who had failed in every other calling too often still thought himself good enough to undertake the duties of teacher; and even now it is seldom that our schoolmasters have any acquaintance with the physical, intellectual, or moral organisation of the being intrusted to their care. Education, even in our best schools, is as a rule limited to intellectual training of a very partial kind, while moral and physical training receive scarcely any attention. No pains are taken to show how pure enjoyment may be found in the innumerable sources of pleasure and recreation which surround us; and the consequence is, that when the age of puberty is attained, it is too frequently found that no adequate moral barrier has been raised against the fierce onset of the passions. It has been often remarked that of the sons of the Scotch clergy, a proportion considerably above what is found in other classes of society, become

noted for dissipated lives ; and this fact, which I fear cannot be disputed, leads to the inference that strict religious training—such training as is comprehended in a mere knowledge of the doctrines of the Shorter Catechism—is not sufficient to ensure satisfactory results. Nor is this to be wondered at. The teaching of religious dogmas is something altogether apart from the cultivation of the moral faculties. Dogmas may point out the way to salvation, but they do little or nothing to incline our hearts to keep the moral laws. If then, even among the so-called educated classes of society, the evil effects of an education which neglects moral and physical training, show themselves in broken bodily health, in dissipation, and in insanity, how much more prevalent must such evils be among the lower orders, whose education hitherto has been in almost all respects exceedingly neglected ? It is not too much to say, that to large numbers of the working-classes of this country the main, if not the sole, source of enjoyment and recreation is comprehended in the pleasures of the public-house ; and to what manifold evils this inability to derive pleasure from higher sources leads, the medical profession best can tell.

I have stated in the earlier portion of this address that the vast increase of insanity has taken place principally among the lower orders of society, and have shown that the provision of asylums has done nothing whatever to stem the evil. The drift of my observations has been to draw attention to the desirability of entering upon another course, and, instead of waiting till insanity has been produced and then expending our energies in attempts to cure it, to show the importance of stepping in before the mischief has been accomplished. We cannot fail to recognise the evils of the present system. We have an ever-growing number of lunatics, and an ever-growing tax upon the resources of the nation for their support. How much better would it be to spend the money which is required for the maintenance of thousands of useless beings, in preserving their health and enabling them to take their share in the labours, duties, and pleasures of life ! This is a reform which is not to be wrought in a day, for the sources of the evil lie in the ignorance which pervades every portion of society. The medical profession alone are trained in a knowledge of the structure and functions of the human frame ; but even their education is frequently very imperfect, especially as regards the preservation of health. It is in mental hygiene, however, that this deficiency is most apparent.

Students are taught the functions of the spinal cord and of the sensory ganglia, but I know of no school of medicine in which any serious attempt is made to impart a knowledge of the functions of the different portions of the cerebral hemispheres. Yet it is undoubtedly upon the cerebral hemispheres that man's super-eminent position depends. I have already admitted the difficulties that lie in the way of localising the different mental powers, and associating them with different portions of the brain; but this knowledge, although of great importance, is fortunately not essential for the practical application of mental hygiene. We know that the mental powers are there, we know that they are linked with, and dependent on, certain cerebral structures, we know from experience that they follow certain laws, and although doubts may remain as to the particular structures with which particular powers are associated, our ignorance on this point leaves unaffected the general doctrine that cerebral structure and cerebral nutrition determine mental action. This is a lesson which should be taught not only in our universities, but in every school of the kingdom. The small success which has hitherto attended the efforts of sanitary science has its origin in the ignorance of the people. To preach of the necessity of exercise and of ventilation to a man who has no knowledge of the laws of respiration, who is ignorant of the constitution of the atmosphere, who does not know what is meant by breathing impure air, is to waste time and argument to no purpose. He has not the capacity to profit by what he is told, although the telling may be reiterated a thousand times. Therefore, it is not sufficient that there should be a class of men educated in a knowledge of sanitary science to act as guides to the common herd, but every member of the common herd should be taught in what manner and on what grounds his conduct should be regulated in order to preserve his health, and to enable him to do his duty towards himself and his neighbours in his day and generation. What does it signify to a man who is suffering from consumption, from insanity, or fever, or who, in good health himself, has seen his children carried off one after another in childhood or in youth, to know that Romulus founded Rome, that Troy fell after a ten years' siege, that Jupiter was the king of the gods, and Minerva the goddess of wisdom? Such knowledge is not to be contemned, but why should the far more important knowledge, which would qualify every man to be the guardian of his own bodily and mental health, be despised and

neglected? The only reason that can account for this result is the ignorance of the teachers themselves of the vastly superior importance of hygienic training.

It is too much the fashion of the day to seek to regulate the conduct of the people by legislative enactments. In a great variety of ways the liberty of the subject is curtailed by statute, in the hope of counteracting evil habits and promoting virtuous conduct. Thus, with the view of checking drunkenness, it is forbidden to keep public-houses open after certain hours; and in Scotland, no one who is not what is called a *bona fide* traveller, can obtain refreshment of any kind in any house of public entertainment on Sundays. But in spite of all such enactments we find lunacy, drunkenness, pauperism, and crime undergoing no diminution. On the contrary, drunkenness has now attained such development that a Committee of the House of Commons has recently recommended the establishment of sanatoria or reformatories, for the forcible detention and treatment of those habitually addicted to this vice. But why should those, for whose benefit such institutions are proposed, not be made as capable of taking care of themselves as the Members of the Committee of the House of Commons, from whom this proposal emanates? Within the last fifty years an immense improvement has taken place in the habits of the upper classes of society; not, however, in consequence of penal legislation, but simply from their higher mental culture and the wider field of enjoyment which has thus been opened up to them. Then why should we not try a similar remedy with the lower classes? We have no statistical information as to the number of habitual drunkards among the upper classes; but, judging from analogy, it must be small in comparison with what is found among the lower. In all England, at 1st January, 1871, there were only 6110 insane persons supported from private sources in a population of 22,704,108; against 50,185 supported by parochial rates. No fact can speak more strongly in favour of the efficacy of mental culture in warding off insanity. After making full allowance for the pauperising influence of the malady, by reckoning at a quarter of the population the classes from which pauper lunatics are drawn, the number of private patients which I have quoted gives in the remaining three-fourths a proportion of 1,000 lunatics in every 2,785,000 inhabitants; or but one in 2,785, instead of one in 113, which would be the result if the calculation were extended to paupers on the basis indicated. There is little doubt that at least as great a

difference would be found in the proportion of drunkards among the upper and lower classes; and the inference would accordingly be that we should strive to overcome the evil not by the establishment of reformatories, but by measures of prevention. It cannot be denied that the vice of drunkenness is met with occasionally in persons of high intellectual cultivation, but I believe that in such cases the origin of the mischief may generally be traced to disease originating in hygienic neglect.

It is readily admitted, as a general truth, that health is the greatest blessing man can enjoy on this earth, and that without health all else is "stale, flat, and unprofitable." But it seems to be imagined that the wonderfully complex organism of the human body is capable of adapting itself to whatever circumstances it may happen to be placed in, without any intelligent guidance from its owner. We have, it is true, a special class, that of medical men, whose duty it is to watch over the health of the community and to cure their diseases; but, as a rule, their functions are limited to the restoration of health after it has been lost, and not to its preservation. A small portion of this class, I admit, undertakes the special work of the prevention of disease, and for this end has laid down rules for securing proper drainage and ventilation, for guarding against overcrowding, for limiting the hours of labour, for regulating public-houses, &c.; but our statistics tell us without, as yet, having achieved any perceptible beneficial results. Neither do the Reports of the Registrar-General show any diminution in the rate of mortality, nor do those of the Commissioners in Lunacy show any decrease in the occurrence of insanity. And why should this be so? Simply, I believe, because the community has not been trained in a knowledge of the human organism, and of the laws which determine its welfare. Ignorance of such knowledge has an all-pervading influence. It affects the proceedings of the Legislature, of the clergy, and of teachers, and, through their instrumentality, the conduct and behaviour of the whole community. In the first place, the complex nature of the human mind is overlooked; education is too much restricted to the cultivation of the intellectual faculties, and even their training is, as a rule, only partial and imperfect. In the second place, moral training may be said to be almost entirely neglected; and the same remark is applicable to physical training. We all know from experience that pleasure is found in the exercise of our faculties. A knowledge

of geology, botany, chemistry, astronomy, music, literature, or the fine arts, opens up in each of these departments a vast source of mental occupation and enjoyment. Without such knowledge every man would be so much the less capable of occupying and enjoying himself, and would be driven to fall back on such other means of gratifying his inclinations as were in his capacity of enjoyment. Now, we are so framed that our animal propensities require no special training to prepare them for this purpose. The habit of indulgence in intemperance or in vice may acquire strength with what it feeds on, but we are so formed that the most ignorant man is fitted to embark at once in a vicious career, and he is all the more ready to do so on account of his very ignorance, and his consequent inability to find enjoyment in the exercise of his higher faculties. Moral training, even when there has been a neglect of intellectual cultivation, may bar the way to vicious indulgence, but, unfortunately, moral training is too often limited to the mere repetition by rote of the Shorter Catechism or of the Ten Commandments. Such training, it appears to me, should comprehend an exposition of the duty of man towards God, towards his neighbour, and towards the lower animals. The duty of man towards God cannot easily, in the present day, be learned from the clergy, for the clergy have, unfortunately, adopted a conventional language which conveys no meaning to the great mass of the people. The consequence is that few of the lower orders, especially of those which inhabit the wynds and closes of our large towns, ever attend church. Those of the upper and middle ranks, and of the better class of artisans, operatives, and labourers who do so, are actuated more by a feeling of duty—in many cases, I fear, more by a feeling of superstition—than by any expectation of benefit or improvement; for, as a rule, they have to listen to a wearisome, never-ending exposition of obscure doctrinal points which have no influence on their everyday conduct. What fills the churches of popular preachers, such as Spurgeon, but the use of language which the people can understand? If the clergy would condescend to follow this example and appeal to the intellectual and moral faculties of their congregations in common language, and to deal with such topics as the duties and rights of each man in his respective social position, an interest might be awakened by their preaching that would attract hearers from all classes, and exercise an extensive beneficial influence on the culture of the people. Their discourses would thus

include an exposition of the wonders of creation; of the duty of parents towards children, and of children towards parents; of masters towards servants, and of servants towards masters; of employers towards their work-people, and of the workpeople towards their employers. The object and operation of the statutory enactments for the relief of poverty, the prevention of disease, and the restoration of bodily and mental health,—the rights which they confer, and the duties which they involve,—would likewise form appropriate subjects for exposition, as would also the moral obligation of treating the lower animals with that kindness and consideration which is their due as part of God's creation, and as rightful sharers in the blessings which He has showered upon this earth.

The neglect of physical training is almost universal, and even where it is attempted, it is calculated to do perhaps more harm than good. If, instead of the fanciful exercises which, under the name of gymnastics, receive a small share of attention in some schools, a system of modified army drill were introduced, not only would the development of the body be beneficially directed and improved, but useful knowledge in the manipulation of arms would be imparted, and a liking instilled for martial and manly exercises which, in after years, would tend to bring the different classes of society together upon common ground, and would go far to add to our security as a nation.

My doctrine then is, gentlemen, that insanity, so far from being a disease of civilisation, is a disease of ignorance, and that the only way in which its extension can be checked is by imparting to every man a knowledge of the structure of his own body, and of the relations in which he stands to the moral and physical world around him. I have already stated my opinion that our special branch of the medical profession has hitherto not fulfilled the utmost good that it is capable of accomplishing. We possess the best means of fully estimating the immense amount of evil that results from neglected bodily and mental training, but our efforts have hitherto been too much restricted to providing a remedy for it by asylum treatment. Of the manner in which this remedy has been applied I can speak only in terms of the highest admiration. In no country in the world does the condition of lunatic asylums surpass—I might, I think, fairly say equal—that of the asylums of the United Kingdom; and the very greatest credit is accordingly due to their superintendents for the intelligence, zeal, and perseverance which they have brought



to the fulfilment of their important duties. But I am ambitious to see them exercising their great and legitimate influence in their respective districts, by pointing out how mind depends on matter, and how insanity is but the expression of a faulty physical constitution, having its origin in causes which we may readily trace, and which are in a great measure under our control. There is much that is hopeful for the progress of the people in the present movement among the working classes for increased wages and shorter hours of labour, but until their sources of enjoyment have been extended by the wider cultivation of their intellectual and moral faculties, there is only too much reason to fear that increase of wages and increase of leisure, instead of promoting their higher civilization, will merely afford the means of increased indulgence to their animal propensities.

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*On the Classification and Prognosis of Idiocy.* By W. W. IRELAND, M.D., Medical Superintendent of the Scottish National Institution for the Education of Imbecile Children, Larbert by Falkirk.

(Read at a Quarterly Meeting of the Medico-Psychological Association, held at Glasgow, 9th May, 1872.)

*The Classification and Prognosis of Idiocy.*

There always must be some awkwardness about the classification of insanity. It is regarded as aberration of function of the nervous centres, the result of a number of nervous diseases. The physician who wishes to have a proper knowledge of insanity from a medical point of view must study the pathological conditions of which it is the symptom or the result, and when he has done so it is impossible for him to disconnect one series of observations from the other—the mental aberration from the accompanying disease of tissue or pathological symptoms. Insanity is, therefore, an irregular segment of a circle, of the totality of which it forms a part. It can neither be viewed alone nor can it, from its great importance, be regarded as merely a symptom of various nervous diseases, especially when most of these diseases may run their course without its manifestation. Thus we have

epileptic or paralytic insanity, although we may have epilepsy or paralysis without any lasting mental disorder.

At any rate it would be very inconvenient for us to want a classification of insanity founded upon pathology and etiology. Nor is it a fair objection to such classifications that they are in the present state of pathology imperfect, and in part, at least, likely to be swept away by the advance of pathology; for no one acquainted with the history of medicine will affirm that imperfect nosologies have been of no use. On the other hand it would be very inconvenient to dispense entirely with psychical divisions of insanity. The insane are deprived of their liberty and collected in Asylums on account of their psychical deficiencies and aberrations, and it is evident that the character of such deficiencies will always be important, both to society at large and to those who have the charge of them. If our classifications, psychical and pathological, approached completeness, they would bear an understood relation to one another. If we were to consider the deficiencies of an optical instrument like a microscope, we could describe them in two ways. We might say that objects were seen through it in colours which did not properly belong to them, or that their shapes were ill defined, or that they were seen dimly, with too little light. In this way we indicate the faults of the instrument by describing their effects upon the eye of the observer. On the other hand we could describe these faults directly; we could explain how, owing to imperfection in the shaping of the glasses, the lenses failed to bring all the rays of light into one focus, *i.e.*, spherical aberration; or that, owing to the nature of the glasses, unequal refraction of the rays took place, *i.e.*, chromatic aberration; or, owing to want of due transparency, or to the glasses being soiled, enough of light did not pass through. The one class of explanations would represent the psychical classification, the mind standing in the same relation to the organism as the eye does to the microscope. The other would represent the pathological classification. As our knowledge of the physiology of the brain is something very far behind our knowledge of the laws of light and optics, we are not nearly so successful in bringing the psychical and physiological systems into accord.

Idiocy and imbecility have usually been regarded by writers on insanity as pathological generalizations incapable of further sub-division. It is singular that those who object so strenuously to merely psychical divisions of insanity, such as

mania or melancholia, and have formed a classification founded upon pathology or etiology, should not have noticed that idiocy or imbecility are purely mental classifications; in short, that they are other names for psychical deficiency commencing in early life. Nevertheless, this mental deficiency comprehends cases quite distinct in their etiology, pathology, and treatment, which, however, unite to produce the deficiency of intellectual, nervous, and muscular power.

As the mental deficiency is the most serious of the symptoms or consequences of the diseased condition, it is of great importance that the degree of mental feebleness should be defined. Hence the necessity of psychical definitions such as the popular ones of idiot, imbecile, and feeble-minded, indicating three degrees of mental obtuseness, as well as the classification of Esquirol, founded upon the degree in which speech is exercised. Moreover, since it is impossible, from the other symptoms, to arrive at anything like an exact conclusion as to the extent of the diseased action, the mental faculties still spared are of great value in examining an idiot with a view to prognosis and treatment. At the same time any one who trusted to mental symptoms alone would fall into grievous errors; for example, it would be incorrect to give the same prognosis for an epileptic as for a traumatic idiot from the degree of intelligence left. In the one case we have an existing disease still likely to cause further mischief; in the other we have a lesion come and gone, whose unfortunate effects may be expected to diminish through time.

In short, all kinds of idiocy have not the same future, nor ought to be treated in the same way. To group them all together is as absurd as to go on measuring the heads of microcephalic and hydrocephalic idiots, and to generalize the results into one useless average.

The only way to prove the worth of our classification is to exhibit the general characteristics of the different groups of idiocy, and to show in what respect they differ from one another; and this, not wishing to trespass too long on your attention, I shall proceed at once to do.

Idiocy may be divided as a rudimentary arrangement into ten groups or classes:—

1. Hydrocephalic idiocy.
2. Eclampsic idiocy.
3. Epileptic idiocy.
4. Paralytic idiocy.
5. Inflammatory idiocy.

6. Traumatic idiocy.
7. Microcephalic idiocy.
8. Congenital idiocy.
9. Cretinism.
10. Idiocy by deprivation—that is, by the loss of two or more of the senses.

### *Hydrocephalic Idiocy.*

I have collected twelve cases of hydrocephalic idiocy, in all of which the symptoms were very carefully studied. The head was generally enlarged, but in no case had a larger circumference than 24 inches (61 centimetres). In these cases the head, looked at from above, has the well-known shape of chronic hydrocephalus.

The occiput is sometimes flattened; but the palate is not vaulted, as is so common with congenital idiots. There is often dullness of touch, and deafness at one period or other of the disease is not an uncommon symptom. It was noted in four cases out of twelve (or in five out of fourteen, if we include two more doubtful cases), and in two of the cases hearing had returned.\* This deafness is probably owing to lateral expansion of the bones of the cranium, or the increase of fluid between the brain and meatus auditorius internus, causing stretching of the portio mollis.

In some cases in which hydrocephalus had been observed in infancy, the head was of the usual size for a child of the same age. In one case, which I saw at the Stirling District Asylum, the disease was only ascertained after death, the head being of normal size. Seven ounces of fluid were found in the lateral ventricles, and two ounces in the arachnoid. Apparently when the hydrocephalus ceases to progress, this class of idiots are left with a considerable capacity for improvement. Some have been taught to work, others to sew and read. The prognosis is graver when convulsions have supervened on the original malady. One patient who is recorded to have had fits at teething, which returned at four years old, and who has the hydrocephalic character of head, lost his hearing about two years ago. He has now been taught a number of figurative signs and also to spell on his fingers, and although he has the additional disadvantage of

\* On the connection between hydrocephalus and deafness, see "Diseases of the ear," by John Nottingham, Surgeon to the Southern Hospital, Consulting Surgeon to the Eye and Ear Institution, Liverpool. London, 1857, pp. 498-500.

obscurity of sight, having dimness of the cornea resulting from ophthalmia, his progress has been as well marked as that of any pupil in the establishment.

A few months ago I was introduced to the governess of a deaf and dumb school, who had a well-marked hydrocephalic head. She was quite deaf, but the nature of her duties is a sufficient proof that she had retained more than average mental vigour.

It will be readily believed that hydrocephalic idiots have got larger heads than other idiots, and, indeed, where the head appears to be unusually large, hydrocephalus may be shrewdly suspected. On the other hand, as already remarked, a normal, or even a small head, is no proof that hydrocephalus has not existed in infancy. Advancing chronic hydrocephalus may lead to total amentia without being directly fatal. Some instances of this kind are given by Esquirol, with his usual judgment in details and felicity of expression.\* On the other hand, a very large quantity of fluid can accumulate in cases of chronic hydrocephalus without destroying the functional power of the brain.† A case has been recorded by Monro of a boy of eight years old, who preserved his memory although the head measured 2 feet 4 inches in circumference. There is also the well-known case of Cardinal, who lived till 30 years. From seven to eight pints of water were found within the cranium, the brain being collected at the base of the skull.

### *Eclampsic Idiocy.*

Under the head of Eclampsic are arranged those cases where idiocy has been the sequela of convulsions in early childhood, generally at teething. Convulsions at teething is one of the most frequent of the assigned causes of idiocy.‡

These convulsions may occur before teething, sometimes a

\* "Des Maladies Mentales," Tome Second, Paris, 1838, pp. 326-329.

† "Die Pathologie und Therapie der Gehirnkrankheiten von Dr. Rud Leubuscher," Berlin, 1854, p. 402. Professor Albers, of Bonn, in a paper "Ueber Die mit Wasserkopf verbundene Irrenseinform" distinguishes two kinds of chronic hydrocephalus—one where the effusion is in the lateral ventricles, the other where it is in the arachnoid sac. Dr. Albers finds that mental obtuseness and paralysis are the distinctive symptoms of the one, restlessness and mental derangement are characteristic of the other. See the "Allgemeine Zeitschrift für Psychiatrie, Band" xxii., Berlin, 1865, p. 110.

‡ In a note which Dr. Shuttleworth, of the Royal Albert Asylum, made while Assistant-Physician at Earlswood, 14 per cent. of the cases of idiocy were ascribed as originating from convulsions at teething, injuries to the head at child-birth standing no higher than 6 per cent.

few days after birth, possibly owing to some injury to the head during labour. It even happens that they do not return with dentition. Although such eclampsic seizures are a common cause of idiocy, it would be a great mistake to imagine that they commonly cause idiocy. In the great majority of cases the convulsions pass away, leaving no trace of their occurrence upon the nervous system of the child. Thus, amongst a large number of children who had convulsions at teething only a few would be idiots; but amongst a number of idiots a considerable proportion would have convulsions at teething.

We may infer that there must be something unusual in the impressibility of the nervous system of the children who thus become idiotic. There is little doubt that they are born with a predisposition to take convulsions, which either manifests itself soon after birth, or waits the first exciting cause, and this generally is the commencement of dentition.

In one of the thirteen cases which we have collected the eldest brother was also idiotic, and from the same cause as the younger. As his father expressed it, he had one or two fits at every new tooth. The parents were cousins.

I do not here enter upon the question—What is the lesion which in these cases leaves idiocy behind?\*

Whatever it may be, the prognosis is bad. Though the power of muscular motion as well as the tactile sensibility is generally well preserved, and special sense does not appear to be injured, the intelligence is in a great degree destroyed, and the child remains, comparatively speaking, uneducable. He can be taught more readily to work than to think. Of the thirteen cases studied, six could be taught to work a little with their hands; in other things they were of comparatively inferior intelligence. In two the grasp was deficient. In one of these cases the pupil was prevented by imperfect power and sensibility in the hands from learning to work properly, though she was willing and docile, could learn to read a little, and possessed, comparatively speaking, a considerable amount of intelligence. Eight of our eclampsic cases were mutes, or nearly so, and three articulated imperfectly; thus, only two could speak correctly. But of these two one was a very educable case, a girl who was believed to have been born at the full time, and with neither difficulty nor accident. The fits occurred when she was six weeks old,

\* On this point, see "*Trousseau Clinique Medicale*," Tome ii., pp. 163-4.

and were accompanied with febrile action. Her life was despaired of, but the fits passed away entirely, and did not return with dentition. She was a weakly and delicate child, but is now healthy, strong, and active. She entered the institution at fourteen years of age (September, 1870). She made slow progress in learning to read, but great progress in learning to work. She can fill brushes quicker than any of the pupils, and is good at sewing, knitting, and household work. There has also been a great improvement in general intelligence.

### *Epileptic Idiocy.*

Cases of idiocy complicated with epilepsy have appeared so little promising that they are excluded from the gratuitous benefits of all training schools both in Great Britain and America. At the same time this unfortunate class has found its advocates. Dr. W. A. F. Browne, in his lecture on Epileptic Mania, has the following suggestive remark:—"Deeply interested in this branch of our subject, and having observed that a high authority, M. Parchappe, declared that ten individuals had been discharged from Bicêtre recovered from idiocy, I some years ago proceeded to France to see and examine these creations of our art. My mission was unsuccessful. I could not trace these convalescents to the loom, the plough, or the vineyard; I could not obtain accurate information as to the amount of capacity and enlightenment attained. But it was not fruitless, for these researches brought to light what may be ranked as a discovery, that whatever the benefits conferred might be, the triumph had been achieved chiefly in the class of epileptic idiots; that certain of those discharged belonged to this class, and that the steps and *rationale* of the achievement consisted in the cure or removal, or mitigation of the epilepsy, and the subsequent evolution—whether spontaneous or artificial—matters little, of comparative lucidity and educability. It is unnecessary to insist upon this additional illustration of idiocy being a disease which is to be cured, not merely an embryo faculty to be developed. You can understand why, on finding corroboration of these observations in this country, I have since held the heresy that epileptic idiots are as favourable subjects for training as other idiots, if not more so.\*

For my part, while allowing great weight to the judgment

\* "Journal of Mental Science," vol. xi., p. 352.

and experience of Dr. Browne, I should like very decided evidence that eccentric or sympathetic irritation of a removable character exciting epilepsy becomes the cause of idiocy or imbecility in a sufficient proportion of cases to warrant our regarding a cure of the epilepsy with subsequent cure or removal of the idiocy as an occurrence within the bounds of reasonable probability. Whatever may be the cause of the epilepsy, its association with idiocy leads, in my mind, to the presumption that a lesion has been produced in the brain and spinal cord not likely ever to be effaced.

Dr. Wilbur,\* the Medical Superintendent of the New York School for Idiots, at Syracuse, who is deservedly an authority on such points, remarks:—

“In certain classes of cases, however, there will not be much difficulty in deciding to exclude the parties for whose admission to the asylum application is made.

“Cases of idiocy accompanied with confirmed epilepsy are to be reckoned among these. The presence of the two conjoined (which ever manifestation precedes the other) usually indicates the existence of a common cause in organic disease of the brain or spinal cord. In such instances the epilepsy is generally incurable. Each recurring paroxysm impairs the more the intellectual faculties, till complete dementia and death are the result. Even when in the intervals between the convulsions a marked improvement in all respects has rewarded the persistent efforts of training and instruction, a single recurrence of the disease will destroy the labour of months. Under such circumstances, an institution offers no very essential advantages over a home, and its accommodations should be reserved for those who can be radically benefited.”

Dr. Isaac Kerlin,† who has treated a considerable number of epileptic cases, 111 out of 500 idiots, claims to have had 16 cures and 57 cases improved. Although the rules of his institution forbid the admission of an epileptic patient on the beneficiary list, Dr. Kerlin thus argues in favour of their being taken on trial:—

“But the argument of positive deterioration of the epileptic imbecile is no longer true. Seguin, the close observer and kind physician, cites a case of profound idiocy, complicated with epilepsy, in which the motor disorders and nervous irri-

\* Ninth Annual Report, 1860, p. 11.

† “Fourteenth Annual Report of the Pennsylvania Training School for Feeble-minded Children,” 1867, p. 15.



tability were so regularised by sharp training that in the sixth month the daily attacks of epilepsy entirely left him, and from *idiot* he grew to be *imbecile*; while several cases of corresponding improvement in our own family must serve to change our opinion and practice in relation to epilepsy."

I do not deny the possibility of the cure of an epileptic case; that is, the cessation of the fits, whether of ordinary epilepsy or of epileptic vertigo, which, however, is not always accompanied by an improvement in the mental vigour; but it would be desirable to know the proportion of the number of recoveries to the number of cases. If this proportion were very low—say one or two per cent.—the consequence would be that we might admit a hundred pupils, and only one or two derive benefit, while the institution would have to struggle with 99 or 98 unimproving cases, exhibiting all the distressing symptoms of epilepsy, combined with mental deficiency or alienation. In our own experience, while the epileptic cases generally present a certain fallacious amount of intelligence, this intelligence does not seem to be much improved by training. If during the intervals between their epileptic seizures they learn anything, a new attack is apt to erase it from their memory. They are generally wild and intractable, and, indeed, seem to be on the boundary between imbecility and insanity. Whatever the reason may be, I have been very little satisfied by my attempts to treat the *status epilepticus* by diet and medicine. In four cases out of twelve the tactile sensibility was found to be deficient.

The following cases may be shortly referred to as examples:—

K. C.—Epilepsy, said to have been caused by fright when seven years of age. Admitted at the age of 14, and although it was asserted, in order to secure her gratuitous admission, that the fits had ceased, the unfortunate girl had all the marks of a confirmed epileptic. A piece of her tongue had been bitten away, and she had some scars of severe burns. She was short of stature, 3ft. 7½ins. in height, but broad and square, like a Lapp woman. She weighed 62 lbs. A great many therapeutic means were tried, such as bromide of potassium, belladonna, nitrate of silver, and spinal ice bags. After a fortnight the number of the fits diminished, but the improvement soon passed away. The fits, which were never very severe nor long continued, began again to recur four or five times every day, sometimes as often as ten or twelve times. After six months' stay in the sick room she was dis-

missed as an unfit case. Her intellect had become duller, her habits degenerated, and she had lost three pounds in weight.

B. C., aged 9.—There are often considerable intervals, sometimes as much as three or four months, between the fits. He is always dull and heavy for several days afterwards. His memory is very fugitive, and though an amiable, talkative child, he learns very little. He seems to want the abstract idea of number.

B. D., aged 16.—Fits occur at rare intervals; believed sometimes to pass four or five months without a fit. General health good. He is not at all educable, and is difficult to influence or manage; but is observant, and makes odd and eccentric remarks. He is slow of apprehension and of utterance. General health good. Touch and sensibility to pain deficient.

B. H., aged 11.—Not recorded when convulsions came on, but takes fits now and then. Sensibility deficient over whole body; perhaps normal in head and face; he uses tongue and lips instead of fingers in feeling; dashes his hand on the wall; mute; violent; bites his hand and knocks his head when angry; apt to wander (possibly a congenital idiot).

J. Q., aged 11, a mute, but with enough of intelligence to be classed as an asymmetrical mute, very strong and active, difficult to manage; tears clothes occasionally, small of her age. Considerably improved, had shown no epileptic fits for two years, but had some very severe attacks two days before leaving the Institution.

B. D., aged 10.—Father's sister insane; sister died of convulsions at teething; began to walk at three years; fits not noticed till six; has epileptic vertigo frequently, for which he has been treated for nearly a year. Six months in Institution, believed to be improving.

N. C., aged 24.—Has been seven years in the establishment; is almost totally deaf; had fits up to 10 years of age which have now entirely ceased; very much improved; can speak on her fingers; can knit, sew, do household work, reads and writes, reads books of her own accord; entirely passed out of the state of imbecility. This would be a more encouraging case if the degree of imbecility in which the girl entered the Institution was more precisely ascertained. It appears from the case book that she could read and spell on her fingers, and had gone through the full training at a deaf and dumb school. On the other hand, her father was intemperate, her

mother had three strokes of paralysis (though after the birth of N. C.). The girl was observed to be imbecile from birth ; only began to walk at five years. On admission was noted to have "legs weak, subparalytic," and to be incapable of any useful occupation. There is, therefore, no reasonable doubt that she has much improved in intelligence. The fits have ceased, and the weakness of the legs quite disappeared.

### *Paralytic Idiocy.*

As the rules of an Institution like ours are unfavourable to the admission of children who require much attendance, and as the parents of those who are able to pay for their board are often unwilling to commit children in the state of helplessness following paralysis to the care of strangers, few of this class have as yet come under my notice. I can only produce six cases, two from the case-book, and four from our own observation. As far as this short observation goes, cases of paralytic idiocy improve mentally rather than physically, just as after an apoplectic shock, in which the intellect and powers of sensation and motion are impaired, the mental deficiency more readily disappears than the paralysis of sensation and motion. Of the six cases, three were out of doors ; one, a girl of nine years of age, was paralytic. She was improving mentally, but the paralysis remained unchanged ; the second was hemiplegic, the paralysis rather getting worse, but the mind getting brighter. The paralysis in the former case had been caused by a fall when three years of age.

The second, a girl of seven years of age, had paralysis complicated with fits. The third case was a boy of nine years ; the paralytic affection was supposed to have occurred in the second year of infancy. There was a considerable diminution of muscular power and sensibility in the right arm and leg. At the same time the child became nearly blind. The visual deficiency so far passed away as to allow him to distinguish two grains of barley when placed side by side on a dark-coloured table.

This boy was taken on trial for a quarter at a blind school, and the following entry put opposite his name :—"Disposition on the whole quiet and tractable. Aptitude for learning all but wholly wanting. Seems imbecile to a considerable extent."

Of the three cases in the house, one a boy of eight, on admission, was deaf as well as partially paraplegic in the legs.

He could walk with difficulty. He improved considerably in general intelligence, and learned to write well enough to imitate striking peculiarities in other people's handwriting, also to sew and knit. He died of anasarca following scarlet fever, after being two years in the house.

The fourth was a very feeble child, aged nine, who was stated to have been twice severely ill from threatened water in the head in infancy, and to have had one side weak but now equal. His father had paraplegia, his mother was weakly and nervous. He died of gastric fever, having been five months in the house. No progress was observed.

The fifth was a boy of eleven; hemiplegia believed to date from eighth month; half of tongue, uvula and soft palate, paralysed on right side, and arm and leg partially paralysed on left; sensibility as well as motion diminished; articulation deficient, cannot pronounce the letter K.

The grasp in left hand is slowly returning, and he is learning to read and write. He is extremely willing and anxious to learn, and his progress has been most gratifying. This is the only case in the house which has come under my direct observation. The other two are from the case-book.

#### *Inflammatory Idiocy.*

Inflammations of the mucous membrane of the nose and ears sometimes occur after scarlet fever, measles, and typhus, and these are the most common causes of deafness which is not congenital. Sloughing of the internal ear sometimes extends through the petrous portion of the temporal bone, causing inflammation of the membranes, and even abscess of the brain itself. Such lesions are generally fatal, and I have met with few cases of idiocy which could be plainly traced to inflammation of the encephalon not caused by external injury. There are only four such examples in our case-book,—one of which may be set apart as doubtful; the second of these, a girl of twelve, had brain fever at the age of eight years, with sloughing of the internal ears, producing deafness. This was regarded by her family as the cause of idiocy. She, however, was always peculiar, and did not begin to walk till two-and-a-half years old, though she began to speak at twelve months. Her father's brother had been imbecile.

Another case: a boy aged ten began to speak at twelve months, and to talk at eighteen months. He is recorded to

have had brain fever, with fits, when three years old. The position of the teeth is irregular. This case is an improving one in many respects. He possesses all his senses and normal sensibility; he is learning to read and write a little.

In another case of brain fever, with epileptic fits, occurring at the age of twelve, in a patient previously of good intelligence, the injury to the faculty of expression was greater than in that of conception. The patient was too old to allow her to be classed as a case of idiocy. It will be seen that the number of cases is too few to base any prognosis upon them.

### *Traumatic Idiocy.*

Of course the degree and nature of idiocy arising from wounds in the head must vary with the amount of destruction of the nervous tissue. In military surgery the prognosis of wounds of the same part would naturally vary with the nature of the instrument which caused them—for example, the arm being carried away by a round shot would be a much graver injury than if it were cut off by a sabre; but injuries to the head causing idiocy happen in so great a variety of ways, and by so great a variety of instruments, that they are not even susceptible of this rude species of generalization. We have to do with injuries to the unborn child by attempts to procure abortion,\* as well as injuries during labour by abnormal narrowness of the pelvis and the use of forceps; we have to deal with concussion as well as compression, hæmorrhages from the meninges as well as destruction to the grey or the white matter of the brain. Sometimes the injury to the mental power is permanent, sometimes it disappears more or less slowly; in some cases a trifling injury causes grave disorder, in others what appear to be a great injury leaves no visible effects behind. Hereditary predisposition has, no doubt, much to do with this. Some tribes in South America flatten the heads of their children in a monstrous manner, and it is confidently stated† that the survivors who have been subjected to this prolonged process of deformation are not inferior in intelligence to neighbouring tribes who leave the heads of their children to grow in the natural way.

\* Dr. Howe traced idiocy to this cause in at least seven cases out of four hundred ("Causes of Idiocy," p. 35). Such attempts are not so common in this country as in the United States.

† The West Riding Lunatic Asylum Reports, edited by J. Crichton Browne, M.D., F.R.S.E. London, 1871, p. 3.

Injuries to the head at birth are often assigned as causes of idiocy; yet the head of the child is not unfrequently subjected to severe compression or injury causing alteration of its shape, and this in the great majority of cases does not lead to such unfortunate results. Nevertheless, in a certain proportion of cases, probably under the influence of constitutional tendencies, such injuries become the proximate causes of idiocy.

It seems likely that the larger size of the head of the male infant, which renders it more liable to compression and injury at parturition, as shown by Sir James Simpson, is the cause of the higher mortality of male children during the first year of life, and especially of their greater liability to diseases of the brain.

“According to Prof. Faye,” says Darwin in his “*Descent of Man*,”\* “for every 100 still-born females we have in several counties from 134·6 to 144·9 still-born males. Moreover, during the first four or five years of life more male children die than females; for example, during the first year 126 boys die for every 100 girls—a proportion which in France is still more unfavourable.”

“Diseases of the nervous system,” observes Dr. Farre in the Registrar-General’s Second Annual Report, “are 23 per cent. more fatal to males than females, the chief difference arising from the diseases which affect children.” “At almost every stage of life,” says Dr. Stark, the Registrar-General for Scotland, “the males in Scotland have a greater liability to death and a higher death-rate than the females. The fact, however, of this peculiarity being most strongly developed at that infantile period of life when the dress, food, and general treatment of both sexes are alike, seems to prove that the higher male death-rate is an impressed natural peculiarity due to sex alone.”†

It has been occasionally noticed that idiocy is more common with males than with females, though even those well acquainted with the subject have not as yet recognised this as a general truth, nor, indeed, is it easy to prove it to be so, for the statistics of idiocy, drawn from the census of different countries, are manifestly imperfect, owing to the reluctance of parents to return their children under such a heading. In the census for 1861 only 481 imbeciles were returned for all Scotland—279 males and 202 females, yet much about the

\* Vol. i., p. 302.

† Tenth Annual Report of Births, &c., in Scotland, 1867, p. xxviii., quoted by Darwin.

same time Dr. W. A. F. Browne had a list of 2236 idiots and imbeciles either visited by himself or by medical men upon whom he could rely, "irrespective of those cases which are confined in lunatic asylums and workhouses, which are not necessarily returned as idiot, and are generally confounded with the mass of the insane." Of these 1220 were males and 1016 females.

The twenty-second report of the Earlswood Asylum for Idiots, for the year 1869, gives a return of 316 males and 162 females; that of Essex Hall, Colchester, for 1871, shows 64 males with but 30 females. In the Albert Asylum, Lancaster, the wing for the boys is made one-third larger than that for the girls. In Baldovan Asylum, in 1871, there were 27 boys and 11 girls. In Larbert, though with the view of equalising the number of males and females, the preference was sometimes given to female candidates, in 1871 the numbers stood 43 males and 30 females. There are now 50 males and 33 females.

In the returns of idiots from district asylums in Scotland, where the sexes are given, we find 113 males, and only 91 females. It will be noted that in all these figures the proportion of males is higher than that of females.

In the fourteenth annual report of the Pennsylvania Training School for Feeble-minded Children Dr. Kerlin remarks, "92 are males and 64 are females; this proportion of sex among imbeciles having held during the history of this institution, and is sustained by more aggregated statistics of State Commissioners." In the statistics of the Duchy of Brunswick, for 1868, where the male and female population are nearly equal (151,213 males to 151,588 females) the number of male idiots was 250, or 1 in 605; of female idiots 225, or 1 in 674 of the general population. It is probably this greater liability of the male to suffer from diseases of the brain which renders him more liable to deafness. "It is a fact," writes Mr. David Buxton,\* Principal of Liverpool Deaf and Dumb School, "that the majority of children who enter our institutions, having lost their hearing from disease, are males."

Of 2962 instances, says Mr. Wilde,† of uncomplicated congenital muteism, 2512 cases were cases of single mutes in each family, the sexes being in the proportion of 100 males

\* See his "Inquiry into the Causes of Deaf-Dumbness," originally published in the "Liverpool Medico-Chirurgical Journal," January, 1859.

† See the interesting Appendix upon Deaf-Dumbness in "Practical Observations on Aural Surgery and the Nature and Treatment of Diseases of the Ear," by William R. Wilde, F.R.C.S.I., &c., London, 1853, pp. 470, 471.

to 73 females, and of these by far the greater proportion were first children."

It would be difficult to find any other explanation of this than that the first labour being generally the most severe, the head of the child is more liable to receive injury. "It is remarkable," says the same writer, "that while the male sex largely predominated in all other instances, the sexes of mutes were equal in 84 instances in which the eighth child was born deaf and dumb."

But while it appears probable that one cause of the superior number of male over female idiots is owing to the greater liability of the male head to injuries at birth, it is possible that there may be yet another cause of a much more obscure character. It has been asserted that congenital malformations, leaving injuries to the head at birth out of view, are more common with male children than with female. This appears to be the case at least in those parts whose organization is more complex.\* As a general rule a higher elaboration and a larger amount of plastic material is required for the formation of the male organism. And the greater the demand upon the productive power of the mother, the more likely a failure in the formation of some of the parts in the child.

In cases of deaf-dumbness supposed to be congenital, it sometimes happens that in one family the boys are affected, the girls entirely escaping.† This not unfrequently happens with congenital idiots. Sometimes, though more rarely, all the male children escape, and several or all of the female children are born deaf. There is one instance recorded in our case-book where there were in a family three imbecile sisters out of six, and four brothers who were of sound mind, but their ages and order in family are not given.

The following case is most probably of traumatic origin:—  
K. N., aged 13; head small, narrowing towards vertex.‡ He

\* See the Papers of Dr. A. Duncan, "Edinburgh Medical and Surgical Journal," 1805, vol. ii., pp. 43-132.

† See "Edinburgh Medical and Surgical Journal," 1811, vol. vii., p. 62, and Wilde ut cit.

| ‡ Measurements of head taken in inches. |                  |
|---|------------------|
| Antero-posterior . . . .                | 10½ in. = 26½ c. |
| Circumference . . . .                   | 18½ in. = 47.    |
| Transverse . . . .                      | 11 in. = 27¾.    |
|   | 107¼ c.          |

|   |                |
|---|----------------|
| From tragus to middle of forehead             | 4½ inch 11½ c. |
| From tragus to middle of occipital tuberosity | } 4 inch 10 c. |
|   |                |



was the first child; mother 16 years old at his birth. Born at full time, and delivered with forceps. The marks of forceps were still visible on right temple, where there was a spot destitute of hair. The infant could not suck for the first week. He had three fits a short time after birth, and a great many more when three months old. Has had no fits for three years. He began to walk at two years; can only speak a few words, but understands to a limited extent what is said to him; knows he can get something for money; use of hands deficient; good natured; apparently healthy.

The mother, a healthy-looking Irishwoman, had five other children, all delivered by the forceps. They are all healthy, and said to be of average intelligence.

In this case it would seem as if the injury at birth had caused fits and obstructed the nutrition of the brain, so that it remained no larger than that of a child a year old. His head is smaller than any in the Larbert Institution.

### *Microcephalic Idiocy.*

It is a common assertion in scientific books that the size of the head of the idiot is abnormally small. Even in a sober, exact book, like "Quain's Anatomy,"\* we meet with such sweeping assertions as these:—"The brain of Cuvier weighed upwards of 64oz., and that of the late Dr. Abercrombie about 63oz., avoirdupois. On the other hand, the brain in idiots is remarkably small. In three idiots, whose ages were 16, 40, and 50 years, Tiedemann found the weight of their respective brains to be 19 $\frac{3}{4}$ oz., 25 $\frac{3}{4}$ oz., and 22 $\frac{1}{2}$ oz., and Dr. Sims records the case of a female idiot, 12 years old, whose brain weighed 27oz."

No doubt these individual weights and measurements are correct, but to found a general statement upon a few such cases is entirely misleading. In a recent paper upon the weight of the brain † in insanity we are told that the weight of the brain of an imbecile, aged 75, weighed 63 oz. 4 drachms, that is, heavier than Dr. Abercrombie's. On this subject Dr. S. G. Howe remarks, "Idiocy is sometimes caused by the smallness of the brain; indeed, the true *type* of the lowest class of idiots is a person whose brain is too small to perform its functions normally. The common notion, however, that this is generally the cause of idiocy is incorrect.

\* "Quain's Anatomy, 1856," vol. ii., p. 432.

† "Edinburgh Medical Journal," March, 1872.

Out of 338 cases, the measurement of which is given by the Massachusetts Commissioners, only 99 had diminutive brains. Amongst our boys only two have very diminutive brains."

It is likely enough, as Esquirol has stated, that the average size of the heads of idiots, even setting aside microcephalics, is less than the average size of those of ordinary people; but an indication like this is of no value in prognosis. It is only when the head is unusually large, as in chronic hydrocephalus, or unusually small, as in microcephalus, that the measuring tape is of use.

In small-headed idiots, if the brain be healthy, the prognosis is not so bad as might be supposed. Such cases improve under training, and have more physical and moral energy than is common with idiots of other classes.

Dr. Wilbur, in his Report of the New York State Idiot Asylum for 1857, speaks of a boy 12 years old, rather small of his age, his head is smaller than any whose dimensions I have seen recorded; the greatest circumference of his cranium is only  $13\frac{1}{4}$  inches; "he was not cleanly in his habits, had but little idea of language, was passionate, could not speak at all; he has now been under instruction a year, he can distinguish a variety of forms and colours, he knows the name of all objects in the schoolroom and about the house, and also the names of all the pupils in school; he recognises a great number of pictures of objects; he is beginning to speak, and has already learned several printed words as the representatives of familiar objects; he is now making sensible progress every day."

In the Eleventh Annual Report for 1862 there is an account of the further progress of the same pupil, "a boy whose head was exceedingly small—in fact, smaller than any on record, except those of the Aztec children. He was in the asylum for five years, improving in many respects, but the extent of his further progress was so limited that he was dismissed." At Earlswood, amongst more than 500 inmates, I asked in vain for a microcephalic idiot with a circumference of head under 18 inches, but I found one at Lancaster, whom, through the kindness of the Superintendent,\* I was allowed

\* It would appear, from the remarks of Dr. Shuttleworth, that there were at that time three microcephalic idiots at Earlswood, one of whom I saw. Unless my memory much deceives me, the circumference of her head was fully 18 inches, but being of a tapering or cone-shaped form the brain was smaller than such a circumference would imply in a head of normal roundness. Dr. Shuttleworth described her as being a girl of more than usual energy, very determined to have her own way, and at 15 years of age not behind the ordinary intelligence of a girl of 12.

to examine. The circumference of his head was  $14\frac{1}{2}$  inch = 36 centimetres. The measurements of the head of the Lancaster microcephale were—

|   | inches.         | Centimetres<br>(about). |
|---|-----------------|-------------------------|
| Antero-posterior... ..                                      | $7\frac{1}{2}$  | $19\frac{1}{2}$         |
| Circumference ... ..  | $14\frac{1}{2}$ | 36                      |
| Transverse ... ..   | $9\frac{1}{2}$  | 25                      |
|   |                 | <hr/>                   |
|   |                 | $80\frac{1}{2}$         |
| From external meatus of ear to middle<br>of forehead ... .. | $4\frac{1}{4}$  | $10\frac{1}{2}$         |
| From meatus to middle of occiput ...                        | 4               | 10                      |

There was nothing very peculiar about the form of the head. He was a healthy and well-made child, with good teeth and small hands and feet, but little for his age, which was eight years.

He was quarrelsome and unmanageable, biting and kicking when angry. If his nurse pretended to cry when he struck her, he would appear sorry. She thought him the most intelligent child among eight idiots of about his own age. If the other children struck him he would fly at them. He was imitative, but inclined to steal; when caught stealing he seemed ashamed and turned red.

Dr. Howe gives the average circumference of the head as 22 inches, about 56 centimetres. This, surely, is too high. The smallest head which has come under my observation in the Larbert Institution is that of a boy aged 16. The circumference is 47 centimetres =  $18\frac{1}{2}$  inches; antero-posterior measurement 29c. =  $11\frac{1}{2}$  in.; transverse = 20c. combined, 106c. Apparently he has been affected with constitutional disease, but is now healthy. He is an asymmetrical mute, a ready mimic, and an expert thief; can use his hands well, and is observant and intelligent in many things.

### *Congenital Idiocy.*

As in congenital idiocy the diseased condition entailing deficient mental manifestation is complete before birth, the presumption of a hereditary connection is stronger than in other forms. If the family history be known there are often parents, aunts, or uncles who have been insane, imbecile, epileptic, or deaf. Sometimes the congenital idiot is the youngest child of a large family, especially when the parents are advanced in life; sometimes he is a child prematurely born. Constitutional diseases are common amongst con-

genital idiots, especially scrofula, syphilis, and rickets. The circulation is often feeble; the limbs, especially the lower ones, are cold. Such patients are subject to chilblains; sensibility is deficient; they allow their shoes to gall their feet, till ulcers are produced, which are very slow of healing. Deformities are common among congenital idiots, especially a highly vaulted palate, teeth irregularly placed and subject to decay, especially on the upper jaw, deficient growth of the finger nails, clubbed or wad-shaped fingers, clubbed feet, squinting, and rolling of the eyes. Other malformations are revealed by dissection—deficiencies of the valves of the heart, cyanosis, abnormal distribution of the blood vessels, lobulated form of the kidneys as well as abnormalities in the brain. In idiots the back of the head is often flat; but this is not peculiar to any forms of idiocy, and is as often absent as present. I am not aware of any particular form of the head common to this form of idiocy.

Congenital idiots are seldom well made; often dwarfish; put themselves into strange postures, which may be confirmed by habit into deformities. No doubt the condition of the fluids is often deficient; and we must look for an explanation of the idiotic condition not only in the structure of the brain, but in the relation of the blood to the brain. When the general health becomes stronger the patient turns brighter, more noticing, and improves under teaching. What has been named spurious hydrocephalus, or hydrocephaloid, which is indicated by drowsiness or stupor without fever and with depressed fontanelle, is an illustration of deficient function of the brain without organic disease, dependent on poor blood supply. It occurs in ill-fed, neglected children, and often attends the close of chronic vomiting. Sometimes it disappears very quickly.

It would be difficult to generalise the variations from the natural type which occur amongst congenital idiots. They may, perhaps, be divided into two classes—those which appear to result from arrested development, and those which appear to result from diseased growth. I am well aware that it is not sufficient to assert that a deficiency in function is owing to arrested development. One ought to be able by dissection to shew the connection between the rudimentary organs in the idiot and the different stages of embryonic life, and this has not yet been done, though a number of facts seem to bear out the view that it is capable of scientific demonstration. It may be said that the definition of con-

genital idiocy is a mere residuum of conditions occurring before birth, which, from the obscurity of the investigation, have escaped analysis or classification ; congenital idiots may have water in the head, or crania abnormally small, or have a liability to fits, and thus be reclaimed as hydrocephalics, microcephalics, or eclampsics.

In looking over a list of 64, tabulated as congenital idiots, it is clear that the mere fact of their being in this class will not guide us much in our prognosis. The list comprises some of the worst and some of the most improvable cases, solitary idiots as well as imbecile and feeble-minded children. We must therefore have recourse, in a great degree, to those general tests, which are also of use in examining other kinds of idiocy. We ought, by carefully put questions, to ascertain the amount of intelligence existing, the degree to which speech is exercised, the knowledge of number possessed by the child, as well as the power of attention and of memory. It is a bad sign when the grasp is loose, or readily relaxed, when the eye cannot be fixed, and when there are automatic motions. The power of muscular motion, as shown in walking over the floor or across a plank, or in better cases, of carrying a vessel full of water, is a surer test than that of tactile sensibility. Congenital idiots of the lower type are often very deficient in these respects. It is rare that cases where the circulation remains torpid, as indicated by feeble pulse, cold feet or hands, or other signs, make much progress in education and training. On the contrary, the prognosis is good where the child is active and vigorous, noticing things, where he has begun to speak before six or seven, and has got a firm grasp, and a normal amount of tactile sensibility, and the faculty of attention capable of being sustained. Most idiots seem to take up the idea of number with great difficulty ; but this test is more useful in diagnosis than prognosis.

It is common enough for parents to found hopes upon their children having a good ear for music ; but this seems a gift common to all kinds and degrees of idiots. Mimicry and a sense of the ludicrous indicate a certain amount of intelligence, though perhaps not so much as might be supposed. There are some idiots who can be taught to work very tolerably, who can never be taught to read ; and others, who can be taught to read and write, who can never be proficient at work. Special faculties are sometimes preserved in a wonderful degree. Naturally these cases are brought prominently before the public in the annual reports of the Institutions in

which they are educated, so there is the less excuse for me to enlarge upon them.

### *Idiocy by Deprivation.*

Idiocy by deprivation means that condition of mind in which a child remains who is deprived of two or more of the principal senses—such as sight and hearing. Of this character are the cases of James Mitchell, who was born deaf and blind, but whose eyesight was restored by being couched for cataract; of Laura Bridgman, blind and deaf, and with the senses of smell and taste much impaired, who was taught to communicate through the sense of feeling; and of Meystre, blind and deaf, who was taught in addition to speak a little.\*

I have heard accounts of several other children, both deaf and blind, who have been taught to read by means of embossed letters, such as are used for the blind, and thus a limited amount of information can be conveyed. It, however, requires a considerable amount both of tactile sensibility and of mental power to learn to read in this manner, as any one will admit who tries to make out even the easiest letters, such as O or I, by feeling alone. Such cases, therefore, if they belong to idiocy at all, are easily separable from the other groups; and much progress in teaching can scarcely be expected without good original ability, and a great deal of pains bestowed upon them.

Helvetius argued that one great cause of the superiority of man, and of one animal over another, lay in the tactile and prehensile power of the hands or other organs. The fallacy of such notions was ingeniously shown by Frederick Cuvier, who pointed out that the seal was an animal of wonderful sagacity, though unusually deficient in organs fitted for feeling or grasping.

Deficiency of sight and hearing is not uncommon with idiots, and forms a very serious bar to instruction. In one case already referred to, a boy who was sinking into an extremely obtuse condition, from having become deaf and dim of sight, had his mental powers and faculty of expression aroused by being taught figurative signs, and to spell on his fingers.

\* See an account of these cases in the work "On Aural Surgery," by William R. Wilde, already quoted, pp. 476-480.

*The Madmen of the Greek Theatre.* By J. R. GASQUET, M.B.

II.—ORESTES.

(Continued from page 178.)

Euripides introduces the story of Orestes into three of his tragedies, which were written at different times, and on no common plan ; but they, nevertheless, follow the same general manner of treating the subject. Sophocles had apparently felt that he could best introduce novelty into the treatment of a subject already dramatized by the master hand of Æschylus, by bringing into prominence the sufferings of Electra, and her delivery by her brother Orestes. Euripides followed the same idea, and went farther. In the "Electra" he has given a new turn to this part of the legend, while the "Orestes" touchingly depicts the madness of his hero, and Electra's devotion to him. In the third drama, Orestes is represented as suffering from a later stage of insanity, and ship-wrecked at Tauri, where he meets with his other and long-lost sister, Iphigenia. The "Electra" contains nothing to our purpose, but it is interesting to remark the behaviour of Orestes before and after the murder of his mother. While he is not menaced by insanity, as in Æschylus, so he does not commit the crime without hesitation or remorse, as in Sophocles. On the contrary, Euripides makes him waver before doing the deed, so that Electra's powers of logic have to be exerted to the utmost ; while, afterwards, he turns upon his sister, and accuses her of having urged him to commit so fearful a crime. I think every impartial person who reads the play will agree with Paley, that Schlegel was completely wrong in objecting to such evidences of remorse ; nay, we may go farther, and say that the whole passage displays great knowledge of the different behaviour of men and women under such circumstances. It is just what we should expect, that a high-souled girl like Electra, who had always lived in the hope of seeing her father and herself avenged, should be impatient of doubts and conscientious scruples in the way. Women will readily believe any means lawful or expedient to gain an end which they feel is right and desirable. But the poet has done ample justice to the sex he is so unfairly accused of hating. The generosity with which Electra bears all the blame, nor retorts upon him, who, after all, struck the

blow, is as characteristic of most of her own sex, as the ungenerousness of Orestes is, I fear, typical of the behaviour of many of ours.

In the "Orestes" we come at once to what concerns us. The play opens with a monologue by Electra, who is seated near her sleeping brother, and tells the audience that he had slain Clytaemnestra in obedience to the commands of Phœbus. She proceeds to describe her brother's state as follows:—

"Since then Orestes hapless languishes  
In sickness sharp, and lies here on his couch;  
His mother's blood he shed has tortured him  
With madness; for I may not speak of them—  
The Gracious Ones, who hunt him down with fear.  
Five days have passed since that his mother's corse,  
But lately slain, was purified by fire;  
These five days gone, he has not tasted food,  
Nor washed; but, hid within the coverlets,\*  
If eased his body be from his disease,  
He weeps in conscious grief. Then from his bed  
He swiftly leaps, as from his yoke the steed."†

Presently a chorus of attendant maidens enter. They exhort each other to be silent, and Electra repeatedly begs them to sing in a low key. They proceed then to chant invocations to sleep (according to the rules of Greek tragedy, but with an inconsistency like that of the stage "asides" of our modern theatre), and to ask Electra what will be the issue of her brother's sickness. She replies, "it can only be death, since he has no desire for food." After a time, they beg her to go up to the couch. "See, lest he be dead; his extreme weakness does not please me."

Orestes then awakes‡ refreshed by his sleep, and speaks, for the first time since his mother's burial, as follows:—

Slumber, thou best relief, comfort in sickness, hail!  
How sweet thou cam'st to me in my sore need,  
Gracious oblivion of all ills, thou Goddess wise,  
And much besought by the unfortunate.

\* *χλανιδίων ὄξσω κρυφθεῖς*. Paley remarks, this may merely mean "the muffling of the face in grief within the folds of the robe;" but the rendering given above is that required by the context.

† Vv. 34-45.

‡ "The scene that follows is certainly one of the most charming in Euripides, and it appears to have been greatly celebrated in antiquity, for nearly every verse of it is quoted by some writer or another, and very many by several in common. Nothing could be more touchingly described than Electra's anxious care for her sick brother; nothing more naturally than his lucid intervals, and the symptoms and outbreak of the paroxysm." (Paley—Note on v. 207). Unfortunately the translation given above has only the merit of being literal, and gives no idea whatever of the beauty of the original.



- How came I here, and whence?  
I have forgotten all before my sleep.
- Electra.*—My dearest one, what a delight to me  
Thy rest! Shall I now raise thee in thy bed?
- Or.*—Ay, lift me up, and wipe the frothy phlegm  
From off mine eyes, and from my wretched mouth.
- El.*—An office sweet, and not to be refused,  
My brother's limbs to handle sisterly.
- Or.*—Against my side place thine; my matted hair  
Take from my face; mine eyes can hardly see.
- El.*—Poor head, how tangled all thy curls! how rough  
And wild thy look from this long want of care. \*
- Or.*—Lay me again upon my couch, for when  
The fit of madness leaves me, I remain  
Feeble indeed, and very weak of limb.
- El.*—How pleasant to the sick man is his bed;  
How needful, yet how much disliked!
- Or.*—Raise me once more, and turn me round,  
Sick men are helpless, and so troublesome.
- El.*—Or would'st thou rather choose to try thy feet  
Upon the ground? Change is in all things sweet.
- Or.*—Ay, ay, for this has some slight show of health,  
And the mere show is something in disease.
- El.*—While the Erinyes leave to thee thy mind,  
Listen to what I have to tell, dear brother.

They then speak of the arrival of Menelaus, on whose assistance they count, and of Helen; when Orestes suddenly turns upon his sister—

- Be thou from such vile women different,  
Nor say so only; really feel their crimes. †
- El.*—Alas! once more thine eyes are wandering,  
How quickly changed to madness is thy mood!
- Or.*—Mother, I thee entreat, do not against me urge  
These blood-faced maidens with their snaky hair,  
For they, the very same, are bounding close to me.
- El.*—Stay, darling, quiet on thy bed; thou see'st  
None of those things thou seem'st to know so well.
- Or.*—Apollo, these priestesses of the dead,  
The dog-faced, fearful Goddesses will slay me now.
- El.*—I will not loose thee, but my hand shall hold  
Thee back from leaping up in thy despair.
- Or.*—Let go, let go; one of my Furies, thou  
Dost hold me fast in Tartarus to plunge.  
(*Orestes springs from the couch.*)
- El.*—Alas! alas! what helper may I find  
Now that the Gods are hostile unto us?
- Or.*—Bring me mine arrows, which Apollo gave,  
That with them I might keep the Furies off,  
Whene'er their frantic ravings frightened me.  
A mortal hand shall wound you, though divine,  
Unless ye straightway go from out my sight.

\* διὰ μακροῦς ἀλυσίας.

† Egredie Euripides hac severa admonitione, quam non merita est Electra, incipientem impetum insanix expressit. (Hermann—quoted by Paley.)

Hear ye not? See ye not the winged shafts  
 Of the far-reaching bow toward you fly?  
 Ha! Ha!  
 Why tarry ye? climb on your wings the air,  
 And Phœbus' oracle accuse on high.  
 Ah! \*  
 Why do I wander, breathing deeply thus?  
 Where have I leapt to from my bed? For now  
 Once more beyond these waves I see the calm.  
 Why weep'st thou, sister; why thy face dost hide? †

With this ends the description of Orestes' attack, and presently Menelaus enters, at whose feet he falls to implore protection. Menelaus starts back, saying, "Ye Gods, whom see I, which of the dead behold?" remarking particularly on his matted hair and tearless eyes. He then asks—"Why sufferest thou; what disease is wasting thee?" and Orestes answers—"Conscience. I know I have done fearful deeds."

I have quoted at some length, but I prefer to place before my readers the text of Euripides, and leave them to form their own opinions on it. The external characteristics of acute mania (or rather of what is now called "acute delirium") were sure to be laid hold of by the dramatist. Such are the tangled hair, the dry eyes, and the unwashed condition of the maniac, which were easy for him to represent; but the serious import of want of food, and the whole representation of the attack which takes place upon the stage, argues a more than superficial acquaintance with insanity on the part of Euripides. I would especially remark on the irregular and unsymmetrical movement of the eyes, ‡ which is usually the immediate præcursor of such an attack of delirium.

Once more Orestes is introduced into one of Euripides' plays. In a tragedy (written probably *before* the "Orestes") he is represented as travelling under the ban of the Furies, from country to country, until he at last arrives, with his friend Pylades, on the shore of Balaclava in the Crimea. He has been commanded by the oracle to bring to Athens a statue of Artemis, which was worshipped there, and before which his long lost sister Iphigenia sacrificed human victims. While they are hiding in a cave until night should come on, a fresh attack of insanity makes Orestes and his comrade

\* The first exclamation (*ᾄᾄ*) must be supposed to have been uttered in the loudest and most excited tones. But the second (*ἔα*) is said with a short pause, and in a subdued voice. He is just returning to consciousness. (Paley.)

† Vv. 211—280.

‡ ὄμμα τὸν παράσσειται, v. 253.

more conspicuous than they had intended. A herdsman thus describes the scene to Iphigenia :—

“ One of the strangers came out from the cave,  
 Stood still, and yet quivered in ev'ry limb,  
 And waved his head, the while he madly raved  
 And cried as doth a huntsman to his dogs :  
 ‘ Pylades, see'st thou yonder Fury, and  
 Another hellish dragon there, who, arm'd  
 With fearful snakes, would strive to slay me too ?  
 Ay, and that third one, breathing fire and death,  
 Bearing my mother in her arms, flies down  
 Towards that rock, which she would cast at me.  
 Alas ! she'll slay me. Whither shall I fly ? ’  
 Now, naught was there to see of all those ghosts ;  
 He but mistook the lowing of the kine  
 And barking of the dogs, for the like sounds  
 Which we are told the Furies do produce.  
 We, meantime, close together, silent sate,  
 As men about to die ; for he drew forth  
 His sword, and, rushing on the cattle, smote  
 Them, like a lion, on their flanks, until  
 (For thus he thought the Furies to ward off)  
 A bloody foam rose on the very sea.  
 We then took arms . . . . .  
 The fit of madness past, the stranger fell,  
 With slaver dropping from his chin ; while we,  
 Seeing him timely fallen, did our best  
 By throwing stones to strike him ; but his friend  
 Wiped off the slaver from his mouth, and shelter'd him  
 By spreading out his garment, warded off  
 Each threatened blow, and gave him ev'ry care.  
 The first arose, clear in his mind, and saw  
 The storm of enemies he had aroused,  
 And the misfortune which befell them both ;  
 He groaned aloud.”\*

The attack of insanity in this play, as well as in the “ Orestes,” does not recur ; and critics have even objected to both the plays, that the hero, having appeared as a feeble maniac at first, acts in all respects as a reasonable man afterwards ; but I do not think those of us who have seen similar cases of “ mania transitoria” † (of which many have been described in this Journal) will join in the objection. We know that such short attacks of insanity, particularly when they “ discharge ” themselves (so to speak) by acts of great violence, generally end abruptly, and with almost immediate return to mental health. Whether such attacks were not relatively more common among the Greeks than with us, is a

\* Iph : Taur. vv. 281-318.

† I use Krafft-Ebing's name, which has the advantage of not prejudging the nature of the disease.

question which we need not now consider. I am inclined rather to dwell on the greater prominence given to conscience and bodily disease by Euripides, as distinguished from the more supernatural view taken by Æschylus. In this, as in all his other religious and philosophical views, he was more illogical than his two fellow-dramatists, simply because he more thoroughly represented the mind of his day, when polytheism was dying out, and no other system was prepared to take its place. But the position in which Euripides expressly places conscience in the history of Orestes is worthy of his noblest title. He is a mark for the scorn of Aristophanes, as the friend of Socrates;—as the disciple of the man who could teach his fellow-citizens, that, though their religious systems were failing, and their intellectual culture was vanity, they could look to the approval of their own consciences for their highest reward here, and for the pledge of a still greater hereafter.

*On the Proposed Abolition of Seclusion.* By T. L. ROGERS, M.D., Medical Superintendent of the County Asylum, Rainhill.

(*Read at the Annual Meeting of the Association, held at Edinburgh, July 31st, 1872.*)

A paper having been read at one of the quarterly meetings of the Association, on the “Abolition of Seclusion,” which paper was subsequently published in the “Journal of Mental Science,” I am induced to bring the subject before the General Meeting of the Association, with a view to elicit the opinions of members upon the subject.

In doing so I am at a disadvantage in this respect, that I am in entire ignorance of the opinions that were expressed in the discussion which followed the reading of the paper; and hence what I am about to say may, for aught I know, have been better expressed at that time; but as the paper is published alone and without any indication of the general opinions of the members who were present at the meeting, I am desirous of placing on record my own views on the subject, and also of hearing the opinions of those members of the Association who do not accept the views of the author of the paper.

The “Abolition of Seclusion” appears to have been recommended as something new, and which required only to be

more fully known to be generally adopted by the majority of medical officers of "hospitals for the insane."

My purpose is to show that the idea is not novel, and that the disadvantages of the treatment recommended more than counterbalance the advantages. I go further, and maintain that seclusion, rightly employed, is not only a safe and expedient, but also a rational and scientific mode of treatment in certain cases of mental disease.

The idea is not novel. Many years ago seclusion, both by day and night, was entirely abolished at Fisherton House Asylum. When I visited that establishment in 1861, there was only one separate room in the house which was allotted as an indulgence to a member of our own profession, who was confined there, and this was done when there were at the time nearly 300 criminal lunatics in the Asylum, many of them being patients of the most violent habits and propensities.

Although I could not but admire the energy and determination displayed by the proprietors of that establishment in having so resolutely carried out their purpose of proving that seclusion could be superseded, I was not the more satisfied that the plan was expedient or desirable.

For my own part I see no difficulty in the "how" to abolish seclusion, but I see many reasons "why" the system should not be abolished. Assuredly if I considered seclusion injurious to patients I should not employ it, and here I must digress a little to protest against the too frequent habit of medical superintendents and others of laying the blame of anything of which they disapprove on their attendants.

There is an old adage about a certain class of workmen who complain of their tools, which holds good in the case of attendants. When superintendents complain of the idle propensities of their attendants, it reminds me of the chronic martyrdom which a certain class of ladies suffer from the behaviour of their servants, and seems to indicate either that they themselves are deficient in that knowledge of mankind which enables one man to govern his fellow men, or that they expect a more faithful and self-denying attention to duty than they ought to expect, having regard to the agents they employ.

If they were occasionally to ask themselves how they would act under all the temptations and provocations to which an attendant is exposed, if they bore in mind the fact that few attendants have had the benefit of any special training, and that they lack the advantages of education which they them-

selves possess; and reflected that after all with all their advantages, it is just possible that if they were to change places with their attendants they themselves might fall short of the standard of excellence they had set up, I think we should hear less of the shortcomings of attendants.

My own conviction of the value of seclusion in the treatment of insanity has increased of late years.

It is many years since the alternative of active walking exercise in place of seclusion in cases of acute mania was strongly advocated, and this practice, the author of the paper before alluded to, seems desirous to see revived. A prominent advocate of this practice was a late member of the English Lunacy Board, himself previously a distinguished superintendent of a large asylum, and I certainly gave the practice a fair trial; but the result was unsatisfactory to myself, and, I believe, disadvantageous to my patients.

Indeed, I cannot see on what grounds but a purely psychic theory of insanity, such a practice could have ever found favour.

Let us picture a patient admitted into an asylum in a state of acute mania—the pulse from 100 to 120 or more, temperature over 100°—tongue very probably dry, and all the other symptoms of exhaustion present, which indicate prolonged mental excitement, with most probably absence of sleep, and an insufficient quantity of food for several days previously; let us leave the mental symptoms out of the question for the present, and suppose a physician, called upon to treat such a case, without having ever heard of such a disease as “mania,” and consequently to be guided by the bodily symptoms alone—would anyone in his senses say “the patient wants exercise—walk him out with a nurse?” Would he not rather say, “Whatever the disease may be, the symptoms remarkably resemble those of fever—we will at all events treat him as such, and keep him as quiet as possible, and in bed,” and because the disease is labelled “acute mania,” is he to adopt a diametrically opposite mode of treatment?

Although we have indeed lately heard it laid down as a principle by a very high authority on medicine that “we must indeed treat the disease and not the symptoms,”\* I am, nevertheless, fully convinced that the scientific progress of the treatment of cerebro-mental disease has been more retarded by a too close application of this rule than by anything else; that too much attention to the psychic and too little to the

\* See Dr. Wilk's Lecture, *Lancet*, February, 18th, 1871.

physical symptoms have been the main obstacle to a rational system of therapeutics in insanity.

It has been calculated that an increase of temperature of five degrees above the normal standard of the blood is equivalent to the work of lifting the body vertically one mile.

Those who advocate strenuous bodily exercise in acute mania must surely act on the principle of *similia similibus curantur*, but to me it appears more like what is popularly known as "burning the candle at both ends."

I do not undervalue the beneficial influence of exercise in the treatment of insane patients, which, like employment, has been found to be of the greatest service in the experience of all who have had the care of the insane, in cases in which it has been judiciously employed—that is on the subsidence of the more acute symptoms; but the more I see of acute mental disease, the more I am convinced of the value of simple rest in bed in the earlier stages, and I have made it a rule in my own practice that every patient on admission shall be kept in bed for the first day at all events.

Even the simple rest gained by lying in bed, together with the maintenance of an equable external temperature, and regular feeding, will often effect a material improvement in a patient's condition, without other treatment.

With patients in a maniacal condition, this keeping in bed implies keeping them in seclusion, for I am strongly opposed to the practice of keeping patients in bed by the coercion of an attendant or attendants employed to constrain their movements; believing that the physical efforts of patients to oppose this species of restraint, and the mental irritation caused by the constant opposition to their actions, are far more detrimental to their well-being, both physical and mental, than the passive state of seclusion; and to the objection that may be raised, that by keeping a patient in seclusion, you cannot ensure his remaining in bed, or clothed, I answer that you can at all events ensure an equable temperature, soft material to surround him, and a limited amount of movement.

In fact, so far from wishing to abolish seclusion, I am so much impressed with its value in the treatment of recent cases of insanity, that I have lately had several separate rooms prepared with a lining of kamptulicon cemented on boarding about seven feet high, the floor of the rooms being covered with the same material, and an additional narrow window being placed above the reach of the patient to admit of a certain amount of light when the shutter of the larger

window is closed. These rooms are ventilated, and artificially warmed in winter, by air admitted from shafts opening directly into the airing courts, and which passes through flues containing hot-water pipes, the entrance of the shafts being governed by Arnott's valves, which prevent any back current of hot air, the exit for the respired air being into a flue at the top of the rooms. (In fact, the same kind of arrangement that was advocated some years ago in a paper that occasioned much controversy at the time, with this addition—that my patients are provided with bedding and clothing.)

To carry out the principle of non-seclusion in its entirety, the use of separate rooms should be abolished by night as well as by day, for to a sleepless patient the long hours of the night are probably even more wearisome than those of the day; but what rest is to be enjoyed by convalescing patients, when those suffering from acute mania are occupying the same room?

It seems to be assumed that mental excitement in acute mania is a given quantity, which must sooner or later be expended, and that if this can be converted into muscular force and expended by trotting patients round an airing court, so much the better; but I am unable to perceive the truth of either of these hypotheses. On the contrary, maniacal excitement appears to me to feed itself, and probably most physicians must have observed (especially in the case of excitable children) the development of great mental excitement—in some cases amounting almost to delirium—from the increased rapidity of the circulation produced by great muscular exertion in play.

It may be said that this is due as much to the exercitation of the mental emotion as to the muscular exercise; but, admitting this, it at least proves that muscular exertion does not allay it. And it will be probably in everyone's experience that great muscular fatigue induces a condition which is inimical to sleep; and I suspect that in cases of acute mental disease a corresponding ratio might be traced between the muscular treatment and the number of deaths from exhaustion.

I could quote numerous instances in which I have given a fair trial to both methods of treatment, but I will instance two only by way of illustration of the positive good effects of seclusion.

The first case, admitted some years ago, was that of an extremely maniacal patient, whom I regularly sent out in



charge of one or two attendants to walk in the asylum grounds; but she was so extremely unmanageable, tearing her own clothes and those of the attendants to shreds, and obstinately refusing to do anything, or go anywhere, as she was wished to do, so much so that she had to be carried into and out of the ward (there being at the same time so much method in her madness that she would tell the attendants that they were paid to attend to her, and she would do as she liked), that I eventually gave up this plan of treatment, and ordered her to be kept in seclusion, when she soon began to improve, and is now a fairly well-behaved chronic lunatic; but I am strongly inclined to believe that if seclusion had been employed from the first that the result might have been more favourable.

The second case, admitted last year, was that of a strong, robust man, who was suffering from melancholia, and had previously attempted to cut his throat. He was kept in bed on account of the wound in the throat (which was but slight) with an attendant to watch him day and night, but he was in such a state of panic from the delusion that people were following him, that he on two occasions sprang up suddenly and attacked other patients who were sleeping in the same room, overpowering the attendant in charge, so that I considered the risk to be less in placing him in a single room, and that probably he would be in less dread than when in a room with other patients. He was accordingly placed in a padded room in a bed on the floor, where he rested perfectly tranquil and recovered in a few months.

Of course two cases prove nothing, any more than one swallow makes a summer, but they may be taken as illustrating the advantage of seclusion. In several recent instances I have observed that patients, who when out of doors were excessively excited, rushing about in the wildest manner possible, and were never still for a moment, when placed in seclusion would rest tranquilly, and also take their food better than when taking exercise.

Dr. Wood refers in his paper to a high percentage of recoveries as proving the efficacy of the system of non-seclusion, but I could refer to a still higher rate in an asylum where the number of seclusions was unusually large.

It was a remark attributed, I believe, to Canning, that "nothing was more fallacious than figures except facts," and in asylum statistics a mere statement of the number of recoveries, without any reference to the age,—to the length of

time insane,—and to the nature of the mental affection of the patients admitted, proves very little.

I can conceive it to be quite possible for a physician to abstain altogether from giving any medicine, and yet be able to shew a very satisfactory table of recoveries; but would anyone argue from that that all medicine was useless, and if useless probably actually injurious?

I have thus far treated of seclusion as a remedial agent in the treatment of acute mental disease, and have endeavoured to shew that it is, under proper medical supervision, not only a safe and expedient, but also a rational mode of treatment, and one that it would be very unwise hastily to discard. I will now consider its employment, not so much as a curative agent for the exclusive benefit of patients for whom it is employed, as for the greater comfort and advantages of others.

In cases of recurrent mania, in which destructiveness, violence, and general excitement predominate, its employment is very beneficial, not so much for the patient himself as for the benefit of others. In the case of women especially, who suffer exacerbation at the menstrual period, and whose actions and language are at such times frequently libidinous and obscene, a short period of seclusion, whilst unattended by any detriment to themselves, relieves other patients from much that is extremely objectionable. It is not an edifying spectacle to see an excited female displaying her mental degradation before others; and I know nothing more distressing than to see young and well-conducted girls exposed to the disgusting language and actions, which are, unfortunately, more frequent amongst insane woman than those of the opposite sex. Such exposure cannot but be detrimental to the morals of respectable girls, whose interests ought to be considered as well as the supposed interests of those who are probably beyond the means of cure. Admitting that it is part of the duty of attendants to endure exhibitions so degrading, it cannot be held that other patients should also have to endure this, in addition to their mental affliction, and it is scarcely possible or desirable always so to classify patients as to protect the more innocent from the impurity of the more degraded.

In all establishments where many human beings are congregated together, it will be admitted, I presume, that it is essential for the wellbeing of all that some amount of order and discipline should be maintained, and the common mode of enforcing this is by a system of rewards and punishments.

Now if this is necessary in an establishment of sane

persons, it is equally so in one for the insane, for I presume that no physician, at least, will maintain that because men and women are insane, they are therefore always quite incapable of appreciating the difference between right and wrong.

It is obvious that the means that may be adopted in a public school, for example, for maintaining discipline are inadmissible in a lunatic asylum, and yet, if the turbulent and quarrelsome are to have all their own way, it will be to the injury and disadvantage of the peaceable and inoffensive patients.

The ordinary indulgences that are available in an asylum are inadmissible, either by being granted or withheld, to induce order amongst those disposed to be riotous. In few cases is it advisable to reduce the diet of a patient, and so repressive measures are almost limited to the administration of drugs or to seclusion.

Now to employ drugs as a punitive agency I hold to be a prostitution of medicine, and what I may call the vicarious use of narcotics, viz., giving A, who is excited and noisy, but quite incurable, a narcotic because he disturbs B, is almost as bad; and I maintain that where one patient acts in such a manner as to cause discomfort and annoyance to others, it is perfectly legitimate and justifiable to seclude him or her—of course, under medical authority—for it is idle to assume that any attendant, however good he or she may be, will at all times be able to control all patients who may annoy others, and the alternative suggested of sending every violent patient into a separate airing-court, besides requiring in a large asylum an extensive series of airing courts, and favourable weather for their use, and a large staff of attendants, incurs the risk of personal encounters between attendants and patients which it is always desirable to avoid.

I am unable to perceive the injury, either mental or bodily, that a patient can suffer from short periods of seclusion under medical supervision, and I consider the notion of suppressed mental excitement recoiling on the patient himself as altogether apocryphal.

Some time since a sagacious suggestion was made in a medical journal, that with a view to remedy the supposed delinquencies of Asylum Medical Officers, the Superintendents should be selected from the general ranks of the profession, any special experience being held to be a disqualification, rather than otherwise.

Let us imagine a person appointed as Medical Chief to a large Asylum, who had never seen a lunatic professionally, but who had thoroughly posted himself up in the literature of insanity, and relied on his knowledge acquired by reading to direct his practice.

In the first place he would find that mechanical restraint was held (or professedly held) as an accursed thing, and not to be thought of in the modern treatment of insanity. Then he would hear from an eminent authority, that giving narcotics to put "chemical restraint on a brain cell" was almost as heinous, and that if these improved the bodily condition of a patient, they did so at the expense of the mental; by another writer he would find seclusion consigned to the same limbo as restraint; our novice would be earnestly warned to avoid degrading his mission as a physician by having anything to do with architecture, or high farming; he would be told that hygiene was a thing that anybody could understand, and he would hear from a full chorus that attendants—the agents on whom he would have to rely to carry out his orders—were a degraded class and unworthy of confidence.

It would probably occur to our suppositious Doctor that his strictly medical duties would be rather restricted, and would be limited chiefly to diagnosis, though of pathology he might have his fill; and if he had not a strong will of his own, he might not inaptly compare himself to the man with the ass in the fable, but that instead of losing his donkey he might be almost tempted to wish that he had gone over the bridge himself and down the stream in place of the quadruped.

The liability to *abuse* of any agent or system forms no adequate ground for its rejection, if its *use* can be proved to be really beneficial, and if a man has satisfied himself on sufficient evidence that restraint or seclusion, blood-letting or alcohol, narcotics, purgatives, tonics, or any other mode of treatment is beneficial to his patients, I hold that he ought to act according to his own judgment without regard to the *fashion* of treatment prevailing in his days.

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*Illustrations of the Influence of the Mind upon the Body in Health and Disease, with especial reference to the Imagination.* By DANIEL H. TUKE, M.D., M.R.C.P., late Visiting Medical Officer to the York Retreat.

(Concluded from vol. xviii., p. 197.)

INFLUENCE OF THE INTELLECT CONTINUED.

(III.) *The Intellect may excite ordinary sensations, may suspend them altogether (anæsthesia), or may induce excessive and morbid sensations (hyperæsthesia and dysæsthesia).*

The terse, but comprehensive expression of John Hunter contains in a nutshell the principle which underlies the greater part of the phenomena referred to in this section: "*I am confident,*" he says, "*that I can fix my attention to any part until I have a sensation in that part.*" Müller expresses the fact of the operation of the ideational upon the sensational centres in equally clear terms. "Ideas do not act merely on the motor apparatus by which they are expressed; they as frequently affect the organs of sense, which then present sensorial impressions or images of the ideas." Among other proofs, he gives the instance of a person's teeth being set on edge by witnessing another about to pass a sharp instrument over glass or porcelain; also the production of shuddering by the mentioning of objects which, if present, would excite that sensation; that is, by recollective Imagination. "I cannot think of seeing a slate rubbed with a dry sponge;" remarks Herbert Spencer, "without there running through me the same thrill that actually seeing it produces."

If twenty persons direct their attention to their little fingers for five or ten minutes, the result will probably be something like this: A few will be unconscious of any sensation in this member; some will experience decided sensations—aching, pain, throbbing, &c.; and the majority will feel a slight sense of weight and tingling. This simple experiment raises several questions, as, Might sensations always be felt in the part, from the changes which are constantly going forward in the tissues, but are unobserved except when the attention is directed to them? Or, does the act of Attention excite increased vascularity of the sensory ganglia, and cause subjective sensations? Or, lastly, do the sympathetic centres

become excited, and the vaso-motor nerves influenced, so as to cause temporary vascular changes in the finger which involve sensation? The first supposition does not seem probable, except to a very slight extent. If correct, we should always feel some sensation in the finger when consciousness is directed towards it. We think both the remaining suppositions have weight. Probably the feeling experienced is partially subjective; but we believe there is a real effect produced upon the finger if Thought is sufficiently long directed to it, and that these vascular changes are felt in the form of throbbing, weight, &c. Others are more likely to be subjective.

Professor Gregory reports one of those frequent cases in which, by suggestion, "the subject" experiences a variety of sensations. "One arm was deprived of sensation, or both arms, or the whole frame. He was made to feel a knife burning hot, and the chair on which he sat equally so. When he started up he was made to feel the floor so hot that he was compelled to hop about, and wished to pull off his boots, which burnt him. He was made to feel the room intolerably warm, and actually perspired with the heat; after which he was made to feel it so cold, that in a minute or two he buttoned his coat, and walked about rubbing his hands. In about five minutes his hand was really chilled, as I found, like that of a person exposed to frost" ("Letters to a Candid Enquirer," p, 353).

Mr. Braid in investigating the alleged discoveries of Reichenbach in regard to the Od force, found that in nearly all cases, even when the person had not been hypnotised, drawing a magnet or other object slowly from the wrist to the point of the fingers produced various effects. Among these were "a change of temperature, tingling, creeping, pricking," while, when he reversed the motion, "it was generally followed by a change of symptoms, *from the altered current of ideas then suggested*. Moreover, if any idea of what might be expected existed in the mind previously, or was suggested orally during the process, it was generally very speedily realised. The above patients being now requested to look aside, or a screen having been interposed so as to prevent their seeing what was being done, if they were requested to describe their sensations during the repetition of the processes, similar phenomena were stated to be realised when there was nothing whatever done beyond watching them, and noting their responses." His son, Dr. Braid, who assisted his father in his experiments, remarks in a letter to myself a few years ago, "certainly the first

results would have misled anyone who was not accustomed to sift such matters."

Attention directed to the stomach notably causes a sensation of weight, aggravating or even originating dyspepsia. Discomfort, a sense of tension, and other forms of sensation may, everyone knows from experience, be induced in the several abdominal organs.

Probably no simpler example could be given of the morbid effect of Imagination on the body, in its recollective form, than the following common occurrence:—A child says, "thinking of that powder almost makes me sick." In fact he experiences nausea from no physical agent, but solely from the representative idea thereof in his mind. But for our familiarity with the fact, it would greatly surprise us that such should be the case.

Squeamishness is frequently caused by Attention and by other allied mental states. Marshall Hall mentions a person who could not attempt to untie a small knot without a sense of nausea.

We witness in the following instance the curious effect of what is usually called Association of Ideas :

Gratiolet relates of himself that when a child his sight became affected, and he was obliged to wear spectacles. The pressure which their weight exerted upon the nose was so insupportable that he was obliged to discontinue their use. Writing twenty years after, he says that he never sees anyone wearing spectacles, without instantly experiencing, very disagreeably, the sensation which had so much disturbed him as a boy.

When visiting the Crystal Palace some years ago it struck the writer that the man who then had charge of a galvanic battery could tell something about Imagination. I was not mistaken, for he assured me that very often when a lady had grasped the handles of the machine, she remarked on the peculiar sensations she experienced, and quite thought she was being galvanised, although he had not put the battery in action. But it is, in fact, perhaps equally deserving of notice, that such subjective impressions may, as in the present instance, have a limit to their operations, for the galvanist stated that he had never observed any twitching of the hands from these imaginary shocks.

*Anæsthesia.*—Insensibility to bodily pain, artificially induced, without drugs and solely by psychical means, is a most interesting and important fact, and would require a section

instead of a few paragraphs to do it justice. No one who has studied the history of anæsthetics \* in all forms, doubts that, whether by inducing a profound and peculiar kind of sleep, or by merely rendering the patient insensible to sensorial impressions related to a certain idea or train of ideas, severe as well as trivial operations may be performed without any pain. †

In regard to the *special senses*, the influence of the mind is notorious. The state of the mind—the condition of the cerebral hemispheres—may play upon the ganglia of the senses so as to produce certain sensorial phenomena, and also may so affect the sensorium that impressions upon the senses received from the outer world may be modified in various ways. We cannot adopt Hunter's expression "the idea of a sensation is supposed to be the sensation itself," for there is a sensation, although subjective. When there is actual hallucination (amounting to insanity), we may say the idea of a sensation having induced such intensity of action of the sense ganglia, as to cause the same effect as if excited by a material object, is supposed to be a sensation caused by an objective impression.

There is a striking observation made by St. Theresa, whom M. Maury characterises as the metaphysician of feminine mysticism and of ecstatic illumination; namely, "I have known some of weak mind who imagine they *see* all that they *think*, and this," she adds, "is a very dangerous condition." One practical reflection may, in passing, be made upon the ecstasies to whom she refers. It would be much more difficult to believe in the credulity of the saints and mystics,

\* It is a remarkable fact that in all, or nearly all histories of anæsthetics, *psychical* anæsthetics are not even mentioned. Yet they preceded drug-anæsthesia, and to a large extent suggested it. Cloquet removed a woman's breast, during the mesmeric sleep (she being able to converse, but insensible to pain), so far back as 1829. It is said that no fatal case from psychical anæsthesia has occurred.

† *Vide* Remarks by the writer on the occasion of Dr. Elliotson's death, in the "Medical Times and Gazette," August 29th, 1868. Since writing the above I observe the following in one of the public journals. I cannot vouch for its truth. "Dr. Gull, in 1847, questioned the desirability of removing pain. Bransby Cooper was 'averse to the prevention of suffering,' which, as he thought, led to 'reparatory action.' 'Pain,' argued Mr. Nunn, in one of the London medical organs, 'is compensated for by the effects produced on the system;' and a Dr. Pickford wrote that 'pain during operations was beneficial;' while Majendie—he who said to the writhing dog, 'Taisez-vous, mon petit!'—declared in the French Academy that 'it was trivial to suffer, and that an invention to annul pain under the knife was only of mediocre interest to surgery.'" From this point of view, freedom from pain in a future world would be rather a disadvantage than otherwise.



if we did not see ample physiological reasons for believing that the senses were really acted upon by their intense thought on certain spiritual subjects. They knew nothing of the action of Expectation or Imagination upon the sensorium. We know to what source Luther referred his visions, even when they were such as we might have supposed he would welcome. In the following instance, one cannot attribute the influence of the brain to either of the above-mentioned states of mind, and it is, therefore, a specially interesting example of automatic cerebral action, excited by an idea vividly present in the mind. "On Good Friday last," he says, "I being in my chamber in fervent prayer, contemplating with myself how Christ, my Saviour, on the cross suffered and died for our sins, there suddenly appeared upon the wall a bright vision of our Saviour Christ with the five wounds, steadfastly looking upon me, as if it had been Christ himself corporeally. At first sight, I thought it had been some celestial revelation, but I reflected that it must needs be an illusion and juggling of the devil, for Christ appeared to us in His word, and in a meaner and more humble form, therefore I spake to the vision thus:—Avoid thee! I know no other Christ than He who was crucified, and who in His word is pictured and presented unto me. Whereupon the image vanished, clearly showing of whom it came." ("Table Talk," p. 104.)

Now in such a case as this, while we do not think it necessary to assume more than an excitement of the sensory ganglia, Müller would have held that there was an image impressed on the retina excited by internal, instead of, as normally happens, by external stimuli. In his section on the "Influence of the Mind upon the Senses," he objects to the term hallucination being applied to such experiences, because it implies that the phantasm is a mere idea, instead of being truly a sensation. This objection is, of course, equally forcible, whether we regard the retina (in the case of vision) or the central ganglia, as the seat of the phenomenon.

Müller's remark, when referring to those cases in which extirpation of the eye co-exists with phantasms, that they "prove that the presence of the retina is not a necessary condition for the production of such phenomena, but, on the contrary, that the deeper seated parts of the essential organ of vision are alone required" is an admission sufficient to allow of all other instances of spectral phenomena from subjective causes being referred to the sensory ganglia and

central nuclei of the optic nerve. Luther's mode of accounting for the vanishing of the apparition is an amusing contrast to the description given by Müller of phantasmata witnessed by himself on waking. "I have myself," he says, "very frequently seen these phantasms, but am now less liable to them than formerly. It has become my custom, when I perceive such images, immediately to open my eyes and direct them upon the wall or surrounding bodies. The images are then visible, *but quickly fade.*" So prosaic a narrative of events would have hardly suited the fervent imagination of the great Reformer.

Unusually vivid sensations from external objects occasioned by cerebral excitement at the time will, as we have frequent proofs, remain, or be easily recalled, long after the original impression was received. This was strikingly shown in the experience of one of the survivors of the unfortunate "London." When escaping from the wreck, in the boat, he would sometimes be baling out the water and half asleep at the time. When in this state he could often see a vessel before him with her stern under water, her jibboom and fore-topmast gone, and her foresail shaking in the wind. "It was the 'London' as she last appeared to me. At any time during the night if I were to close my eyes, if only for a second, the ship was always before me *in this form.*" And after being picked up by the barque next day, and able to have some sleep, he says, "and a troubled sleep it was. I passed through all the horrors of another shipwreck; and for many nights after, and I may say many weeks after, I had to go through the same ordeal." The phenomena are of a mixed character in these cases. The mental condition, no doubt, originally determined the intensity of the sensations which led to the subsequent spectral ship; but in his sleep, the writer's sensory ganglia excited the activity of the cerebral hemispheres; sensation excited a corresponding train of ideas.

The simplest example, perhaps, which can be adduced of the influence of Attention upon the sensory ganglia, is the act of recalling a visual impression, even after a long interval of time. Thus, Sir Isaac Newton, in a letter to Locke, describes how he once looked a short time at the sun in a mirror, and then turned his eyes into a dark corner of his room till the spectrum vanished, repeating the experiment three times. The third time he found to his amazement, when the light and colours were almost gone, that they began to return "by intending his fancy upon them," and became as vivid as when

he had just looked at the sun, but if he ceased to intend his fancy upon them, they vanished again. "After this," he says, "I found that as often as I went into the dark and intended my mind upon them, as when a man looks earnestly to see anything which is difficult to be seen, I could make the phantasm return without looking any more upon the sun, and the oftener I made it return, the more easily I could make it return again." At last he brought his eyes "to such a pass" that he had to shut himself up in a dark room for three days together "to divert my Imagination from the sun; for if I thought upon him, I presently saw his picture, though I was in the dark." By this method, and employing his mind about other things, he began in a few days to have some use of his eyes again. Yet for some months after, "the spectrum of the sun began to return as often as I began to meditate upon the phenomena, even though I lay in bed at midnight, with my curtains drawn." When Newton wrote this interesting account to Locke, he said he had been several years very well, but he thought that he could recall the spectrum "by the power of his Fancy," if he durst try. He adds, that such a recurrence involves a question "about the power of Fancy," which he confesses is "too hard a knot for me to untie," but inclines to refer it to "a disposition of the sensorium to move the Imagination strongly, and to be easily moved, both by the Imagination and by the light, as often as bright objects were looked upon." Another remarkable observation was made by Newton in this case. He had only looked at the sun (in the mirror) with his right eye, yet he found that "my Fancy began to make an impression on my left eye as well as upon my right," and he could see the spectrum of the sun if he did but intend his Fancy a little while upon it. So that here the powerful direction of Thought or Attention produced the same effect on the left eye, or a point in the optic ganglia corresponding thereto, as that of the sun itself upon the right eye.

A man has his mind so far awake during sleep as to dream of a figure; either one which has formerly impressed his retina and sensorium, or which he never saw, and is the product of his Imagination. That his sensory ganglia at least have been in activity, as well as his cerebral lobes, is indicated by the occasional persistence of the phantom after awaking from the sleep in which the dream has occurred. Müller referred to this fact to prove that the retina is acted upon by the activity of the brain or mind in sleep, but we

need not go further than the sensorium. The idea has been transmitted there—an ideo-sensory action.

The next case, given by Brodie, illustrates these remarks. He gives it as a proof that in visions connected with our dreams, there is something more than what occurs in the instance of objects ordinarily presented to our minds by Memory and Imagination. What this "more" consists of is not decided by Brodie, and its decision must depend upon whether we hold that in the operation of these faculties the same brain-tracks (sensory ganglia) are excited as in the production of actual phantoms, the only difference being one of intensity; or, that the cerebral hemispheres only are in operation. "A friend of mine on awaking in the morning, saw standing at the foot of his bed a figure in a sort of Persian dress. It was as plainly to be seen, and as distinct, as the chairs and tables in the room, so that my friend was on the point of going up to it, that he might ascertain what, or rather who, it was. Looking, however, steadfastly at it, he observed that, although the figure was as plain as possible, the door behind it was plainly to be seen also, and presently the figure disappeared. Considering the matter afterwards, he recollected that he had had a dream, in which the Persian figure played a conspicuous part; and thus the whole was satisfactorily explained, it being evident that the dream, as far as this part of it was concerned, had continued after he was awake, and so that the perception of the imaginary object had existed simultaneously with that of the real ones."

Anæsthesia of the special senses in regard to all impressions from without, except those with which a person from some particular cause is in relation, is strikingly exhibited in "biological" or hypnotic states. Thus a subject may be deaf to all sounds except the voice of the operator. Sir James Simpson pointed out this fact, years ago, at a meeting of the Edinburgh Medico-Chirurgical Society. He observed that such persons "were deaf for the time to other sounds. Bells may be rung in their ears, strong noises of all kinds made, tickling, shaking, rubbing the cornea, &c., practised, but they sleep on, apparently listening alone to the voice that sent them asleep to summon them again to the wakening state."

It may be that in such cases it can hardly be said that the cerebral hemispheres act upon the sensory ganglia so as to produce this effect, and that it is rather that the impressions which reach the sensorium are not perceived by the mind, unless they be directly related to the idea or ideas which are

at that time dominant. Still, the state of the Intellect determines the effect of the sensorial impression. This condition is exemplified also in cases of ordinary sleep, absence of mind or abstraction, day dreaming or reverie, as well as in the somnambulistic states just referred to.

In the case of Sir Edward Codrington, given by Carpenter ("Human Physiology," p. 855), both the cerebral hemispheres and the sensory ganglia must have been in a state of profound repose, but there existed an impressibility as regards a particular idea ("signal"), and this idea aroused the influence which, according to Mr. Moore, controls the sympathetic ganglia, and through which the vessels of the brain fill again. Dr. Carpenter expresses it thus: "The awakening power of sensory impression is greatly modified by our habitual state of mind in regard to them. Thus, if we are accustomed to attend to these impressions, and our perception of them is thus increased in acuteness, we are much more easily aroused by them than we are by others which are in themselves much stronger, but which we have been accustomed to disregard,"

A curious illustration of the influence of the Imagination in modifying the perceptions of sensorial impressions derived from the outer world, occurred during the conflagration at the Crystal Palace in the winter of 1866-7. When the animals were destroyed by fire it was supposed that the chimpanzee had succeeded in escaping from his cage. Attracted to the roof, with this expectation in full force, men saw the unhappy animal holding on to it, and writhing in agony to get astride one of the iron ribs. It need not be said that its struggles were watched by those below with breathless suspense, and, as the newspapers informed us, "with sickening dread." But there was no animal whatever there, and all this feeling was thrown away upon a tattered piece of blind so torn as to resemble, to the eye of fancy, the body, arms, and legs of an ape!

In the following case within my own knowledge the visual illusion was clearly excited by the idea being, in the first instance, present to the mind. A lady was walking one day from Penryn to Falmouth, and her mind being at that time, or recently, occupied by the subject of drinking fountains, thought she saw in the road a newly erected fountain, and even distinguished an inscription upon it namely—

**"If any man thirst, let him come unto me and drink."**

Some time afterwards she mentioned the fact with pleasure to the daughters of a gentleman who was supposed to have erected it. They expressed their surprise at her statement, and assured her she must be quite mistaken. Perplexed with the contradiction between the testimony of her senses and of those who would have been aware of the fact had it been true, and feeling that she could not have been deceived (for "seeing is believing"), she repaired to the spot and found to her astonishment that no drinking fountain was in existence—only a few scattered stones, which had formed the foundation upon which the suggestion of an expectant Imagination had built the superstructure. The subject having previously occupied her attention, these sufficed to form, not only a definite erection, but one inscribed by an appropriate motto corresponding to the leading idea.

In our ordinary language, we give the senses a worse character than they deserve. They report correctly on various occasions, but we draw an incorrect inference or read their reports in a hasty or slovenly manner. It is only when the sensory apparatus is diseased in the first instance that we can properly speak of the senses deceiving us. The common reply to this apology for our senses is that in many instances, as in that of the oar which, although entire, looks broken in the water, our senses even in a healthy condition mislead us. A little consideration, however, will show that our senses are not really at fault even in this instance, and that if we arrive at a false conclusion, it is the result of our not making allowance for an intervening medium between the eye and the oar. Who would blame the eye because it could not have seen the oar at all, had there been a stone wall in the way? As unfair would it be to charge the eye with deception because its function is interfered with and distorted by an intervenient fluid. The child believes the oar broken because he has not yet learned the effect produced by the refracting power of water. Ignorance is the cause of an erroneous belief; the water the cause of the appearance of the oar; the organ of sight must be acquitted of all blame.

As regards the sense of hearing, it is very manifest that the thought uppermost in the mind—the predominant idea or expectation—makes a real sensation from without assume a different character. If of two children listening to a peal of bells one is told that they say "Long live the King," and the other, "Never, for ever," to each the chime may sound as he expects to hear it. But, of course, those instances are much

more striking in which the expectation excites the central termination of the auditory nerve, so that sounds, voices, &c., are actually heard. The Imagination may be justly said to be the cause, but it is no Imagination that sounds are heard. The fine passage of Madame de Stael, "So mighty sometimes is the power of Imagination that by it we hear in our hearts the very voice and accents of one whom we love," is true in a more literal sense than probably she intended.

The influence of Attention in intensifying auditory sensations is constantly brought under our notice. The Highland woman hearing the distant pibroch when Havelock was approaching to the relief of Lucknow is a beautiful illustration of the familiar fact that the intense direction of the thoughts to a particular sensation increases the sensitiveness of the sensorium.

So with the sense of taste.

With imaginative people, the food eaten or the fluid drunk assumes a very different taste according to the fancy. Misled by Expectation, the grumbler finds the meat taste bad, the water abominable. I have known a gentleman, hopelessly fanciful, send out the cream from table because it tasted sour, and find it sweet when the servant brought in what was supposed to be, but was not, a fresh supply.

In concluding this Section, I wish to revert to the states of mind in Recollection and Imagination in connection with the vexed question of the character and seat of resuscitated mental images.

It is disputed, as regards the ordinary memory of an object or the creations of the Imagination—re-presentative consciousness—whether the same psychical or encephalic condition is excited as in the actual perception of an object present to the senses—presentative states of the Mind. It is obvious that the answer to this question is of great interest in the consideration of the influence of ideal psychical states upon the body, whether intellectual or emotional. The teachings of psychologists of the present day appear decidedly to favour an affirmative reply.

Abercrombie's work on the "Intellectual Powers" elicited a remarkable review in the "Quarterly" for July, 1831, from the pen of Sir David Brewster, who combated the idea that in Memory and Imagination the mind recalls past impressions and forms fresh combinations, "without any assistance from the organs of perception," and maintained that while in the ordinary action of these faculties, owing to the exceedingly

fleeting character of the mental images produced, and the counteracting influence of the external world, we cannot fix and subject them to examination, there are exceptionally favouring circumstances which render it possible to examine them as carefully as impressions made upon the retina by luminous bodies, and that in these cases the images recalled by Memory, or created by Imagination, "follow the motions of the head and eye." This he explained by supposing that the recollection of an object previously seen, acts by retransmission from the brain along the nerves to the same points of the retina as had been acted upon by the original object, when the impression there had been transmitted to the sensorium. A very faint and transient impression was supposed by him to be formed on the retina, just sufficient for the purposes of memory and imagination. If, moreover, these faculties are powerful, and the nerves excitable, the retinal impression becomes so distinct as to constitute a spectral illusion. Brewster's general conclusion was this, that "in all our organs of sense the mind possesses the power of retransmitting through the nervous filaments to the expansion of the nerves which are acted upon by external objects, impressions which these nerves have previously transmitted to the brain," feeble in ordinary Memory and Imaginary, brilliant and phantasmatic in abnormal states of the brain or nerves. If for the peripheral expansion of the sensory nerves we substitute the sensorium, or whatever that portion of the brain may be in which impressions are registered, Brewster's opinion is in accordance with that to which we have just referred. His proofs are not altogether satisfactory, for, in the first place, the examples he adduces are not those of ordinary Memory or Imagination; and, secondly, as regards actual phantasms, the fact that they move with the eye may be explained on another principle than that of referring the revived impression to the external organs themselves.

At first sight, simply to think of and recall the face of an absent friend, and so to think of him as to see his face projected as if present before me, do certainly seem very distinct psychical, and therefore encephalic, conditions, not only in degree or intensity, but in kind and seat. The one operation feels to be so purely "mental," the other so sensorial. That subjective sensations and objective sensations occupy the same seat cannot be doubted; but the difficult question is, whether the definite remembrance of a particular object passing beyond a mere notion does, or does not, cause a true



sensation, however faint. It is easy to believe that the seat of a spectral form of a mountain is identical with that of the conscious impression of the actual object when present to the senses, but not so easy to believe that in recollecting a certain mountain, and tracing its outline, or imagining one, "we are repeating the same currents and reanimating the same nervous tracks as in the survey of the actual mountain" (Bain). In opposition to this hypothesis it is urged\* that perception is a *bi-une* fact, or a synthesis of cognition and object, while Memory and Imagination are not so, for the object is not present to them. It is denied that seeing a rose and the remembered outline of a rose involve the same operation of mind—the only difference being, as alleged, one of intensity. Dr. Carpenter, on the other hand, speaks of "ideas or conceptions as cerebral (*i. e.* hemispherical) states, which seems to recall the same condition of the sensorium as that which was originally excited by the sensory impression" (Human Physiology, p. 749). It is true, I can think of a rose, have a bare abstract notion of it, without any action of the sensorium, but it may nevertheless be true that the moment it is figured in the mind's eye, although no spectrum or phantasm is formed, there occurs a change in the optic nerve-centre—the corpora quadrigemina. Still, we think, it is practically difficult to decide at what point the strictly ideational passes into the sensational.

Mr. G. H. Lewes, in an article in the "Fortnightly Review" (February, 1872) on "Charles Dickens," states an interesting fact in reference to his brain-fictions, namely (what the novelist had himself told him), that "every word said by his characters was distinctly *heard* by him. I was at first," he adds, "not a little puzzled to account for the fact that he could hear language so utterly unlike the language of real feeling, and not be aware of its preposterousness; but the surprise vanished when I thought of the phenomena of hallucination." Such instances may be thought to support the above view, that the creations of the Imagination, and the images recalled by the Memory occupy the same nervous tract as those which are excited by impressions from without, and that they only require additional intensity to become what are admitted by all to be (subjective) sensations possessing the distinctness which ordinarily characterises those of objec-

\* See this position ably maintained by Rev. W. G. Davies in this Journal for April, 1864. See also the observations of Dr. L. Clarke in the "Psychological Journal," January, 1863, p. 19.

tive origin. At any rate, they show how great a tendency mere thought has to excite or awaken the correlated sensation. Dickens also says, in regard to his sister-in-law Mary, that after her death he was haunted by her image every day, and dreamt that he saw her every night for a year. He does not mean, we suppose, that he saw a spectral form in the day—merely a vividly defined and irrepressible memory of her person. In the dream, when the outer world was excluded, the very same image presented all the characters of a sensorial impression.

Just, then, as in perceiving objects around us, subject-consciousness and object-consciousness are united, sensorial perception passing insensibly into intellectual perception; so in Recollection and Imagination, the ideational and sensational changes are almost inseparable; the calling up of the one state as originally excited by external objects, calls up the other; and in this way the old paths are traversed, though in a reverse order. It may, however, be admitted, we think, that the original idea which was abstracted from the sensorial perception *can* arise in the mind, or be recalled as a general notion, without the action of the sensory centres being excited.

The application of this position to the influence of ideal states of mind is obvious; whether they excite by their intensity and vividness general bodily sensations, or such action of the sensorial centres that the mind refers the special sensations to objective sources of excitement; whether they cause movements, or whether they act upon the organic functions. Whatever hypothesis we adopt, the fundamental fact remains, that Sensation and Motion are not merely more readily reproduced by the original impressions being repeated, but may be reproduced without our having the slightest recourse to the original, so that we may breathe an atmosphere in which the body feels, the eye sees, the ear hears, the nose smells, and the palate tastes, as acutely as if the material world excited these sensations, and may perform muscular actions without, and even against, the Will, and with or without consciousness, solely in response to ideas, whether recalled by the Memory or created by the Imagination. There may be here two distinct series of automatic phenomena—the involuntary representation of single or combined presentations, and the involuntary results in Sense and Motion—ideo-sensory and ideo-motor; the common centre acted upon by objective impressions from without and by subjective impres-

sions from within, being the sensorium, and the resulting sensations and motions being in many instances as powerful from the latter (the inner) source as from the former, and in some instances more so.

The following are the most important conclusions in connection with the Influence of the Intellect on Sensation :—

1. When ideas arise from the sensorial perception of impressions upon the peripheral terminations of the various classes of nerves, they may react upon the sensory ganglia, and influence general, special, organic, and muscular sensations, causing sensational illusions.

2. When, through intellectual operations, ideas are imagined or recalled, these may be merely ideational states, but they ever tend to become identical in character, though not necessarily in degree, with the complex states formed when peripheral impressions from external objects first excited them. The recurrence therefore of the ideational state co-operating with the sensory ganglia, usually recalls also, although but faintly, the sensation corresponding to the idea.

3. In some conditions of the encephalic centres, such a powerful excitement of the sensory ganglia occurs, that the effect is identical in sensory force—in objectivity—with that which results from an impression produced upon the peripheral termination of the nerves, causing hallucinations or phantasmata.

4. The mind under certain circumstances can, by Attention, recall the sensorial impression so distinctly as to produce, *e.g.*, in the case of sight, the spectrum or image which was impressed on the retina and perceived by the sensorium.

5. Not only may hyperæsthesia of one or more of the senses be produced, but complete anæsthesia be caused by psychical means; encephalic vascularity and innervation being increased or lessened in the several sense-centres.

(IV.) *The Intellect may powerfully excite, modify, or suspend the Organic Functions, causing changes in nutrition, secretion, and excretion, and thereby affecting the development and maintenance of the body.*

The consideration we have given to the influence of Thought or Intellect, in its various aspects, upon the muscles engaged in the vascular and respiratory systems, has, at the same time, exhibited to a great extent its action upon the functions of organic life. The part played by the involuntary muscles in the processes of secretion and nutrition is so important that the two cannot properly be separated, and the present is in fact a continuation and supplement of the section in which this was considered.

As mental activity affects the respiration, and the circulation and aërication of the blood, its influence on secretion and nutrition might be predicated even without proceeding more deeply into the causes of this influence.

Illustrations of the influence upon Secretion, of ideas—the representative states of consciousness which Imagination, both in its recollective and constructive or creative form, comprises—will readily occur to the reader. Unzer expresses the truth very clearly. “Many glands pour out their secretions from Imaginations.” The mental image or idea must, of course, be in relation to the secreting organ.

The salivary glands are so notably affected by ideas that they are frequently referred to. We know that the mere idea of food is sufficient to excite the function of these glands. To procure sufficient saliva for his experiments, Eberle vividly imagined acid fruits. If a teaspoonful of coloured water be placed in the mouth under the impression that it is tincture of pellitory, the amount of saliva will be considerably increased. In the hypnotic state this would be still more effective. Just as spasms or convulsions are more likely to happen when the will is suspended and the cord acts independently, so when the controlling power is removed from the brain, its automatic action is intensified, and ideas exert much more power over the organic functions when directed towards them. There is a constant antagonism between voluntary and involuntary actions, and when anything occurs to neutralise the former, the latter rules the hour. One reason why the Emotions act so much more powerfully upon these functions is, because they are less under the control of volition than the intellectual faculties are, besides being probably in much closer anatomical relation with the nervous centres which influence the vascularity of the secreting glands.

The influence of Attention on the mammary glands is well recognised. The case of a lady is recorded by Dr. Parry, who, after the period of nursing, was accustomed to have milk secreted whenever she heard a child cry. Reflex action of the encephalic centres specially related to the organic functions is here well illustrated.

As regards the secretion of the liver, we may refer here to what is called a “bilious headache” when brought on by over-work at the desk. Anyone given to study can trace such an attack from its earliest stage. Dr. Latham, of Cambridge, in a Clinical Lecture on Nervous or Sick Headaches (*Brit. Med. Journal*, 1872), states that he meets with a great many

cases (sufficiently severe to require treatment) both in males and females, but "perhaps in an University town, owing to the large proportion of individuals of studious and sedentary habits, it may be more prevalent among males than in other places." The attacks he refers to were brought on by "prolonged mental work, protracted mental excitement, or any intense strain on the feelings." That the attack may come on during actual work, and be arrested by suspending mental application, we have ample evidence to prove. It is, however, true that, if there is actual mental excitement, "the attack may not be developed during the paroxysm, but afterwards, when the excitement has passed off, and the mental strain is somewhat lessened." He marks two stages—one of disordered sensation, including glimmering, spectral forms, and other signs of visual derangement, tingling in some portion of the body, as the arm or one side of the tongue, affections of hearing and (involving the motor centres) speech, and loss of power over the facial muscles; the other of headache and nausea, which so often occur with the sensorial disturbances, the chief symptoms being cold feet, restlessness, and the localised, more or less piercing pain felt in the head, especially (so far as our observation goes) over the left eyebrow. Dr. Latham's cases were generally marked by anæmia, a relaxed condition of the muscles and arteries; the pulse small and compressible, often slow, but accelerated on slight exertion; the general tone of the system, in short, being lowered. The headache he considers explained by the contraction of the cerebral vessels in the first instance being followed by their dilatation; the vaso-motor nerves of the sympathetic being first excited, and then exhausted.

The secretion of gastric juice is, in all probability, increased by the idea of eating. It would be difficult, however, actually to prove it.

In like manner, thought acts upon the secretory functions of the skin, kidneys, and the intestinal glands. Hence ideal diaphoretics, diuretics, and purgatives, exclusive of those which excite the peristaltic action of the intestines.

The influence of intense study, long continued, in causing diabetes will not be questioned. In one of the most rapid cases which have fallen under our notice, this was apparently the cause. Dr. Richardson refers in this journal (1868) to three cases "in which the first excretion of sugar and the profuse diuresis were sequential to severe mental strain," and

observes that "they constitute a hopeless class; the danger sudden, the course rapid, the fatal end sure."

In the "Medical Times and Gazette," Oct. 10th, 1868, are given the results of an examination by Dr. Byasson of the renal secretion passed under the opposite conditions of repose and cerebral activity. They may be thus summarised:—

1st. The exercise of thought was followed by an increase in the amount of urine. The number 1157 represented the quantity in cubic centimètres on the days of repose; 1320 on those of cerebral activity.

2nd. The amount of urea was augmented in a marked manner (indicating increased disintegration), there being about a drachm more on the day of cerebral work than on that of repose. Dr. Byasson does not doubt the contrast would be greater if complete repose had been secured. "The experiments were so arranged that a day devoted to brain-work sometimes succeeded a day of repose and sometimes a day of muscular work, and in each case there was a perfect concordance in the results."

3rd. A slight but uniform increase in the amount of the phosphates and sulphates. Anhydrous phosphoric acid is represented on the day of repose by 1.51, and on the day of active thought by 1.98.

4th. The density, the acidity, the uric acid, lime, magnesia, and potash, were scarcely affected. Chlorine was less in amount.

Dr. Byasson says that he can tell by a single analysis of the urine whether a man has passed the day in repose, or active thought, or muscular exertion, supposing the diet to have been uniform and the external conditions similar during three days so employed.

Passing on to Nutrition, a few observations may be made upon the unquestionable influence excited by intellectual states. As nutrition only occurs when the vital force is more powerful than the opposing chemical forces, whatever in mental action lowers vitality, will proportionately interfere with nutritive processes.

Intense mental application may be said to interfere with nutrition in one form or other. In determining, however, the general ill-effect of study upon the body, it is impossible accurately to disentangle its influence from that of loss of exercise, fresh air, &c. But that it interferes with nutrition in many instances cannot be doubted; sufficiently so to justify the oft-quoted line from Shakespeare respecting Cassius's

lean and hungry look, "He thinks too much." Still it is rather the plotting thought—the studying the overthrow of inconvenient rivals—that is here referred to, which wears away the flesh, and which justifies the expression that "such men are dangerous." On the other hand, the removal of the means of study when the intellectual pursuits have become a habit, is detrimental to health.

Descuret devotes a chapter to the "Mania of Study," and cites Rousseau's exaggerated expression "The man who thinks is a depraved animal," which he paraphrases "The man who thinks too much depraves his constitution," and enumerates among the consequences of extreme mental exertion, gastritis, enteritis, hæmorrhoids, cancer of the stomach or intestines, and chronic affections of the urinary organs.

Whatever may be the injurious influence of mental work, the age to which many eminent thinkers have attained shows, at least, that it is not inconsistent with longevity, although from disuse the muscular system may become wasted.

In some of the cases usually given, however, it must be remembered that, though life was prolonged, the organ of mind itself was completely worn out.

"With curious art, the brain, too finely wrought,  
Preys on itself, and is destroyed by thought."

Madden, in his "Infirmities of Genius" (quoted by Dr. Sweetser), has endeavoured to estimate the relative longevity of different classes of authors. The natural philosophers in his table are at the top, their age averaging 75. The poets are at the bottom, who average 57. Caspar gives the average age of clergymen at 65; merchants, 62; clerks, farmers, 61 each; military men, 59; lawyers, 58; artists, 57; medical men, 56. It is obvious that the element of which we are in search is only one of many in these various occupations. It might be expected that, as appears above, medical men would be shorter lived than clergymen, without reference to mere brain work; taking the deaths, however, of twenty-two distinguished members of the former profession in England in 1870, their ages ranged between 75 and 76. As to the natural philosophers (mainly mathematicians) and poets, whether or not statistics comprise a sufficient number of cases, it is highly probable that the greater longevity of the former is a fact. If Wordsworth is a marked exception, he is also exceptional in the character of his poetry. He was more philosophical than emotional. Everything goes to

prove that purely intellectual pursuits influence the organic functions much less powerfully than pursuits involving the passions. It shows the necessity of distinguishing between different forms of mental manifestation; the much closer connection which some mental processes have with the bodily organs than others; the far greater tendency some have to interrupt and suspend their operation than others. Thus, it is obvious that Sir Isaac Newton's intense concentration of thought did not imperil the action of the heart, while John Hunter's intense indignation suspended its action. All forms of disease are indiscriminately laid at the door of study by Tissot—namely, gout, tumours, aneurisms, inflammations, scirrhusities, ulcers, dropsies, baldness, apoplexies, convulsions, &c.; but it would be altogether opposed to medical experience to assert that the chances of inflammation or aneurism, and apoplexy or convulsions arising from study, are equal. An aortic aneurism or a dropsy is much more likely to result from passion or other sudden emotional action than from thought.

Under this division reference should be made to the influence which we cannot doubt that mental states may, under favourable circumstances, exercise upon absorption. Professor Laycock has maintained "the possibility of a lymph deposit being absorbed from an opaque cornea by the daily direction of the Attention to the part for a prolonged period by means of mesmeric passes" (*"Brit. and For. Med. Rev.,"* Oct., 1851). If this be so, we have a fact, the principle contained in which forms a most important basis for the practical treatment of some diseases. It is in entire accordance with the physiological law laid down by Müller: "An idea that a structural defect will certainly be removed by a certain act increases the organic action of the part" (*"Physiology,"* p. 1396).

In concluding the consideration of the Influence of the Intellect upon the Body, it is important to have clearly in view:—

1. Intellectual States, the result of impressions made upon the senses from without, or consisting of purely ideal states, whether these be formed by recollective or creative Imagination (the simple remembrance of sensations excited by the outer world, or so combined as to construct new forms), cause Sensation, Motion, and important changes in the Organic Functions of the body.

2. These ideal states may be as vivid and operative as if actually induced by real objects acting directly upon the sensory nerves.



3. In the ideal states, the bodily changes correspond to the ideas present in the mind, and are themselves involuntary; illustrating the automatic action of the hemispheres upon the sensory, motor, and sympathetic centres.

4. The Muscular movements which express mental states (gesture language), correspond in great measure to those movements which arise from impressions from external stimuli on the peripheral expansion of sensory nerves. They are figurative, and hence verbal expressions also are applied in common to both; in the one case intended to be literal, in the other metaphoric. This analogous language, thus applied to ideal and actual states, may either be explained on the principle that the encephalic seats of both are identical, or that ideational changes always tend to pass downwards to the motor and sensory centres.

5. In both mental states—the ideal and that excited by sensible objects—the Sensorium may be placed in exactly the same condition, both as to kind and degree of change, the stimulus proceeding from within, in the one case, and from without in the other; the mind in the former instance always referring the sensation to the peripheral end of the nerves.

We now conclude the series of papers having for their object the illustration (by cases) of the Influence of the Mind upon the Body, more especially with the view of showing thereby how great is the influence of what is usually called the Imagination, directly and indirectly, upon our sensations, movements, and organic functions. The practical inference seems obvious—apart from teaching us to avoid its maleficent effects—that if such important changes can be induced in health, the same agency rightly directed might and ought to be beneficially employed in disease. Of the Influence of the Mind upon the Body in disease, we speak in detail in a work just published, containing the articles which have appeared in this journal, with a large amount of additional matter.

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*Cases in which Mental Derangement appeared in Patients suffering from Progressive Muscular Atrophy.* By T. W. McDOWALL, M.D., Assistant Physician, Inverness District Asylum.\*

In his clinical lectures Mr. Syme used to observe that cases may be interesting and important either because they are examples of diseases frequently met with, or because they are instances of maladies of unusual occurrence; the common cases deserve study and attention simply because they are common, whilst the rare cases call for special investigation because we may thereby discover facts which may explain phenomena in cases of every-day experience. The two cases which I am about to describe are examples of a rare combination of nervous diseases; but any remarks on this and other points must be deferred until the cases themselves have been described.

The first case, J. B., was admitted on 13th June, 1868; he was unmarried and a baker, but had been unable to work for a very considerable time. He had not been "strong minded" for years, but the attack of mania which necessitated his seclusion had only existed about four weeks. His friends believed that the acute attack depended upon feebleness resulting from the muscular atrophy. He was described as free from epilepsy, not suicidal, but had threatened injury to others, though really he could harm no one, his arms being quite powerless. Concerning his family history little is known; it was stated that none of his relatives had been insane, which may be true; but it must be stated that a paternal uncle was a very nervous and peculiar man, though quite able to perform responsible duties, in his own way.

The first medical certificate states that the patient is incoherent, dances about violently, is intractable, and with delusions about property, marriage, and many other subjects; he is destructive, breaks windows and articles of furniture, and had threatened to injure persons. The other certificate is much to the same effect—that during conversation the patient became excited, danced and sang, and spoke incoherently as to property and money; stated that he was about to be married to several persons. The patient had been very excited and unmanageable for several weeks, at times very noisy, rude and profane in his language, breaking windows, furniture, &c., and went about the streets attracting the notice of the public by his talk and behaviour.

\* I had the good fortune to observe these cases when resident in the Perth District Asylum; and I have to offer my sincere thanks to Dr. McIntosh for his kindness in allowing me to publish them. I have also to thank Dr. Wilson for furnishing me with the necessary extracts from the case books, as I unfortunately lost my notes of these cases some time ago.

When admitted the patient was in a state of great excitement and exaltation ; but no description can convey an idea of his constant restlessness and the variety of his delusions. All his mental symptoms, however, agreed in one particular—they were of an extraordinarily grandiose character. He stated that he was the King ; then that he was God ; that the whole world was his, and that he would share it with those speaking to him ; that he was to be married to the Queen, and thousands of women besides ; that he would make all his friends princes, &c., &c., &c. He also said that he was a minister ; he prayed and repeated psalms, but if interrupted swore abominably. So he went on incessantly, until foam collected on his lips and his tongue became quite parched. So restless was he that he required an attendant for himself. Being unable to use his hands, he broke windows with his head, saying that he would put in gold ones, and thus encourage trade. When admitted, his digestion was much deranged and his appetite poor. Concerning the extent of the muscular disease, it may be stated that in both arms the atrophy was very marked ; indeed the muscles appeared to have disappeared, producing complete paralysis ; when the patient wished to move these limbs he required to swing the whole body. The muscles of the trunk were free from disease, except the great muscles passing from the chest to the upper extremities ; these were much affected, especially the pectorals. The lower limbs were quite free from the disease.

It is unnecessary further to describe the condition of the patient on admission ; but to give a correct idea of the progress of the case the following extracts from the day-book will be necessary :—

18th June. He has greatly improved since admission. The first night after admission he got Tr. Cannab. Ind. m. xlv., but without any effect, for he spent the whole night in talking, laughing, praying, swearing, &c. Next day he broke several panes of glass, was merry, and extremely talkative. In the evening he got mur. morph. gr.  $\frac{1}{4}$ , injected ; after this he slept all night. Since then he has been decidedly quieter during the day, and at night always gets a few hours' sleep by the use of opiates. His appetite has also improved, but is not yet quite satisfactory ; the tongue is still considerably furred. During the day he still rambles in his talk, and makes extraordinary remarks on everything he sees. He is very fond of singing psalms and repeating the Lord's Prayer in a very loud tone. During these performances he goes on his knees, and is evidently pleased because his neighbours pay attention to his pranks.

23rd June. Although decidedly quieter during the day, he is still noisy, as a rule, at night, in spite of various draughts at bedtime. During the day his tongue is never quiet, but his shouting is not quite so loud. He takes his food better.

5th July. Yesterday he was particularly noisy, in fact as bad as when admitted. He has slept little for some nights past until last night. He generally requires morph. acet. gr.  $\frac{1}{2}$  injected, besides

Tr. Cannab. Ind. ʒss. as a draught to make him moderately quiet for two or three hours after going to bed. Although his tongue is much furred, he takes his food very well.

10th July. He is decidedly quieter during the day, and occasionally sleeps without any narcotic at bedtime. His appetite is still very good. To be tried out with the walking party.

15th July. He has been very noisy and troublesome since yesterday; he slept none last night, but shouted so violently that his voice is now nearly gone. Ordered Ol. Ricini, ʒj. At bedtime half-a-grain of the Morph. Acet. was injected with good effect; at 10 p.m. he was asleep.

24th July. He has again been rather noisy since yesterday; did not sleep well last night. Ordered Ol. Ricini, ʒj.

4th August. He has been more noisy during the past two days. He has occasionally vomited a few mouthfuls of his supper. Ordered Ol. Ricini, ʒj.

7th August. All narcotics have been omitted for some weeks, and the patient has been, on the whole, tolerably quiet until the last few days, during which he has been exceeding restless. For the last two nights he has been noisy and restless, constantly talking and swearing, also pushing about his clothes in all directions. Ordered full opiates for a night or two. His stomach appears somewhat irritable, as the patient has occasionally rejected more or less of his supper. Ordered tea and bread for a few evenings.

25th August. The patient continues moderately quiet, but all his grand ideas remain as before. His stomach appears quite recovered, but the patient makes himself sick by chewing rubbish. As he cannot use his hands he kneels down and picks rags, grass, &c., off the ground with his teeth.

8th September. He has been somewhat more restless during the last few days, and at night has not slept well. Ordered Tr. Cannab. Ind.

1st October. For the last ten or fourteen days there has been considerable œdema of the ankles and, to a slight extent, of the eyelids. The urine contains no albumen, but there are triple-phosphates and dumb-bell crystals of oxalate of lime. He continues very restless and talkative during the day, but generally sleeps well at night. He will remain in bed for a few days, as he appears somewhat exhausted. It may be noted that, from his almost constant incontinence of urine, his scrotum and surrounding parts have become excoriated. Ordered to have the parts frequently bathed, and spirit lotion applied.

4th October. His legs are now well, and he will leave bed tomorrow. He has a bad habit of regurgitating his food, spitting it on the bedclothes, and licking it up again.

7th November. The cold weather appears to be telling on him very severely. Two days ago his face was extremely pale and pinched, and his legs were so feeble that he could scarcely stand; he

also took very little food. Yesterday he remained in bed in a very feeble condition. His scrotum is acutely inflamed. He is unable to take his ordinary food, and even has difficulty in swallowing beef tea and wine. His urine contains a small quantity of albumen, but is free from oxalates and phosphates; there are no tube casts, but numerous renal epithelium cells. There is again marked œdema of feet and ankles.

20th November. Patient did not sleep last night even after getting sol. morph. mur. m. xxx. This morning he appeared very weak and exhausted, and had great difficulty in swallowing any food. At 2.15 p.m. he suddenly became pale and unconscious, and appeared dead; but fully a minute afterwards he gave a deep sigh and expired.

All persuasion failed to persuade his relatives to agree to a *post-mortem* examination.

The second case which I have to report is, in many respects, a marked contrast to the preceding, being the best instance of Monomania which ever came under my observation.

This patient was admitted on 19th December, 1867; he is unmarried, and has resided for some years back with his sister, being unable to support himself on account of his feeble health. For a few weeks previous to his admission, however, he had been an inmate of the P— Infirmity, hoping to obtain some improvement in his physical condition. He had been insane for five or six months previous to admission, and had exhibited a suicidal tendency, having threatened to drown himself. The medical certificates were to the effect that he suffered under the delusion that his sister attempted to poison him by putting washing powder and other substances into his food. When admitted he was rather peculiar in appearance, his face being exceedingly pale and surrounded with a large quantity of black, shaggy hair; his body was much emaciated, and his arms dangled about in every direction, whilst his trunk was maintained in a stiff, somewhat military position. In conversation he was very correct and polite; talked about his past life and sufferings in a very precise and moderate manner, and remarked that he did not expect any improvement physically, and that there was nothing wrong with him mentally. When told that he would, probably, meet some of his old acquaintances, such as Mr. S ———, he immediately remarked—“But he suffers from some mental affection.” When questioned about having refused food, he said in the Asylum there could be no danger in taking what was offered to him, and he now believed his charges against his sister to have been unfounded, and regretted having made them, though formerly he believed his accusations to be founded on fact. When examined, it was found that his bodily health was very feeble, and that the patient laboured under progressive muscular

atrophy. The muscles of the upper extremities had almost disappeared; those in the neck were also greatly affected, so that in these parts he had almost no muscular power. His lower limbs were in fair condition. He could walk without pain or difficulty, and could chew and swallow easily.

When admitted the patient gave a full account of the progress of his physical disease; it is exceedingly interesting, and as follows:—When twelve years of age he had typhus fever, but made a rapid recovery. Having served an apprenticeship to a lawyer, at nineteen years of age he went to Glasgow as a clerk. Three years afterwards he had a chancre, but having placed himself at once under medical treatment, he never had constitutional symptoms such as sore throat, eruption, &c. After remaining in Glasgow eight years, during which time he attended classes at the University, and worked very hard, he had to give up his situation on account of great exhaustion produced by over-work as head-clerk in a large office. Having somewhat recruited his health by rest he returned to Glasgow, and managed a law business for nearly four years. He then removed to another situation, where he remained three years, but having received a tempting offer to go to London to manage a Scotch law business, he went there. He speedily discovered that he had been deceived, and gave up his situation, getting almost none of his salary. He now found himself very poor; but being unwilling to return to Scotland, he took another situation, but it turned out almost as badly. From April, 1863, to November of the same year, he had almost nothing to do, and suffered great hardships from want of food. As a rule he paced the streets during the whole day, often utterly exhausted, for he seldom, for weeks at a time, had more than a cup of coffee and a small piece of bread daily. In August he noticed for the first time that the ring finger of the right hand dropped when writing. By this time he was much emaciated, particularly in the right fore-arm. By the end of October the muscular weakness had progressed so rapidly that he could scarcely hold the pen, and his writing was tremulous. In November he obtained a good situation, but was unable to retain it as he could not write. In January, 1864, he returned to his native place. At this time his lower limbs were totally unaffected, and he had power enough in his arms to carry two heavy portmanteaus a distance of six miles. He could also perform coarse muscular movements (*e. g.*, grasping) pretty well, but was unable to do such operations as buttoning, &c. His left arm continued pretty strong, and he used his left hand to steady the right when shaving, and to press the right thumb against the pen when writing. He remained with his sister, and for eight months he had no medical advice; but as the weakness in the arms and elsewhere was gradually increasing, he at length put himself under the care of a physician. The patient insists that this gentleman treated him for disease of the spine, giving him tonics, blistering his neck, and applying iodine along the spine. Whilst this treatment was continued his condition became

worse. Since the date of its discontinuance he has occupied his time in walking exercise, and indoors, in reading and teaching phonography, &c., &c. He states that at present he is on the whole thinner, but that the muscular power of his arms and neck is somewhat greater than before. When admitted he laboured under a slight attack of influenza; heart, normal; pulse 96 of fair volume and strength; the tongue moderately clean, but very much fissured and painful. This condition of the tongue he attributed to the action of the poison given by his sister.

It is unnecessary to give here all the notes of this case, but the following may be given as indicating his general condition:—The mental condition of this patient remains unimproved. His delusions as to his sister attempting to poison him remain firmly fixed, but he speaks on the subject as seldom as possible, as it evidently causes him great mental pain. Being a man of superior education he finds time hang very heavily on his hands, and tries all manner of plans to cause it to pass quickly and pleasantly. He reads a great deal, teaches shorthand occasionally, and is particularly fond of chatting with his more intelligent neighbours. He often expresses a strong desire to be discharged from the asylum, as he is confident that he could maintain himself by teaching phonography. He says he would at least make a great effort, and should that fail he would make sure that he never returned to an asylum; plainly hinting that he would commit suicide. His bodily health has certainly improved during his residence here; he is decidedly stouter and more able to withstand cold and fatigue. Muscular power in the parts previously affected has not increased, but it certainly has not decreased, and no other region has become affected. He is habitually constipated, and if this be not relieved in time by a laxative, he then suffers from headache, &c. Shortly after admission he was put on cod liver oil and ferri ammon. cit., and these drugs were continued for some months with decided benefit to the patient's general condition. It may be added that when his bodily health becomes deranged, as during an attack of influenza or from constipation, he surely becomes dull and unhappy, reflects on his blasted hopes and melancholy prospects, &c. Being quite unable to feed himself, he is fed by the attendant: his diet consists of the usual slop food, with beer, egg, and other extras.

The preceding description of the patient, though written in 1869, is still applicable in all essential respects.

Much of the value that an account of these cases might possess is lost from want of any *post-mortem* examination of the nervous centres. They appear, however, worthy of record as they are examples of a decidedly rare combination of nervous disorders. So far as I have been able to discover, no special attention has been directed to the fact that cases of muscular atrophy are liable to be complicated with mental de-

rangement. Dr. Tuke, when referring to affections of the head and spine as physical causes of insanity, states that in 1852, of 1353 admissions into the Bicêtre and Salpêtrière, 27 were attributed to apoplexy and 31 to paralysis, being a proportion for both together of 4 per cent.\* Dr. Roberts, who has devoted so much attention to progressive muscular atrophy, does not indicate that mental derangement is a common complication of such cases, but, on the contrary, he distinctly states that "the general health is usually quite unaffected, the intelligence quite clear," &c.† I have also looked through the "Annales Médico-Psychologiques," but have failed to discover cases similar to those I have recorded. It may, therefore, be concluded that such cases are unusual.

The case of J. B. resembled in many respects one of general paralysis; indeed, the mental characteristics were exactly what are usually seen during the first stage of that disease, yet the physical symptoms were so entirely different that there could be no possibility of making an error in diagnosis. The second is a striking contrast to it so far as the mental symptoms are concerned, and is, as I have already said, the best instance of monomania which has come under my notice. When the two cases are looked at together, one is forced to inquire as to the probable causes which led to such a combination of nervous disorders. A still more interesting question would refer to the portions of the nervous centres affected in each case. Unfortunately we have no *post-mortem* examinations to aid in solving these questions; and, besides, it is very questionable if, in the present state of our knowledge of pathological anatomy of the nervous centres, such examinations would help us much to throw light on the connection between the mental symptoms and the diseased portions of the nervous system present in each case. Even in regard to progressive muscular atrophy, observers have not yet agreed as to the real seat of the lesion in the nervous centres; and it is not to be wondered at, in the case of mental disease where the phenomena are so varied and the organs so complex, that but little progress has as yet been made in referring certain morbid mental symptoms to limited diseased areas in the brain. Such progress has, however, been made of late years as to lead us to hope that we may yet be able to detect physical changes in the brain as being the causes of certain mental

\* Psychological Medicine, 2nd edit., p. 286.

† Wasting Palsy, by Dr. Roberts in "System of Medicine," edited by Dr. Russell Reynolds, vol. ii., p. 172.



phenomena during life. Considering the great difficulties which beset such enquiries, it appears to be our duty to carefully consider all cases like the present, where we have unusual combinations of nervous diseases, as we may thereby obtain some hint which, when worked out, may lead us to a more successful method of studying mental phenomena and of examining nervous structures.

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*An Address on Medical Psychology.* By HENRY MAUDSLEY, M.D., F.R.C.P., Professor of Medical Jurisprudence in University College; President of the Section.

*(Delivered at the Opening of the Psychological Section of the British Medical Association.)*

In beginning the work of this Section, over which I have the honour to preside, I shall confine myself to a few introductory remarks of a general character, leaving to those who will come after me the more exact scientific work of which we have fair promise in the papers that are to be read. The occasion seems fitting to take a short survey of the position of medical psychology in relation to certain important questions of the day, and to consider the bearing which its progress must eventually have upon them. Permit me, then, to ask you, first, to look back a little way at what medical psychology was, in order the better to realise what it is, and, if possible, to forecast something of the character of its future work. A glance at the past will show how great a step forward has been made, and may yield some reason for congratulation; a glance at the present, showing, as it cannot fail to do, how small a proportion the gains bear to what remains to be acquired, will prove that as yet we have rather discovered the right path than made much way on it—that we are, in truth, only on the threshold of the history of medical psychology as a science.

One of the saddest chapters in human history is that which describes the cruel manner in which the insane were treated in times past. Notwithstanding that it is happily a thing of the past, it will not be without profit to inquire from what causes the barbarous usage sprang: for it was not common to all nations and all times; on the contrary, it had its birth in the ignorance and superstition of the dark ages of

Christian Europe. Whatever may have been thought of madness among the peoples who preceded the ancient Greeks—and there is evidence that the Egyptians adopted a singularly enlightened and humane treatment—it is certain that the Greeks had comparatively sound theories of the nature of insanity as a disease to be cured by medical and moral means, and adopted principles of treatment in conformity with those theories. Their dramatic poets, it is true, present terrible pictures of madmen pursued by the anger of the gods; but these were poetical representations, which must not be taken as a measure of the best knowledge of the time. Then, as now, and indeed, as ever in the history of mankind, the true thinkers were emancipated from the fables and superstitions of the vulgar: the just measure of Greek intellect must be sought in the psychology of Plato, in the science of Aristotle, and in the medical doctrines of Hippocrates. This eminent physician and philosopher expressly repudiates the notion that one disease is of more divine origin than another. After saying that the Scythians ascribe the cause of certain disorders to God, he goes on to give his own opinion that these and all other disorders are neither more nor less of divine origin, and no one of them more divine or more human than another; that each has its own physical nature, and that none is produced without or apart from its nature. In what he says of the psychical symptoms of various diseases of the body he evinces such enlarged views of the scope of medical observation and practice as are not often evinced at the present day; and the few observations in his works respecting the symptoms of delirium “evidence that clear and correct view of disease which has made this first observer a model to all succeeding times.” He directs attention to such facts of observation as the physical insensibility of the insane, the appearance of mental diseases in the spring, the occurrence of disorder of the intellect after a continuance of fear and grief, the union of melancholy and epilepsy, the critical importance of hæmorrhoidal discharges in mania, the difficulty of curing madness which commences after the age of forty, and the like. And as there was no superstition in these doctrines, so there was no barbarism in his treatment, which was medical, and consisted principally in evacuation by the use of hellebore. But moral treatment was not unknown among the Greeks; for Asclepiades, who seems to have been the real founder of a psychical mode of cure, made use of love, wine, music, employment, and special means to attract

the attention and exercise the memory. He recommended that bodily restraint should be avoided as much as possible, and that none but the most dangerous should be confined by bonds. Without going further into particulars, enough has been said to show that the Greeks had acquired accurate notions of madness as a disease, which was to be cured by appropriate and moral treatment.

How came it to pass that these enlightened views ever fell into oblivion? The question is really only a part of the larger question, how it came to pass that the high æsthetic culture and brilliant intellectual development of the Grecian era, which might have seemed possessions of mankind for ever, were lost in the darkness and barbarism of the middle ages. To trace the causes of this so sad decline would be far beyond my present purpose; suffice the fact that philosophy, which had mounted so high, was for a time sunk so low beneath the waves of superstition and ignorance, that it might well have never been in existence. And when at last a revival of learning took place, things were little better; empty scholastic subtleties and metaphysical mysticism engaged the whole attention of men, who rivalled one another in verbal disputations, without agreement in the meaning of the terms they used, and in blind worship of the authority of Aristotle, without real regard to the true method of his philosophy or to the facts with which it dealt. As if knowledge were nothing more than a process of ingenious excogitation, they made no attempt to observe the phenomena of Nature, and to search out the laws governing them, but laboriously "invoked their own spirits to utter oracles to them"—wherefore philosophy was little more than a web of unmeaning terms and of empty metaphysical subtleties.

With this sort of intellectual activity was joined, as the result of the detestable spirit which inspired monastic teaching and monastic practice, a harsh religious asceticism, through which the body was looked down upon with contempt, as vile and despicable, the temple of Satan, the home of the fleshly lusts which war against the soul, and as needing to be vigilantly kept in subjection, to be crucified daily with its affections and lusts. It was the earthly prison house of the spirit whose pure immortal longings were to get free from it. Such was the monstrous doctrine of the relation of mind and body. What place could a rational theory of insanity have in such an atmosphere of thought and feeling? The conception of it as a disease was impossible: it was ascribed to a super-

natural operation, divine or diabolical, as the case might be—was a real possession of the individual by some extrinsic superior power. If the ravings of the person took a religious turn, and his life was a fanatical practice of some extraordinary penance—if, like St. Macarius, he slept for months together in a marsh, exposing his naked body to the stings of venomous flies; or, like St. Simeon Stylites, he spent the greater part of his life on a pillar sixty feet high; or, like St. Anthony, the patriarch of monachism, he had never, in extreme old age, been guilty of washing his feet—he was thought to have reached the ideal of human excellence, and was canonised as a saint. More often his state was deemed to be a possession by the devil or other evil spirit, or the degrading effect of a soul enslaved by sin. From some cause or other he was a just victim of divine displeasure, and had been cast down in consequence from his high human estate.

It was the natural result of such views of insanity that men should treat him whom they believed to have a devil in him as they would have treated the devil could they have had the good fortune to lay hold of him. The tortures which the insane suffered from the devils that had entered into him were less than those inflicted by the devils who took charge of him. When he was not put to death as a heretic or a criminal, he was confined in a dungeon, where he lay chained on straw; his food was thrown in, and straw raked out through the bars; sightseers went to see him, as they went to see the wild beasts, for amusement; he was cowed by the whip, or other instrument of punishment, and was more neglected and worse treated than if he had been a wild beast. Many insane persons, too, were without doubt executed as witches, or as persons who had, through witchcraft, entered into compact with Satan. It is a striking illustration, if we think of it, of the condition of thought at that time, and of the great change which has taken place since, that such expressions as the black arts, witchcraft, diabolical possession, and the like, have fallen entirely out of use, and would be thought to convey no meaning if they were used now. They were fictitious causes invented to account for facts, many of which undoubtedly lay within the domain of madness.

Now it is a fact, abundantly exemplified in human history, that a practice frequently lasts for some time after the theory which inspired it has lost its hold on the belief of mankind.

No wonder, then, that the cruel treatment of the insane survived the belief in diabolical possession, though it is justly a wonder that it should have lasted into this century. The explanation of the seeming anomaly is to be sought, I believe, in the purely metaphysical views of mind which prevailed long after inductive science had invaded and made conquests of other departments of nature. Theology and metaphysics, having common interests, were naturally drawn into close alliance, in order to keep entire possession of the domain of mind, and to withstand the progress of inductive inquiry. With the notions they cherished of the nature of mind, and of its relations to body, it was thought impossible, and would have been denounced as sacrilegious, to enter upon the study of it by the way of physical research. To have supposed that the innermost sanctuary of nature could be so entered through the humble portals of bodily functions, would have been regarded as an unwarrantable and unholy exaltation of the body, which was full of all uncleanness, corruptible, of the earth earthy, and a gross degradation of the mind, which was incorruptible, of the heaven heavenly, and joint partaker of divine immortality. Whosoever had dared to propound such a doctrine would assuredly have been put to death as a blasphemer and a heretic. And yet he ought to have been hailed as a benefactor. It is impossible to say of any false belief which mankind have had that it has been the most pernicious in its effects; but we may truly say of the theological notion of the relations of mind and body that it has been surpassed by few false doctrines in the evil which it has worked.

The spirit of metaphysical speculation was scarcely less hostile to physical researches into mental function. For when inquirers had struggled successfully out of mere verbal disputation, and had applied themselves to the observation of mental phenomena, the method used was entirely onesided; it was a system of mental introspection exclusively, each one looking into his own mind and propounding as philosophy what he thought he observed there; the external observation of mind in all its various manifestations, and of the bodily conditions of all mental action, was ignored. When all knowledge of mental action was gained in this way by observation of self-consciousness, men naturally formed opinions from their own experience which they applied to the mental state of insane persons; feeling that they themselves had a consciousness of right and wrong, and a power of will to do

the right and forbear the wrong, they never doubted that madmen had a like clearness of consciousness and a like power of will—that they could, if they would, control their disorderly thoughts and acts. The dungeon, the chain, the whip, and other instruments of punishment were accordingly in constant use as means of coercion, the result being that exhibitions of madness were witnessed which are no longer to be seen, “because they were not the simple product of malady, but of malady aggravated by mismanagement.” What with the theological notion of madness as a work of Satan in the individual, and what with the erroneous views of it subsequently begotten of the metaphysical spirit, it came to pass that the barbarous system of treatment was only abolished within the memory of men yet living. In sad truth may we say that so far as a knowledge of the nature of insanity and of the proper mode of treating it is concerned, mankind owe no thanks, but, on the contrary, much error and infinite human suffering, to theology and metaphysics.

It was when men recognised insanity as a disease which, like other diseases, might be alleviated or cured by medical and moral means—when they regained the standpoint which the ancient Grecians had held—that they began the struggle to free themselves in this matter from the bondage of false theology and mischievous metaphysics. So far as the phenomena of deranged mind reach, the battle has been won and the victory is complete; no one whose opinion is of any value pretends now that they are anything more than the deranged functions of the supreme nervous centres of the body. But the victory is not yet complete along the whole line of mental function; there is the strongest desire evinced, and the most strenuous efforts are made in many quarters, to exempt from physical researches the highest functions of mind, and particularly the so called moral sense and the will. The moral sense is, indeed, the stronghold of those who have made strategical movements of retreat from other defensive positions which they have taken up; and it is from this stronghold that what are deemed the most telling arguments against the Darwinian doctrine of physiological evolution have come. Are we, then, as physiologists, to allow an exemption from physical research to any function of mind, however exalted, or shall we maintain through good and through evil report that all its functions, from the lowest to the highest, are equally functions of organisation? A vital question for us as

medical psychologists, which we must, sooner or later, face boldly, and answer distinctly.

In Abercrombie's well-known and valued work, "Inquiries concerning the Intellectual Powers," there is a striking passage relating to the moral sense which seems to me almost melancholy. After pointing out clearly the existence of a moral insanity in which every correct feeling is obliterated in regard to moral relations, while the judgment is sound in all other relations, and so demonstrating that the influence of the moral principle on the power of conscience may be weakened or lost, while reason remains unimpaired, he says: "That this power should so completely lose its sway, while reason remains unimpaired, is a point in the moral constitution of man which it does not belong to the physician to investigate. The fact is unquestionable; the solution is to be sought in the records of eternal truth." Is not this passage truly melancholy? Must science really accept this attitude of helplessness? Must the physician who has to deal practically with these instances of moral insanity forbear for ever to investigate its nature and causation? So far from assenting to such an exclusion, I hold that there is no *sanctum sanctorum* in science, and that it distinctly belongs to the physician to seek for the solution of the problem in the discovery of those laws of nature which are to him the incontestible records of eternal truth.

Let us clearly apprehend the problem which we have to consider. Some popular capital has been made, and made in quarters where we might justly have looked for greater sincerity or sounder apprehension, out of the fact that physiology, however far it may advance, can never bridge over the gap between nerve elements and mind, can never leap from the movements of nerve molecules to consciousness. No one has ever said that it could; the problem before us as scientific observers is not to demonstrate the real nature of the force which we designate mental, nor to show how and why certain molecular movements in nerve become, if they do become, sensation or idea, but it is to trace here, as in other departments of nature, uniformities of sequence, to point out that certain sequences are, within our experience, the invariable consequences of certain antecedent conditions. The *how* or the *why* is a mystery which we do not pretend or attempt to explain; we do not even aspire to know it. We can only know the uniformities of sequence as we do the uniformity of sequence which we call gravitation. What is the actual

power which makes one body attract another directly as the mass and inversely as the square of the distance, we have not the least knowledge; why and how certain molecular movements become heat, or electricity, or chemical action, we are just as ignorant; and in admitting that we cannot comprehend how certain states of matter occasion certain states of mind, we may rightly demand that no more should be asked of the physiologist, in explanation of the *why* of events, than is asked of the physicist. The mystery is neither more nor less in one case than in the other. To say that it is inconceivable that matter, in however complex a state of organisation, should generate consciousness, should feel and think, is simply an appeal to the self-sufficiency of human intellect at the present day, and a sort of argument which, if logically carried through, would bar any new conception of what, from ignorance, is yet inconceivable to us; it would make the present limit of conception the limit of conception for ever; and it is certainly unwarrantable in the face of the fact that the history of the progress of knowledge is, in great part, a history of the inconceivable becoming conceivable. Moreover, it is an assertion which is positively contradicted by the testimony of persons who have been presumably in their right minds, and who have not spoken in mere haste and ignorance. Let me instance that of one person, whose qualifications few will contest—I mean John Milton. Both in prose and poetry he makes known his opinion that matter is capable of intellectual functions, declaring, in “*Paradise Lost*,” that the first matter rises through various degrees of substance and of life, until “body up to spirit works,” just as from the root springs lighter the green stalk, from thence the leaves, and, “last, the bright consummate flower spirits odorous breathes.” That he intended this passage not merely as poetry, but as sound philosophy, is proved by what he says in his “*Treatise on Christian Doctrine*,” where he declares—“That man is a living being, intrinsically and properly one and individual, not compound or separable, not, according to the common opinion, made up and framed of two distinct and different natures, as of soul and body,—but the whole man is soul, and the soul man; that is to say, a body, or substance, individual, animated, sensitive, and rational.” The notion of matter being capable of thinking was clearly then not inconceivable to Milton; and there can be no doubt that there always have been persons who have found it more conceivable than the notion of spirit entirely distinct from body, having no rela-



tion to it, and yet acting upon it in every thought, feeling, and act of life.

With these general remarks, by way of necessary caution, let me come to the particular problem which we have to face—namely, whether there is the same essential connexion between moral sense and brain which there is between thought and brain, or between any of our special senses and its special ganglionic centre in the brain? Is conscience a function of organisation? I will ask you to look without prejudice at the facts of observation, and to consider if they admit of any other scientific interpretation. For the medical psychologist, whose duty brings him into constant intercourse with facts, cannot rest satisfied with vague speculations; he is bound to investigate the phenomena as they present themselves to observation, and to form conclusions from them, without regard to accepted theories of faith or knowledge; and if he arrives at sound conclusions from such observation of facts not before observed, these will not contradict old faiths unless in that wherein old faiths are wrong, and it is right they should be contradicted. His generalisations, like the generalisations of astronomy, chemistry, or any other branch of science, must rest on their own merits; they cannot justly be tested by any preconceived standard of truth, however much hallowed by antiquity or sanctioned by authority.

When we come to deal with examples of moral degeneracy whether among the insane or among criminals, we perceive, at once that it is not sufficient to ascribe immorality to the devil; that we must, if we would not leave the matter a mystery, go on to discover the cause of it in the individual. The effect defective comes by cause, we are constrained to believe; what is the cause and what are the laws of moral degeneracy? As society is constituted, certain forms of evil-doing are certainly not profitable in the long run; how comes it, then, that an individual, capable of looking before and after, remembering the retribution of past sin, and foreseeing the Nemesis that waits on future wrong-doing, is so forgetful of true self-interest as to yield to evil impulses? And whence do these impulses come? One thing is certain, that moral philosophy cannot penetrate the hidden springs of feeling and impulse; they lie deeper than it can reach, for they lie in the physical constitution of the individual, and, going still further back, perhaps in his organic antecedents. Because the fathers have eaten sour grapes, therefore it often is

that the children's teeth are set on edge. Because the fathers had stoned the prophets, therefore it was that the children rejected Him who was sent unto them. Assuredly of some criminals, as of some insane persons, it may be truly said that they are born, not made; they go criminal, as the insane go mad, because they cannot help it; a stronger power than they can counteract has given the bias of their being. Those who doubt this when it is put in this positive form, will hardly continue to do so when they consider that between the drivelling idiot, equally destitute of intellect and moral feeling, whom no labour of training can raise to a human level, and the highest example of intellect and moral feeling, there are beings marking every step of the long gradation; that we may mount from entire absence of moral sense through every grade of deficiency up to its highest state of development. I do not dispute that much may sometimes be done by education and training to counteract in this respect the ills of a bad inheritance, but it is still true that the foundation upon which the acquisitions of education must rest are inherited, and that in many instances they are too weak to bear a good moral superstructure. Moral philosophy may make its hard and fast lines, and lay down abstract propositions concerning the power of the will in the conduct of life; but, when we have to do with concrete cases, it is plain that no such definite lines can be applied, and that the abstract propositions are only true of a certain proportion of mankind. Moreover, it appears also, that those of whom they are true have much less merit in the matter, and those of whom they are not true much less blame, than moral philosophers are apt to imagine and inculcate. The fate of inheritance which constitutes the misfortune of the latter constitutes also the virtue of the former. There is often *nulla imputatio* in one case, *nulla virtus* in the other.

The causes, course, and varieties of moral degeneracy are not then merely subjects for the moral philosopher or the preacher; but they are proper subjects for positive scientific inquiry. And if they be so investigated, it is not unlikely that the results may throw some light on the vexed question of the nature and origin of the moral sense. Now if there be a class of persons who are without the moral sense, who are true moral imbeciles, it is the class of habitual criminals. All observers who have made them their study agree that they constitute a morbid or degenerate variety of mankind, marked by peculiar low physical and mental characteristics.

They are scrofulous, often deformed, with badly formed angular heads, are stupid, sluggish, deficient in vital energy, and sometimes afflicted with epilepsy. They are of weak and defective intellect, though excessively cunning; and not a few of them are weak-minded and imbecile. The women are ugly in features, and without grace of expression or movement. The children, who become juvenile criminals, do not evince the educational aptitude of the higher industrial classes; they are deficient in the power of attention and application, have bad memories, and make slow progress in learning; many of them are weak in mind and body, and some of them actually imbecile. At the end of the best part of a life spent among prisoners, a prison surgeon declares himself to be mainly impressed with their extreme deficiency or perversion of moral feeling, the strength of the evil propensities of their nature, and their utter impracticability; neither kindness nor severity availing to prevent them from devising and doing wrong day by day, although their conduct brought on them further privations. Their evil propensities are veritable instincts of their defective nature, acting, like instincts, in spite of reason, and producing, when not gratified, a restlessness which becomes at times uncontrollable. Hence occur the so-called "breakings-out" of prisoners, when, without apparent cause, they fall into paroxysms of excitement, tear their clothing and bedding, assault the officers, and altogether behave for a time like furious madmen.

We may take it, then, on the authority of those who have had the best opportunities of observation, that there is a class of criminals formed of beings of defective physical and mental organisation; one result of the defect, which really determines their destiny in life, being an extreme deficiency or complete absence of moral sense; that an absence of moral sense may be a congenital vice or fault of organisation. The experience of medical practice certainly confirms this view. From time to time we are consulted about perplexing cases of what might be called moral insanity, or, more properly, moral imbecility, in children of the better classes. Though born in good circumstances of life, and having every advantage of education, they cannot by any care or training be made to learn and behave like other children; they display no affection whatever for parents, brothers, or sisters, and no real appreciation of the difference between right and wrong — no love for the one, no remorse for the other; they are inherently vicious, and steal and lie with a skill that it is

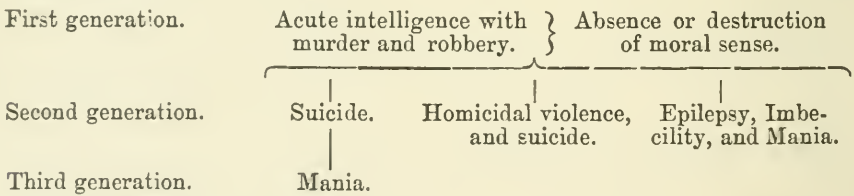
hard to believe could ever have been acquired—are, in fact, instinctive thieves and liars; everything that their vicious nature prompts them to desire is for them right, and they exhibit a remarkable cunning in gratifying their evil propensities; they are the hopeless pupils of any master who has anything to do with them, and are sure to be expelled from every school to which they may be sent. In the end, all those who have to do with them are constrained to ascribe to defect what at first seemed simple badness. Now what we commonly find in these cases, when we are able to push satisfactory inquiry into their hereditary antecedents, is that they come of families in which insanity or some allied neurosis prevails. This is the interesting fact to which I wish to draw attention.

In addition to the entire absence or perversion of moral sense, without feeling of remorse, which experience of habitual criminals brings prominently out, other important facts which we learn from an investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy, or some other neurosis exists, and that the diseases from which they suffer, and of which they die, are chiefly tubercular diseases and diseases of the nervous system. Crime is not, then, always a simple affair of yielding to an evil impulse or a vicious passion, which might be checked were ordinary control exercised; it is clearly sometimes the result of an actual neurosis which has close relations of nature and descent to other neuroses, especially the epileptic and the insane neuroses; and this neurosis is the physical result of physiological laws of production and evolution. No wonder that the criminal *psychosis*, which is the mental side of the *neurosis*, is for the most part an intractable malady, punishment being of no avail to produce a permanent reformation. A true reformation would be a *re-forming* of the individual nature; and how can that which has been forming through generations be *re-formed* within the term of a single life? Can the Ethiopian change his skin or the leopard his spots?

The hereditary kinship which is sometimes traceable between crime and insanity I cannot now set forth in detail; but, to make clear what I mean, I may give one or two illustrations out of many of a like kind which might be brought forward. Of five children from an insane mother and a drunken father, one was suicidal, two suffered imprisonment

for crimes, one daughter was insane, the other was imbecile. Suicide, crime, insanity, and imbecility, were thus different manifestations of a morbid type in the second generation. The case of Christiana Edmunds, who was convicted of murder, and afterwards reprieved and sent to Broadmoor, will be fresh in your recollection. Her father died raving mad in an asylum; her brother died epileptic and idiotic at Earlswood; her sister suffered from mental excitement, and once attempted to throw herself out of a window; her mother's father died paralysed and childish; a cousin on the same side was imbecile; she herself had been subject to somnambulism in childhood, had suffered from hysteria later in life, and had finally had an attack of hemiplegia; and at the time of her trial her face, drawn to one side, showed the effects of the hemiplegic attack from which she had suffered. I had more than an hour's conversation with her in Newgate, and at the end of it two convictions were firmly planted in my mind; the first, that she had no real moral appreciation of the nature of her crime, and no shadow of a feeling of remorse with regard to it; the second, that she would have poisoned a whole city-full of people, if it had lain in her way to do so, without hesitation, compunction, or remorse. Nevertheless, her intellect was acute, certainly above the average, and showed no signs of disorder. I could only regard her case as a strong confirmation of an opinion which I had elsewhere expressed, and which I believe to be a just conclusion from facts; namely, that one occasional result of descent from an insane family is a nature entirely destitute of moral sense—congenitally defective in that respect—whereby the individual is as insensible to the moral relations of life as a person colour-blind is to certain colours. I give no opinion here as to the legal policy of treating such a person as of sound and responsible nature; it is a subject beset with difficulties, and many considerations on which I cannot enter now would have to be taken into account; but I may justly ask you, as scientific men, whether you would pronounce a person with such hereditary antecedents and such personal ills, accountable in the same sense or same degree as one of us? For my part, when one thinks of the terrible affliction which an unsound mental organization is, and what a reason for devout thankfulness a man of sound descent and nature has, I would rather pray with the Arabian philosopher, "O God! be kind to the wicked; to the good thou hast already been sufficiently kind in making them good."

One example more shall suffice to exhibit the alliance between degenerate types ; it shows the effect of crime in one generation of a family upon the mental organisation of the following generations—shows, indeed, how the sins of the fathers are visited upon the children unto the third and fourth generations. While the Reign of Terror was going on during the first French Revolution, an innkeeper profited by the critical situation in which many nobles of his commune found themselves, to decoy them into his house, where he was believed to have robbed and murdered them. His daughter, having quarrelled with him, denounced him to the authorities, who put him on his trial, but he escaped conviction from lack of proof. She committed suicide subsequently. One of her brothers had nearly murdered her on one occasion with a knife, and another brother hanged himself. Her sister was epileptic, imbecile, and paroxysmally violent. Her daughter, in whom the degenerate line approached extinction, became completely deranged, and was sent to an asylum. Here, then, is the sort of pedigree which we really want, if we are to judge of the worth of a family, the hereditary line of its vices, virtues, and diseases.



It may be said that this was an extreme and exceptional case. Without doubt it was an extreme case ; but it is on that account the better fitted to produce an impression ; and it must be remembered that the laws by which its results were worked out are laws which are continually at work in accomplishing less striking results, and that so-called exceptional cases in science are, when rightly studied, exceptionally useful in helping us to discover the laws for which we are searching. My argument is, that the moral element is an essential part of a complete and sound character, in the present state of human evolution ; it was the last acquisition of development in the progress of *humanisation*, and it is commonly the first to suffer when degeneracy begins, and therefore its decay is the first sign of the commencement of such degeneracy. He who is destitute of moral sense is a defective being to that extent ; he marks the beginning of race-degeneracy ; and if better influences do not intervene to check

or neutralise the morbid tendency, his children will exhibit a further degree of degeneracy, and be actual morbid varieties. What shall be the particular outcome of the morbid strain—whether vice, or crime, or madness—will of course depend much on the circumstances of life; the inborn fact counts for much, but not for everything, in the result. Certainly, however, it is a conviction in my mind, produced by observation of instances, that one way in which insanity seems to be generated *de novo* in a family, is through the deterioration of nature induced by destruction of moral sense. As insanity in one generation may produce an absence of moral sense in the next, so, conversely, absence or destruction of the moral sense in one generation may be followed by insanity in the next.

No one who has had much to do with the treatment of the insane can have failed to notice the mental peculiarities sometimes exhibited by their near relations. And one way in which these are displayed is an extreme morbid suspicion of everything and everybody; in the most innocent actions of others they detect an unworthy motive, and seize on the evil interpretation. They torment themselves and others with the ingenuity of their suspicions. Secret ways and dealings they affect naturally and pursue systematically; however insane their relative may be, they can hardly be brought to see it, and if they do see it, they seem actually to persuade themselves that the doctors who have treated him, or those who have had the care of him, are responsible for his state. These moral peculiarities are constitutional; they are marks of one variety of the insane temperament, and, as such, are of interest to us in our present inquiry.

For the facts which I have thus far mentioned seem to me to prove the essential connexion of the moral sense with organisation, and to admit of interpretation only on that supposition. It, or the potentiality of it, is inherited by most persons, though some appear to be born without it; it is developed by culture; decays from disuse; and is perverted or destroyed by disease. The last acquired faculty in the progress of human evolution, it is the first to suffer when disease invades the mental organisation. One of the first symptoms of insanity—one which declares itself before there is any intellectual derangement, before the person's friends suspect even that he is becoming insane—is a deadening or complete perversion of the moral sense. In extreme cases it is observed that the modest man becomes presumptuous and exacting,

the chaste man lewd and obscene, the honest man a thief, and the truthful man an unblushing liar. Short of this, however, there is an observable impairment of the finer moral feelings—a something different, which the nearest friends do not fail to feel, although they cannot always describe it. Now, these signs of moral perversion are really the first symptoms of a mental derangement which may, in its further course, go through all degrees of intellectual disorder, and end in destruction of mind, with visible destruction of the nerve-cells which minister to mind. Is the end then dependent on organisation, or rather disorganisation, and is the beginning not? This course of degeneracy is but a summary in the individual of what we have already seen to take place through generations, and in both cases we are constrained to believe that the moral changes are as closely dependent upon physical causes as are the intellectual changes which accompany or follow them. If it be not so, we may bid farewell to all investigation of mental function by a scientific method.

Other arguments in favour of this view of conscience as a function of organisation—the highest and most delicate function of the highest and most complex development thereof—might be drawn from the effect of a severe attack of insanity on the moral feelings. The patient entirely recovers his reason; his intellectual faculties are as acute as ever, but his moral character is changed; he is no longer the moral man that he was; the shock has destroyed the finest part of his mental organisation. Henceforth his life may be as different from his former life as was the life of Saul of Tarsus from the life of Paul the Apostle to the Gentiles. An attack of epilepsy has produced the same effect, effacing the moral sense as it effaces the memory sometimes; and we are all familiar with the marked temporary change of moral character in the epileptic, which often precedes and heralds the approach of his fits. A fever or an injury to the head has in like manner entirely changed the moral character, and so also has habitual opium-eating or habitual drunkenness. The evil effects of these vices might of course be ascribed to the indulgence of passion and the degradation of the moral sense apart from physical causes; but the same cannot be said of the effects of a fever or of an injury to the head. Moreover, we know that alcohol and opium do affect the brain by their actual presence there, and through the brain the mind, just as strychnia affects the spinal cord and its functions; and we know also that it is in the natural order of events that con-



tinuance of perverted function should lead to organic disease. In the case of opium or alcohol, then, as in the case of a blow on the head, we believe the effect to be physical.

We are further strengthened in this conviction when we take note of the decided effects of such a vice as self-abuse upon the moral character, or of such a sexual mutilation as eunuchs have undergone. Long before self-abuse destroys the mind, it destroys moral energy and feeling, this effect being the precursor of the intellectual impairment which goes on to utter dementia in the worst cases. Of the moral character of eunuchs, all that we can briefly say is, that in most cases they have no moral character; their minds are mutilated like their bodies; with the deprivation of sexual feeling, they are deprived of all the mental growth and energy which it directly or remotely inspires. How much this is, it would be hard to say; but were man deprived of the instinct of propagation, and of all that mentally springs from it, I doubt not that most of the poetry and perhaps all the moral feeling would be cut out of his life.

Before such an audience, it is not necessary for me to insist further on such facts as I have mentioned; as physicians we cannot fail to recognise them; but it is necessary for us, if we would be, like our great master Hippocrates, philosophers as well as physicians, to give them their proper place in a system of medical psychology, and to weigh their bearing on accepted philosophical theories. I had meant to point out how they go to prove the doctrine of evolution to be true of the highest mental faculties of man, including his moral sense; but I must refrain. Already I have trespassed too long on your patience. The medical psychologist must, I think, hold that the best of the argument concerning the origin of the moral sense is with those who uphold its acquired nature. That the sentiments of common interest in the primitive family and tribe, and the habitual reprobation of certain acts by individuals as injurious to the family or tribe, should finally generate a sentiment of right and wrong in regard to such acts, and that such sentiment should in the course of generations be transmitted by hereditary action as a more or less marked instinctive feeling, is in entire accordance with what we know of the results of education and of hereditary action. Time was, we know, when men wandered about the country in families or tribes. In order that they might rise from this nomadic state to a national existence, the acquisition and development of a moral sense must clearly

have been essential conditions—not, however, as preformed agents, but as concomitant effects, of evolution. This development is still going slowly on; but the proof how little moral sense itself instigates progress is seen in the absence of it between nations. Men have risen to a national existence, but they have not yet risen to an international existence. With moral principles that have not changed within historical times, nations still laud patriotism, which is actually a mark of moral incompleteness, as the highest virtue; and statesmen think it a fine thing to sneer at cosmopolitanism. But it cannot be doubted that the time will come, though it may be yet afar off, when nations will know and feel their interests to be one, when moral feeling shall be developed between them, and when they shall not learn war any more; it will come as a step in evolution and as a condition of universal brotherhood, not otherwise than as, coming between tribes, it bound them into nations, and made patriotism the high virtue which it is believed to be.

In the work of helping to trace the path of human evolution through the ages, a great function lies before a scientific psychology; and in investigating in our department thereof the characters of the various neuroses, and the causés, course and varieties of human degeneracy, which seem to be necessary retrograde accompaniments of progress, we medical psychologists have a vast field before us. To rise to a just conception of the scope and dignity of our work will be the best inspiration for entering on it, as is becoming, neither in an abject spirit of superstition nor in an arrogant spirit of conceit. For this we must not forget: that, however clearly we trace the order of events, the mystery of their *why* remains where it was; however clearly we may follow “one first matter” through

“ its various forms, and various degrees  
Of substance, and in things that live, of life,  
\* \* \* \* \*  
Till body up to spirit works,”

the power which determines why one tissue should supervene on another, why life should tend upwards, which inspires and guides the everlasting becoming of things, must ever remain past finding out. Man himself, with all his sorrows and sufferings, with all his hopes and aspirations, and his labours wherewith he has laboured under the sun, is but a little incident in the inconceivably vast operations of that primal central power which sent the planets on their courses, and holds the lasting orbs of heaven in their just poise and movement.

## OCCASIONAL NOTES OF THE QUARTER.

*Homicidal Insanity.*

The following case, which was tried at Lewes, on July 18th last, before Baron Martin, is of some interest with reference to the defence of insanity or homicidal impulse. It was a fortunate thing for the prisoner that a gentleman like Colonel Calvert was found to take so much interest in him, and to supply the funds for his defence. Had he been left to his own resources, there can be no doubt that he would have been found guilty, and in due course hanged. The case is interesting also because of the absence in the summing up of the judge of any reference to the right-and-wrong criterion of responsibility.

John Jordan, a soldier, 39 years of age, was indicted for the murder of one John Semple, a child, at Climping, near Littlehampton, on the 5th of May last.

Upon the evidence the history of the case was this. The prisoner was a gunner in the Royal Artillery, who had been at Woolwich and Gosport, but at the time of the dreadful act in question was stationed at a fort at a place called Climping, near Littlehampton. A bombardier named Semple was in the charge of the fort, and the murdered child was one of his children. The fort stands on a retired spot on the Arun, a quarter of a mile from any habitation. There were two gunners under the bombardier at the fort, one of them the prisoner, the other named Reardon. They were all under the immediate command of a non-commissioned officer named M'Clelland, who lived across the river. The commanding officer, a Captain Marshall, lived at Portsmouth. The prisoner is married; his wife lived near Dover, and he was desirous of being nearer to her. On the 11th of April last he applied to M'Clelland to forward an application to Captain Marshall for his removal to Dover. M'Clelland accordingly forwarded the application. Unfortunately, however, that very night the prisoner stayed out, and did not come back all night, nor until nine o'clock next morning. He was then, in the usual course of military discipline, put under arrest by Bombardier Semple, and kept in confinement a couple of days. In the meantime, Captain Marshall, who had received the prisoner's application, had heard of the occurrence. The prisoner had earnestly begged that it might not be reported to him, but the bombardier had reported it to M'Clelland, who

stated that he must report it to Captain Marshall, and it had been so reported. The result was that Captain Marshall, for the present, refused his application. After this, on more than one occasion the bombardier had to rebuke the prisoner for breaches of duty, and the last occasion was on the 1st of May. On the 5th of May, which was Sunday, the prisoner went to church with the bombardier and his children, as usual, and seemed on very good terms with them, chatting with the children, especially with the little boy. After dining with his fellow-soldier Reardon, the prisoner went to a place where a razor was kept, took it, and went out on the ramparts, where the bombardier's children were playing. Soon an alarm was raised by the cries of the children, the bombardier and his wife came out, and found the poor child lying on the grass with its throat cut, and the prisoner was seen running away. He was immediately pursued and apprehended; he did not deny the act, but said the devil must have tempted him to do it. Before the magistrates, he said "I have had a great deal preying on my mind; I hardly knew what I was doing. Two years ago my wife went away, and I have had a great deal on my mind ever since. The bombardier, his wife or family, never did me any harm that I am aware of. It was the fort that preyed on my mind; there was not sufficient company, nor enough work. If it had been a livelier place, and with more company, it would have worn off." Up to the time of the act and afterwards the prisoner's conduct and demeanour had been rational and sensible.

The first witness called was the bombardier himself, the murdered child's father, who described the circumstances under which he and his wife, running out, found the poor child, with its throat cut, lying on the grass.

In cross-examination for the prisoner, it was elicited that he had been some 20 years in the service, and had stripes which indicated 17 or 18 years' good service; in re-examination, that the prisoner always seemed sensible and rational.

The poor mother was called. The learned Judge suggested that she should not be subjected to the pain of an examination which was unnecessary, and accordingly she was only asked one or two questions. She proved that the prisoner knew, and had remarked, that the child murdered was their pet.

Reardon, the fellow soldier of the prisoner, proved that after dinner the prisoner read a novel for about half an hour, and then went to the box containing the razor, took it out, put on his tunic, and went out on to the battery, from which he could see right round the fort. A few moments afterwards came the alarm—the children's cries—the father and mother running out, and then exclamations of horror. The witness stated that the prisoner had always seemed quite right, and that he was a very sensible man. The prisoner's counsel elicited that he was usually a well-conducted man, and that was all that was asked in cross-examination.

The medical attendant proved that the child's throat was cut from ear to ear, and a few yards off the razor was picked up in the direction in which the prisoner had run away. The witness stated that the prisoner had never applied to him for medical advice or assistance. In cross-examination the prisoner's counsel endeavoured to elicit from the witness opinions in favour of a defence of insanity; but the witness said he had not had experience in cases of insanity. He stated, however, that there was a form of insanity in which paroxysms came on without any warning visible to persons not skilled and experienced. Most maniacs, he said, were liable to fits and paroxysms. Depression, loss of spirits, loss of sleep, loss of appetite, &c., were premonitory symptoms, which might indicate a state of mind likely to lead to such an act, and being in a solitary place might tend to aggravate such symptoms which would be still further aggravated by confinement. But in re-examination Mr. Lumley Smith elicited that although all this was true of maniacs, there was generally something in a person's previous and subsequent conduct or demeanour to indicate that he was a maniac. He admitted that he had not made lunacy a special study, and he said he spoke rather of persons who were known to be out of their minds.

The ferryman proved that when the prisoner came to him to be ferried across the river, just after running away, he trembled very much. He knew the prisoner well, and said he always seemed like other persons, in the full possession of his senses. There was no cross-examination of this witness.

M'Clelland, the master gunner, under whose command the bombardier and the prisoner were, was called as a witness. He assisted in apprehending the prisoner, who said, "It's of no use to deny it." Asked what he did it with he said with a razor, which he had thrown away in the grass. Witness asked him how he came to do such a deed, and the police-sergeant cautioned him, and then the prisoner said he had no animosity against the bombardier or his family, and it must have been the devil. Witness said he saw the prisoner daily, and he always seemed to be in his full senses, and had a good character. An attempt was made by the prisoner's counsel to get out that he had had a wound on the head in the Crimea, but witness had never heard of it.

When the police arrested the prisoner he said, "It would have been a good job if I had died long ago. Is the child dead?"

Captain Marshall was called, but nothing material was elicited. Again, it was attempted by the prisoner's counsel to prove that he had had a wound, but the witness had never heard of it, and in answer to a question from the counsel for the prosecution, he stated that the prisoner always seemed to be in his full senses.

This was the case for the prosecution.

Mr. Barrow addressed the jury on behalf of the prisoner, urging the defence of insanity. He admitted that every man must be deemed to be sane until proved to be insane, and that the onus of proof was on

those who set up the defence. But he urged the absence of apparent or intelligible motive. The imprisonment of the prisoner and the failure of his application had occurred a month previously. Moreover, the application had only failed for the time, and after that there was no more than a rebuke. The theory, he suggested, for the defence was one of homicidal impulse—a fit or paroxysm of mania. He admitted that he was not able to show that the prisoner had sustained any wound. But he was a man whose general conduct was good; his wife, however, had left him two years ago, his mind had been broken down by the blow; he sank into a state of depression, lost his sleep, his spirits, and his appetite; and he had actually been placed in hospital, and removed from Woolwich to Gosport, where, however, the same symptoms intervened. Unhappily, after this, the man was removed to this lonely solitary fort, and there his mental affection returned and was aggravated by the loneliness he suffered. Then ensued the imprisonment, which still further aggravated the affection of the mind under which he laboured, and which resulted in this unaccountable act. He knew he should be told that it was dangerous to make the act itself evidence of insanity, but here he urged the other evidence in the case led to the conclusion to which he desired to lead the jury, and he urged that it was more likely that the act was the result of insanity than of revenge.

In support of the defence thus opened Colonel Calvert, who had formerly been stationed at Woolwich, when the prisoner was there, was called. He had been recommended to him as a man of good character, and his conduct had always been good. He was most humane and very fond of children. He was fond of his wife, and felt the loss of her, but when she left him, which was only for a few days, there was no change in his demeanour, and they made it up, but afterwards he heard she left him again. Afterwards, in 1870, when the witness went to Gosport, he had the man down there to recruit his health. The man was after this taken into hospital, and it was stated that it was for *delirium tremens*, but this, the witness said, he did not believe. He saw the prisoner in hospital, when he complained of pains in the head, and that he could scarcely remain still in bed, owing to a sort of shaking. The man said he could not sleep or eat—he felt so worried. The man left the hospital, but afterwards went in again. Upon leaving Gosport, the witness warned the commanding officer that the man ought not to be sent to an out-fort, and that if he was he would probably go melancholy mad, as he was always melancholy when solitary. The colonel stated, in conclusion, that he supplied the funds for the defence.

In cross-examination, Mr. Smith elicited that what the witness had apprehended was that the man would commit suicide, not murder. He feared not insanity, but suicide from melancholy.

Major Dann, who had succeeded Colonel Calvert in the command at Woolwich, gave similar evidence in favour of the accused.

Dr. Hogg, who was attached to the Royal Artillery at Woolwich in 1870, when the prisoner was under his care, read his notes about him, which described him as "suffering from loss of sleep, spirits, and appetite," arising from mental depression. Witness said he had had some experience in a certain class of cases of insanity—puerperal cases—and he believed loss of sleep and spirits and appetite were often preliminary symptoms of fits of mania, and in this case he thought that confinement at the fort might have produced an outbreak.

In cross-examination Mr. Smith elicited that all this was more than two years ago—for a few months at a time—when the man was actually suffering from loss of sleep, &c. ; but these symptoms might pass away, and constantly did so. He admitted that in his own experience he had never known such symptoms result in madness. His experience was in puerperal cases and cases of *delirium tremens*. He did not prescribe for the man medically, and what he feared was drinking and suicide from shame. Asked if on the eve of an outburst of mania he should expect that the symptoms would intervene, and whether he should expect to find a man taking his dinner as usual, he hesitated at this, but at length said he should in a peculiar case like this. Mania varied, he said, so much.

Re-examined—The witness said there were many suicides in the army, arising chiefly from drink, and it was this which he had apprehended in the present case.

A man was called from the hospital, who proved that in 1870 the prisoner had been admitted for *delirium tremens*, had complained of his head, had his head shaved, was blistered, was sleepless, used to jump out of bed, &c. On one of these occasions the man had a knife in his hand, which was taken from him, and he was put into bed.

All this was two years and a half ago, and Mr. Smith elicited, in cross examining the witness, that the prisoner was in the hospital only for two months, and that the doctor had said it was *delirium tremens* when he was admitted, though afterwards another name was given to it.

This closed the evidence for the defence, and upon this

Mr. Barrow briefly urged that in the face of such evidence the prisoner ought not to be consigned to the scaffold, and that the safer course would be to acquit him on the score of insanity.

Mr. Lumley Smith, in reply on the part of the prosecution, observed that every one in such a case must entertain the hope that the defence of insanity should be sustained, for humanity naturally shuddered at the idea of such a horrible crime being committed. But what, after all, did the evidence for the defence come to? Merely to this, that the man two years ago had been in a state of mind, from depression, likely to lead to suicide. There was no evidence of a tendency to madness, and then all this was two years and more before the dreadful act.

The learned Judge then summed up the case to the jury. It was, he said, beyond a doubt that on the Sunday, after going to church and

eating his dinner, the prisoner went to his box and took out a razor, and went out and cut the child's throat. The defence was that at the time he did the act he was out of his mind, and did not know the nature of the act. They had had the history of the man for many years, and it appeared that he was a man of good character, and fond of children ; that the desertion of his wife had preyed upon his mind ; and that he fell into a state of depression, so that it was feared he would commit suicide. It was said that something had occurred in April to cause a feeling against the bombardier, but there was no evidence of it at all. It did not appear that he had ever expressed any such feeling. It did not appear that the confinement for two days had had any effect upon the man. Under such circumstances it was for the jury to consider whether it would be safe to convict the prisoner of murder. When such impulses came upon men, according to the medical evidence, they were unable to resist them. It would be safe in such a case to acquit the accused on the ground of insanity.

The jury, however, after a brief consideration, desired to retire to consider their verdict. They were absent from Court for more than half an hour. They then returned into Court with a verdict of *Guilty* of murder in an unsound state of mind.

The Officer of the Court—That is, you find him not guilty of murder, on the ground that at the time he committed the act he was in an unsound state of mind.

The jury said it was so.

The learned Judge said the result was that the prisoner must be confined during her Majesty's pleasure.

We may feel pretty sure that the illness for which the prisoner had been admitted into hospital in 1870 was not *delirium tremens*, but a genuine attack of acute insanity, and that the account which he himself gave of his mental state at the time of the homicide was correct. He was greatly depressed, "had a great deal preying on his mind," and "hardly knew what he was doing." "The bombardier, his wife, and family, never did me any harm that I am aware of;" still out of the melancholic depths the homicidal idea suddenly springs, and, like an unclean spirit entering into a man, drives him to his destructive work. After the mental convulsion is over, he trembles very much, returns to himself, and for the first time realises what a deed of horror he has done.

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*Legislation for Habitual Drunkards.*

It is a miserable misfortune for a great question when it falls into incompetent hands. The necessity of doing something to reclaim a certain class of dipsomaniacs has been urgently felt for a long time, but after the report of the Committee of the House of Commons, and some of the rash and sensational evidence given before the Committee, we fear that the necessity will continue to be felt for many years to come. The subject has been made ridiculous, and no sensible man can read the recommendations of the Committee without profound surprise that there should be so little common sense manifested in their treatment of it. Mr. Dalrymple deserves credit for the energy and perseverance which he has displayed in bringing to the front the question of legislation concerning habitual drunkenness, but we fear much that the present result of his labours will be to throw back a much needed reform.

Amongst so much that is calculated to arouse one's wonder or regret, it is refreshing to refer to the sound sense and careful reflection which are manifest in Dr. Mitchell's well-considered evidence, which we have pleasure in appending:—

Dr. Mitchell, Commissioner in Lunacy for Scotland, being examined by the Chairman, said—My experience as Commissioner in Lunacy for Scotland convinces me that drunkenness causes a great amount of the lunacy, pauperism, and crime of the country. Of the cases of lunacy reported to the Board last year in which the cause is stated, 19 per cent. were said to be due to intemperance. Every man who is drunk is really insane while the intoxication lasts. Intoxication injures the health in various ways, and may lead to any of the forms of insanity to which the abstemious are liable.

Do you mean that the ordinary characteristics of intoxication—exaltation of ideas, followed by confusion of ideas, and then by loss of power over ideas and action—constitute a brief period of insanity?—Yes.

Now, are there any forms of insanity related in a special manner to drinking?—Yes; there are several forms. First, there is the form of insanity called *mania a potu*, which is a continuance of the excitement which constitutes intoxication, and which comes on as the intoxication should be subsiding. An attack of insanity of this kind may occur to a person who was never drunk before. Then there is *delirium tremens*, which is a disease of the habitual drunkard, but to produce which it is not necessary that there should be frequent drinking to the extent of intoxication. It rather crowns the everlasting muddlement of the dram-drinker. Then there is *dipsomania*. Its characteristic is an

ungovernable but remitting craving for drink, without any reference to external circumstances; that is, without any reference to social intercourse or joviality. It is almost always accompanied by change of character, and especially by the loss of sense of duty, honour, and affection. If it lasts long, intellectual enfeeblement generally appears. In a great many cases frequent heavy drinking precedes this state, but not necessarily so, for it is sometimes brought on by such things as fevers, mental shocks, and the like.

Is drinking inordinately ever a symptom of lunacy?—In the last class of persons it is; it is a symptom, and not a cause of the disease. It is a symptom of cerebral disorder, and not the cause; but when habitual drinking has been the precursor, this should be borne in mind, that the cause may become an effect, when it is in the nature of the effect to prolong and aggravate the cause. What I mean is this, that constant drinking may beget this ungovernable craving; indulgence strengthens the craving; and so a man goes on from bad to worse.

Why does drinking lead to insanity in some people and not in others?—In some men habitual drinking leads to other diseases rather than insanity. Many men of great proclivity would escape but for excessive drinking. The excessive drinking determines the insanity to which they are otherwise disposed.

Have you paid any attention to the hereditary influence of drunkenness or excessive drinking?—Yes; and I think it quite certain that children of habitual drunkards are, in a larger proportion, idiotic, are in a large proportion themselves habitual drunkards, and are in a larger proportion liable to acquired insanity—that is the insanity which comes on in later life—than are the children of other people. But this should be kept in view, that many habitual drunkards are also predisposed to insanity; the excessive drinking in them is itself the form which the insanity takes, and what they transmit to their children is really that disposition to insanity which they had themselves, and which may find expression in the children in idiocy, insanity, or crime. The ordinary cases of insanity which have drunkenness as their origin are treated just as other cases of insanity—such as those produced by excessive sexual indulgence. Both kinds of cases result from a violation of the laws of health. When insanity comes, whatever its cause, we cannot make any difference in its treatment. In my opinion, some special legislation is required on the subject of habitual drunkenness, but it is very difficult to say how it should be done, and to what extent legislation should go. I would treat in asylums all those persons whose symptoms of insanity are such that they can be certified as lunatics. They should be treated as lunatics while these symptoms last. So far legislation is not needed. It is only required in so far as concerns those that cannot be declared insane. I would not extend it to persons who got occasionally drunk—say once a-week. There should be some evidence of loss of control, something more than mere company-loving and joviality; because, although

that intoxication may be of frequent occurrence, and although we know that it is the very thing that will lead to the ungovernable craving after drink, if we attempt to take charge of these classes, we should wrong the sober and well-doing classes. The two objects to be aimed at should be the cure of the drunkard and the comfort and well-being of society. By prolonged compulsory abstinence, under conditions favourable to the general health, we might hope to do some good. Our experience in Scotland is far from encouraging, but the experiment has never been fairly made, and I think, if it were tried under special legislation, we might reasonably expect good results. All these are grounds for tentative legislation, and would give us an opportunity to acquire the experience we need. At the same time, there are certain safe-guards that would be required. The legislation might lead to abuse, and this abuse it would be necessary to guard against. It should not be left entirely to medical men to settle this, as it is not entirely a medical matter. There should be something of the nature of an inquest; and, so far as Scotland is concerned, I think the order of a Sheriff should always be necessary to authorise the detention of a drunkard, and that the duration of that detention should be fixed in the order. There should always be a way of prolonging the detention in certain cases, and likewise a channel of appeal for cases of undue detention. I think it would also have to be provided that persons might be received voluntarily into the institutions, but should not be allowed to leave sooner than a fixed time. I think the objects I have spoken of could only be obtained in separate and special institutions. These would be of two kinds—one for paying, and the other for non-paying patients, and ought all to be licensed by some body authorised to do so. The institutions for paying patients might be left to private enterprise. They would probably be of various kinds—some with higher and others with lower rates. Very likely there might be another distinction. Some might be established for those who entered voluntarily, and others for those who entered involuntarily. With regard to the institutions for non-paying patients, I think parishes or combinations should have power to assess for their existence, or use existing buildings. This would be merely permissive legislation, but perhaps it might be justifiable, because our present knowledge on the subject is so limited. It would at least make a thing possible which many people desire, and to which few people would be opposed if it were not made too wide and too binding. I would like to see one institution erected in some central part of Scotland, paid for either out of the Consolidated Fund or by general assessment. This would give us experience. Eventually, if the system were found productive of good results, and if other institutions were established either by private enterprise or by combinations, then this institution could be used solely for patients committed by order of the sheriff or magistrate. But till other institutions were made, the central one might be used by any patient for whose maintenance a Parochial Board was responsible. I

think it would be well if sheriffs and magistrates had power to commit to these institutions for some fixed period, which should not be too short, any person who has been convicted of drunkenness or breach of the peace while drunk, say three or four times within six months. Also, if a man proves himself to be dangerous through insanity which he has brought upon himself by drinking, the lieges should have power to protect themselves. All they can do at present is to send him to an asylum ; but he gets sane in a very short time ; then he gets discharged, although he has not been cured of his craving for the drink that led to his insanity. Under such an Act as here contemplated, his detention would be authorised, notwithstanding his apparent recovery, in the hope of preventing a recurrence of insanity from the same cause. The repeated conviction for disorderly conduct while drunk might be held to indicate that loss of control of which I spoke. I would apply these provisions of the Act to all classes of the community, making no exception. In every pauper case the cost of maintenance should be reduced as much as possible by the work of the inmates, and with regard to them there should be compulsory work as well as compulsory detention. It is very difficult to make people work profitably, and it might be necessary sometimes to resort to profitless work. The frequency with which this would be required would depend entirely on the management of the institutions. Then it has to be borne in mind that the doing of the work would increase the chances of the patients' recovery. I do not think patients would often earn more than they cost, but where they did, I think they should get the benefit of it. Such legislation would not tend to diminish drunkenness, except in the way of making the young feel that it was a disgrace to get drunk, and that it was dangerous to be often drunk, as it might lead to confinement. In legislation of this kind we don't strike the root. We are simply proposing to mitigate the effects of a mischief we have made no effort to check, and this we do as well for our own comfort as for the good of the drunkard. The proper way of reducing drunkenness would be by giving the young a sounder education, so as to fit them to be the intelligent guardians of their own health.

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## PART II.—REVIEWS.

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*Wilhelm Griesinger's Gesammelte Abhandlungen.* Two vols.  
Berlin. 1872.

We have received, through the kindness of his widow, a copy of the collected works of the late Professor Griesinger, which form two goodly volumes : the first volume being devoted to articles, addresses, and reports on matters relating to

the physiology and pathology of mind and brain, and to the treatment of the insane; the second and larger volume consisting of articles dealing with matters of general pathology, and with different diseases. For Griesinger was nowise a specialist in science or practice; the work which he has done in general medicine is not less valuable than that which he has done for psychology; and we are inclined to think that it was in great measure owing to the breadth and depth of his mental culture, to his not being merely a specialist, that he was able to do the good work which he did in psychology.

Such a collection of essays and papers as constitutes these volumes is, by the nature of the case, chiefly of historical and personal interest: of historical interest as showing what were the chief questions in each subject at the time of their publication, and what changes have taken place since; and of personal interest, as showing the relation of Griesinger to the progress of knowledge, as a pioneer and a worker. When we have entered into the promised land in matters of science, we are too apt to forget the early labours and difficulties of those who have made the way easy for us; and so it frequently comes to pass that a man whose work in life was all important, and whose reputation was great at his death, is little thought of by those who come after. Science, in its progress, devours its own children.

We will quote what the Editor, Dr. Wunderlich, says in reference to the character of Griesinger's scientific work:—

It would carry us too far to enumerate all the steps of progress connected with Griesinger's name. He certainly was the first to introduce the knowledge of recurrent fever into Germany. The diagnosis of diseases of the brain was for the first time treated methodically by him; and he first made accessible to diagnosis certain special forms of disease of the brain. Some peculiar diseases of the liver first attained a practical importance through his labours. He for the first time brought into prominent notice the importance of certain parasites in exotic forms of disease. On rheumatism, scrofula, and diabetes he has opened new views, &c. None of his works or treatises have become valueless through the lapse of time. He either places well-known matters under new points of view, or resolves much discussed questions, or discloses quite new and hitherto unknown or neglected relations.

While thus making valuable contributions to different matters of pathology, Griesinger has, from the beginning to the end of his scientific career, evinced a very strong and, as every one knows, an extraordinarily fruitful interest in mental disease. His first essay in this

direction, "On Psychological Reflex Actions," attests the depth and maturity of his views. It is wonderful that an assistant physician of 22 years of age—in a well-managed asylum, it is true—could have acquired the necessary impressions and adequate knowledge to enable him to consider on all sides this wide and difficult province, and to accomplish such original work in it.

It was not until more than twenty years had elapsed that Griesinger found an opportunity at Zurich of observing a sufficient number of the insane, and yet during that period of removal from the material of observation some exemplary productions appeared; even his work on mental diseases, which is well known and valued in all civilised countries, originated during that time. No one doubts the intensity of Griesinger's intellectual grasp; but if a proof is required, this alone will suffice.

Griesinger himself found some years later that his treatise on mental diseases did not exhaust the details of events and relations in these disorders, representing, in fact, one manner of considering the subject rather than containing a general pathology of mental disease. How much reflection he gave to the infinitely more difficult treatment of special psycho-pathology, and how he himself furnished the foundation stone in his later contributions and treatises, will be easily recognised from the study of the glorious products of the last years of his life.

From the collection of his works, which is not quite complete (as for various reasons certain articles had to be omitted), the reader will recognise the fecundity of thought, the logical accuracy, the acuteness of judgment, and the genial conception of this memorable man.

Several of the contributions to the first volume, which is the one specially interesting to our readers, have already appeared in this Journal, having been translated at the time of their appearance. But besides the memorable article on "Psychical Reflex Action," it contains several other important contributions to the physiology and pathology of the brain which have not been translated into English. Among these are a paper on "Rheumatic Affections of the Brain," another on "Certain Epileptoid Conditions," another on "A little known Psychopathic Condition," and others on "Hæmatoma of the Dura Mater," "Cysticerci and their Diagnosis," "Aneurism of the Basilar Artery," and the "Diagnosis of Diseases of the Brain." No one can read any of these articles without finding much matter profitable for reflection, and suggestive for future observation.

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*Lectures on the Psychology of Thought and Action, Comparative and Human.* By W. D. WILSON, D.D., LL.D., Professor of Logic and Metaphysics in the Cornell University. Ithaca. 1871.

Coming from a Professor of Logic and Metaphysics, this book, which makes no claim to be a complete treatise, is somewhat remarkable. The first two chapters, which treat of the structure and functions of the nervous system, are striking evidence of the way which a physiology of mind is making in quarters where, perhaps, we should least look for such progress. The author lays it down as a fundamental position that Physiology and Psychology are so intimately connected that there is no possibility of understanding one without some knowledge of the other. We need hardly say that we agree with him; only we would extend the proposition, and say that there is no possibility of understanding psychology thoroughly without a thorough knowledge of the physiology of the entire bodily organisation. The danger now is lest writers on psychology should content themselves with a general knowledge of the structure and functions of the nervous system as this is to be obtained from manuals, and should not realise the fundamental facts of organisation. They must truly assimilate physiological views, must incorporate them into their habit of thought, if they would judge rightly how much of mental action they are capable of explaining. When one reads the criticisms which some psychological writers pass upon physiological views of mental function, it is with a feeling of something like despair of the possibility of persons who start from such different standpoints ever coming to a mutual understanding.

Dr. Wilson is not one of those against whom the charge of a merely superficial acquaintance with nerve functions can be justly made. It is quite clear that he has studied them with an earnest desire to understand them; and the result is that he is convinced that "many of the facts and phenomena of psychology which have hitherto been considered as belonging to mental science, do not belong to it at all. They are purely physiological." He perceives that "men and animals, while living with a mere nervous system and without mind at all, would be active beings and perform many at least of the actions which they now perform, and in a manner so nearly like the present that no mere outside observer could distinguish them one from another." Thus, then, there is in the

organism as a mere physiological machine a power, not mental, of accomplishing many complicated actions, and in a manner so closely simulating mental actions that the outside observer cannot detect the difference. We are not inclined to dispute that proposition, but we may fairly ask Dr. Wilson how he reconciles it with what he says near the commencement of the third chapter on the *Nature and Reality of Mind*?

Can mere matter think? Doubtless the sensory ganglia and the brain itself, as I have all along been saying, are the instruments and organs of thought, and in one sense, regarded as instrumental causes, they may be said to perceive and think. But they are mere instruments, and one might as well speak of his pen as writing his letters as of his brain as doing his thinking for him. The analogy is a close one, and the brain thinks in the same sense as the pen writes—as an instrument and nothing more. And as there must be a hand to guide and move the pen, so there must be something to move and guide the hand.

But if the brain be such a mere passive instrument in thinking, acting as mechanically as the pen in writing, how comes it to pass that it is ever capable by itself of originating and accomplishing actions so like those which mind dictates that they cannot be distinguished? The pen never indulges in a freak of writing without help of the hand—from the beginning to the end of its career it is the instrument and nothing more. And again, if the brain is capable of doing so much on its own account, how and where is it that of a sudden it bids farewell to its powers and becomes a mere passive instrument in doing for the mind what it had previously done without it? We fear that Dr. Wilson may be charged with the high crime and misdemeanour of having actually made the mind a superfluous hypothesis. He has certainly got himself into a big difficulty by allowing so much to the purely physiological action of the body.

The passage which follows strikes us as not a little strange—

It is common to speak of animals as thinking, reasoning, willing, &c., and if these acts imply mind (and if they do not, nothing that man performs does imply it), then those who ascribe these acts to animals ascribe to them, by necessary implication, mind also. But I doubt if we find proof of mind anywhere below man.

It is quite evident then that Dr. Wilson might properly doubt the existence of mind in man, seeing that thinking, reasoning and willing do not imply mind in animals, “and if they do not, nothing that man performs does imply it.”



However, he is very far from doing *that*, as will be easily understood when we say that after pronouncing unsatisfactory the theories that have been devised to explain the act of perception, he declares it to be “the simple, uncompounded act of an invisible agent.” Is this psychology? may be fairly asked. When a matter cannot be explained on the basis of such knowledge as we have, it seems to us a great pity that men are not content to say so, and to leave it there for the present, instead of occupying the unknown ground with hypotheses that may or may not be true, or putting together words that are meaningless, so far as human conception goes. How the act of perception is to be explained in animals, which are without the invisible agent, does not appear.

The author maintains that he allows to animals in his views—

All that modern materialists of the school of Spencer, Maudsley, Darwin, Huxley, &c., allow to man. It is precisely reflex action, just that and nothing else, though they do not call it by that name. In fact, it could be nothing more without the existence of mind as a spontaneously acting substance, ontologically distinct and essentially different from matter or any material organ. They, therefore, cannot complain of this theory, however much they may object to the name I give it, or dislike the difference I make between man and animals.

There is not, of course, any novelty in his opinion that man has a soul, or spirit, or mind, and that the animals have not anything of the kind, nor, perhaps, in the argument from the existence of spontaneity in man, on which Dr. Wilson mainly bases it. Defining matter to be always and under all circumstances *inert*, he asserts that there is something in man which acts spontaneously, and which is not matter; and that we may properly call mind. “If these men choose to ascribe spontaneity to matter, it is their affair and not mine. I am content to leave them to arrange that among themselves. I shall, however, expect that they will tell us where inertia ends and spontaneity begins; and with the latter, we metaphysicians will content ourselves, and will ask to be permitted to call it ‘mind.’” Inertia or spontaneity—on which horn of the dilemma choose ye to be fixed? We think it probable that they would not consent to be fixed on either horn; that they might maintain that there was no such real dilemma at all, only one of Dr. Wilson’s dialectical fashioning; and might contumaciously assert that if he would extend somewhat his knowledge of matter he would extend his knowledge

of inertia, and if he would pursue deeper his investigations into mind he would modify considerably his notions of spontaneity.

However, we must refer those who wish to know how much Dr. Wilson has to say in support of his views to the book itself. Though there is much in it with which we cannot agree, there is much also that will be found suggestive and profitable. This brief notice must not be supposed to do full justice to its scope and character. It consists of twelve lectures, constituting as many chapters, the subjects of which are—The Nervous System; Sensation and Emotion; Nature and Reality of Mind; Sense-Perception; False Perception and Imagination; Insight and Reasoning; Appetites and Affections; Rational Emotions; Moral and Religious Sentiments; Volition and Instinct; Voluntary Action; Memory and Recollection.

If we might in all sincerity make a recommendation to Dr. Wilson, it would be that, before publishing the next work which he has in hand, he would read such a physiological book as Helmholtz's "*Handbuch der physiologischen Optik.*"

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*On the Relation between Science and Religion.* By GEORGE COMBE. Fifth Edition. Maclachlan and Stewart. 1872.

We are glad to see a fifth edition of this useful book, which we have just read for the first time. Like many other persons, probably, we have been prejudiced against it on account of the phrenological views which its distinguished author was known to entertain so strongly. While still thinking it a pity that he should have accepted such a division of the faculties of mind as phrenology inculcates, we cannot but express the gratification which its perusal has afforded, and a sense of something like shame and regret that we had not sooner profited by its sound philosophy and varied information. The large circulation which Mr. Combe's works have had may, we trust, be accepted as evidence of the good influence which they have exercised. The relation between science and religion is now a great question of the day; much discussion must inevitably take place upon it; we may consider, therefore, the appearance of a fifth edition of Mr. Combe's work to be opportune, and recommend it to the attention of those who have not hitherto made themselves familiar with its contents.

## PART III.—PSYCHOLOGICAL RETROSPECT.

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### 1. *French Retrospect.*

By T. W. McDOWALL, M.D., Assistant Physician, Inverness District Asylum.

In the present retrospect we shall attempt to give, as briefly as possible, what is more interesting or important in the numbers of the "Annales Médico-Psychologiques" from September, 1871, to July, 1872, both inclusive.

#### *Case of Ambitious Mania with Transitory Maniacal Attacks.*

In this paper, by Dr. Dagonet, we have the interesting story of one of those people, who, certainly insane, appear more rogue than fool, and are a frightful torment to all who have the misfortune to have anything to do with them. It is needless to refer to all the amusing and characteristic events in the life of the patient related by Dr. Dagonet, for we have, unfortunately, plenty such in this country. It is from this class of individuals that are derived the men who come into prominence during popular excitements, political, religious, or otherwise; who, already insane, become outrageous through the surrounding commotion, and proceed to all sorts of extravagances and follies, and who are at last taken care of by their friends or the officers of the law, and are again set at liberty when such a step is deemed advisable. Well may it be said of these unfortunate people, "they are the scourge of their family, as they are of society, and especially of the physicians and magistrates who have the sad duty of having anything to do with them. They overwhelm them with their complaints and recriminations, they direct incessant attacks against them, they infuse into their persecutions a passion, a kind of rancour, which already characterised their troublesome mental disposition, and, to employ the happy expression of a distinguished professor, from being the persecuted, as they say, they become veritable persecutors." During the great alarm and excitement which prevailed in Paris in September, 1870, Dr. Dagonet's patient ran about the streets with a white flag, with a red cross thereon, and the following inscription:—"Peace, liberty, humanity, democratic fraternity among all people. Jesus, Mary, vive la nation! Joan of Arc, virgin and martyr, defend us." Now it does appear remarkable that such a person, a man who it would seem had been a nuisance and mischief maker for twenty years, should in three weeks be discharged, and thus allowed to begin his old habits, and to persecute the doctor under whose care he had been placed. Un-

doubtedly such patients are dreadful pests in asylums, destroying in great measure all discipline and order; but it is very questionable if we are therefore justified in getting quit of them by turning them loose on the public. Since all unprejudiced men are agreed that the population of asylums should be kept as low as possible, let all harmless demented depart to private dwellings, but at the same time let such unruly spirits as the one under notice be detained for lengthened periods, so that every effort may be made to teach them regular and industrious habits.

*On the Diagnosis of General Paralysis, clinically considered.*

We have here the conclusion of Dr. Drouet's paper. He presents us with cases illustrative of the various difficulties besetting the diagnosis of general paralysis, and dwells more at length on the danger of confounding some cases of senile dementia and chronic alcoholism with that disease. The following extracts will indicate, so far, the opinions of Dr. Drouet on this subject:—

“Let us say at once that the confusion is greatly due to the inexactness of the terms employed by the specialists of our day. The word *general paralysis*, indeed, is quite as inappropriate to indicate a pathological entity as the word *alcoholism* to designate another. General paralysis is only a symptom (a very important one, it is true) of a disease of the central nervous system, capable of being detected through a great number of other symptoms, of which the collective presence is pathognomonic. Alcoholism is, and can only be, a cause of disease.

“Under these various appellations is concealed, in our opinion, a single and distinct organic disease of the central nervous system, now demonstrated through numerous researches made with the microscope. If this affection be indicated by disorders of the general sensibility, amnesia, incoherence, enfeeblement of the mental faculties, inequality of the pupils, hesitation of speech, trembling of the tongue and hands, if it is complicated by the hallucinations and illusions characteristic of alcoholism, if previous intoxication of the patients by means of fermented liquors be proved, if no grandiose ideas exist, and finally, if enfeeblement of the power of movement be not yet well marked, physicians hesitate, and rightly, too, to diagnose general paralysis, that is to say, really a symptom which is not present. They then employ the term chronic alcoholism. But if the paralytic symptoms come to be added to those already enumerated, or if the disease be complicated with optimistic delirium, they agree in affirming the existence of general paralysis.”

After stating that the paralytic symptoms are to be regarded as the result of organic changes in the nervous centres, and as indicating the disease in its worst form, the writer continues:—“How can we believe, besides, in the existence of two affections so nearly allied that they appear to the most experienced eye to be constantly trans-

formed into one another? How can we admit that these diseases have so many points in common that it is impossible, during very long periods, to distinguish the one from the other? Is it not more logical to consider these cases as belonging to a single organic affection, varying in its external manifestations according as it is localised in this or that part of the cerebral or medullary nervous substance, according as it is more or less advanced, and is secondary to this or that cause?"

We have given enough to show that the paper is worthy of careful perusal, and to cause us to look forward with interest to the results of his pathological investigations, which alone "can demonstrate in an irrefutable manner that the very various symptomatic disorders of which we have just spoken are due to a single histological lesion, always the same in nature, but more or less diffused throughout the various nervous organs which, taken together, constitute the cerebro-spinal system."

*On the Influence of the late War upon Mental Derangement in France.*

At a meeting of the Société Médico-Psychologique, on 26th June, 1871, a paper was read by Dr. Morel on the "Pantophobic Delirium of some Melancholics (*aliénés gémissieurs*), with the influence of the occurrences of the War upon the manifestation of this form of insanity." We shall again direct attention to this communication, but in the meantime pass on to the discussion which followed its reading. As the subject is really one of great interest, perhaps we may be pardoned for dwelling on it at some length, even though it be of no special scientific value. The probabilities are that, during the present generation at least, no such dreadful calamities can befall France and its great capital as those which have recently crushed that unhappy country.

In his paper Dr. Morel insisted especially upon the very great frequency of pantophobic delirium as a result of fear of invasion by the Prussians, and of great distress arising from the war. Dr. Bourdin considered the subject of the causation of mental disease one of great difficulty, about which many rash statements are made. He believes that events, of whatever nature they may be, have only a secondary action in the production of mental disease; that they act only when they find a place prepared for them; otherwise they remain without effect. He considers that great civil commotion acts only on the form of the disease, not upon its essential nature; and that, to show the really productive influence of recent events, it would be necessary to prove that these events have caused special pathological forms. Dr. Morel had, however, failed to do so. After some further remarks on the mental condition of children begot during the war, and on the number of suicides, Dr. Legrand du Saulle began his account of the mental condition of the inhabitants of Paris during the events of

1870-1. He altogether denies that political events exercise a very marked influence upon the development of insanity, or that any become insane through these causes except the predisposed; because, he adds, these great social commotions are only of a temporary nature. We would willingly relate at greater length Dr. Legrand du Saullé's views on the causation of insanity, and make a few remarks thereon, but must be very brief. First of all it is evident that too little attention is given to the differences between the predisposing and the exciting causes of insanity. Secondly, the probabilities are that statistics referring to asylum population during periods of civil commotion must of necessity be defective, and that any views founded on such data must be open to grave suspicion. To us it appears that from the very circumstance of the case it is impossible to arrive at an accurate numerical estimate of such a question; but it might easily be settled, one way or another, by means of facts already in our possession. We would look at the matter in the following way:—Let it be granted that in a given population there exist at a given time a given number of people (say ten) predisposed to mental derangement. Now, were these people entirely protected from external exciting causes, such as arise during the struggle of life, it is quite evident that they could become insane only through exciting causes arising within their own bodies, as, for instance, from parturition, epilepsy, and such like. They might even pass their lives without ever becoming insane, though strongly predisposed thereto. On the other hand, let these same people be exposed to the calamities and hardships of war, to loss of friends, property, and employment, to anxiety about their own lives and the safety of their relatives, and the result must be that some of them break down and become insane. We, however, do not urge, like Dr. Morel, that a special form of insanity is produced. All experience points to the conclusion that unusual excitement precipitates the occurrence of mental disease. In support of this statement we can appeal to what occurs in this country during communion seasons and times of so-called religious revival. Here accurate statistics are easily enough procured, and the deduction therefrom is quite conclusive. But the fact is, that to decide such a point we should not appeal to statistics which, according as they are prepared, prove anything or nothing, but we should deal with the question in a large and philosophical way.

After Sedan the fears of the extra-mural population of the Seine became intense, and were increased by the absurd reports of the cruelty of the Prussians. When the terror was at its height it is interesting to observe that it produced very dissimilar effects. "Some, and these composed the minority, were silent, broken-hearted, calmly resigned; others, excited with anguish, screamed, vociferated, cursed the invaders, were so agitated that they were incapable of making the slightest preparation; some wept, lamented, moaned, constantly repeated the same words, regretted that they had lived so long, and

called for death; others quaked, were afraid of everything, were scared, anticipated evil in every quarter, and, true victims of sensorial illusions, they believed they heard tramping of the scouts' horses, the inauspicious tolling of the alarm bell, or the whistle of the advance guard of the enemy, and believing that they were about to be seized and immediately killed by the troops, they ran to conceal themselves in some obscure corner. At this time some sudden cases of suicide occurred." From the beginning of August until the 15th September, 1870, the number of individuals insane, or supposed to be so, decreased somewhat, at least the number presented at the Municipal Dépôt for Lunatics was smaller than usual; a result easily explained by circumstances. When Paris was invested matters became very bad indeed. "Intellectual excitement was general, activity was consumed in badly organized proceedings, in useless speeches, in expensive professional idleness, and in attacks of excessive drunkenness. The workman read the newspapers, did no work, drank the whole of his pay without regard to thrift. His wife and children were at home, or wandered about the streets; pecuniary difficulties threatened them, misery stared them in the face."

The Sergents de Ville and the Gardes de Paris have disappeared since 4th September. The National Guard was charged with the police arrangements of the city, and arrested suspicious persons who prowled about the fortifications. The crowd mistook them for Prussian spies, and sometimes maltreated them. They were lunatics at liberty, wandering about without any special object.

"Among the people of this description I examined one day a supposed German, nearly disguised as a priest, and engaged in some mysterious intrigues. He wore a very long black beard, spoke with surprising facility, and presented himself with an almost intimidating assurance. He was a French missionary, he was zealous and brave, and knew China and Japan as well as Paris and Bicêtre. He had been everywhere, and many times his reason had been temporarily obscured. I found him exalted, but lucid, and certainly inoffensive. He returned a second time, covered with numerous contusions. He had been maltreated near the Prison of Vincennes by a drunken patrol. I reprimanded this repetition of his old offence; I engaged him to act as military chaplain. I still reported favourably upon his mental condition. What became of him? On the 24th May, 1871, at Roquette, at 7.45 p.m.—the first of the hostages—he was shot! He was called the Abbé—.

"Whilst the National Guard brought every day to the Dépôt men in all stages of drunkenness, the government of national defence received numberless letters from a multitude of advisers, for the most part affected with some partial delirium or general paralysis in its first stage."

At this time many cases of melancholia, some of them very bad, appeared in women. They were characterised by prostration, weeping,

moaning, pantophobia, hallucinations of hearing, dislike for life, and refusal of food.

It is quite evident from Dr. Legrand du Saulle's account, that great and most laudable efforts were made to provide for the comfort of the multitudes who were thrown upon the care of the government at a time when it was embarrassed in every direction. But in spite of all that could be done, great suffering prevailed as winter advanced; provisions became scarce, small-pox and other diseases carried off hosts of victims. As a result of all this, drunkenness greatly increased. The following is a picture of the city during December:—"At the Dépôt, if alcoholic delirium is far from diminishing among men, it is more and more frequent among women. Horse-flesh is so scarce and dear that many people soak their bread in wine. The most varied disorders—the most trivial as well as the most grave—begin to affect the intelligence and the cerebro-spinal system, and there is observed a very considerable number of cases of subacute alcoholism, with delusions as to persecution, fears of being pursued, captured, and shot, hallucinations of sight, great distress of a dismal, melancholic character, thoughts of suicide, absolute sleeplessness, &c., &c. Genuine cases of monomania of persecution also occur, but general paralysis is rare. Some women, already presenting the most evident signs of great physical impoverishment, become the victims of profound melancholia." In January matters had come to a very bad pass indeed, as the following fully proves:—"During the whole month of January the cold was excessive; the newly-born and the aged died in frightful numbers. Milk could no longer be procured for children and the sick; the allowance of provisions was wretchedly small, the bread was black, fuel was everywhere scarce. At the doors of the canteens and of the municipal stores for meat and bread, it was necessary to wait so long that many women, shivering with cold, could not endure the fatigue and suffering which such a position involved. They returned home without provisions, yet supported themselves in a most mysterious manner. At length they fell into a profound state of depression and debility, quenched their urgent thirst with wine and water, and some of them, in a short time, suffered from intellectual confusion, illusion of the senses, and genuine delirium, all arising from inanition. In proportion as they were more regularly and more wholesomely fed, these cases, touching victims of the siege, diminished and disappeared, as did also the nervous symptoms mentioned. In the space of a few days I had to examine many cases of that rare condition which has been described under the name of *stupidité*, and which is now more correctly called *mélancholie avec stupeur*. The patients were motionless and insensible; they looked from them in a very confused way, scarcely heard, did not suffer pain, could with difficulty pronounce a few words, and were overcome by an internal delirium of a melancholy nature, of which they were conscious, and about which they had a perfect recollection after their return to



mental health. Their eyes were half open and fixed, their saliva flowed from the mouth, they passed their stools involuntarily. They had sometimes terrific hallucinations; they then made desperate attempts to injure themselves by mutilation or suicide." At the time when the preliminaries of peace were signed and an armistice concluded, the cases of insanity were chiefly of a kind in which depression was the leading feature; the majority did not require confinement in an asylum, but were in great want of good bread, fresh food and wine.

During the reign of the Commune the municipal machinery was quite disorganised. The National Guard brought scarcely two lunatics a-day to the Dépôt, although the average usually varied between seven and twelve. Delirium tremens became of frequent occurrence, and was of a bad type and rapidly fatal, and, as a result of the very serious reverses of fortune—through commercial disasters or loss of employment—the acute forms of mania and melancholia appeared in those predisposed to insanity.

It would be easy to continue making extracts from this paper, but it is unnecessary at present, especially as M. Lunier intends to produce a work with reference to what occurred in the lunatic asylums during the war.

#### *On the Pantophobia of some Melancholics.*

In this paper Dr. Morel considers the subject in a general manner, and also in reference to the effect of the late war in producing a class of cases to be hereafter described. Having given a general description of extreme and chronic cases, he proceeds to sketch another class, whom he calls "panophobes plus sociables." "These cases are numerous in our asylum for women, and the moral causes which have afflicted us during those disastrous years 1870-71, have not been without influence, but quite the contrary, in increasing the number of cases of this description. We cannot, moreover, be astonished that, for reasons easily understood, this variety of insanity is observed much more frequently among women than among men.

"In our asylum of Saint Yon during this year we have had numerous cases of pantophobia. The women labouring under this affection presented themselves to our observation in two different conditions. In one they appear agitated, constantly moving about, and are victims of all the pangs of fear and despair. They say they are condemned to be burned, buried alive, &c., and nevertheless, they cease not to repeat that they are innocent, and that they have done nothing to deserve the latter punishment. Sometimes, however, they reproach themselves with offences so insignificant that we are tempted to think that they do not talk seriously. When, the day after their most violent and frantic lamentations, we attempt to show them how mistaken they had been in their predictions of the day before, they will say that they have only been delayed, and will fix on to-morrow for

the accomplishment of their torment. It is the physicians, the attendants, more rarely individuals not residing in the asylum, who are to be their executioners. Nevertheless, such patients, and this is a characteristic sign, never exhibited any dislike or hatred towards those about them. Contrary to what we observe in cases of monomania of persecutions in some maniacs, in epileptics, or general paralytics in the first stage, they do not become violent, they do not threaten violence or assault," &c. Dr. Morel believes that it is only in exceptional cases of pantophobia that we observe suicide or hallucinations of sight and hearing; he thinks he can even go to the length of stating that, in cases of pantophobia free from all hereditary influence, he has never observed suicide, if we except what may be called *indirect suicide*, through refusal of food. Another feature in these cases is that they are incapable of playing a part, of dissembling as to their impressions, of deceiving one as to the reality of their abnormal sensations, as is done by some patients who have power enough to simulate recovery, and thus obtain their discharge; they are essentially more or less echoes, repeating in spite of themselves not only their own internal impressions, but the impressions of patients belonging to the same pathological family. Such cases have been observed to imitate the peculiarities and gestures of one another.

From the length of Dr. Morel's paper, it is a somewhat difficult task to give in a brief summary anything like a correct idea of the subjects touched on. Having given a sketch of the mental condition of the inhabitants of the Seine-Inférieure at the time of the invasion by the Prussians, he proceeds to record a number of cases to show that though pantophobia is not a new disease, yet the terrible years 1870-71 increased such cases to an unusual extent. He summarises the cases as follows:—"I think I have produced a sufficient number of observations to demonstrate the intimate relation of cause and effect between terrifying impressions and the delirious manifestations of certain pantophobic and lamenting (*gémisseurs*) lunatics. Depressing mental suffering in individuals, with pre-existing emotional excitement, powerfully aid the action of fears and terrors which assault minds in the midst of social convulsions and the horrors of an invasion. I do not pretend to have described all the perturbations and diseases of the nervous system which were due to the influence of fear and terror, and which all practitioners have observed in the unexpected exhibition of hysterical or epileptic attacks in persons who have been greatly alarmed. That was not my object. I wished to show how much the influences which I describe contributed to develop that variety of the *vesaniæ* which I have described under the name of pantophobic delirium of certain wailing (*gémisseurs*) lunatics. These patients are worth the attention of observers, as constituting a special variety of the great genus melancholia of the ancients, and of lypemania of Esquirol."

Dr. Morel then proceeds to consider the differential diagnosis of

this special class of cases, and in doing so treats the reader to what finds but little favour in this country in the present day. We refer to the classification of lunatics according to the mental symptoms. This system, when faithfully carried out, leads into such confusion that it appears to defeat the chief object of any classification—simplicity. According to the skill of the operator, we believe that the delicate hair-splitting process may be carried on until we arrive at what may be considered complete success in that department, every case forming a distinct class by itself. We then discover that we are exactly where we began, and in our disappointment condemn all classifications as snares and delusions.

*On the Employment of the Bromides in the Treatment of Nervous Diseases.*

At the meeting of the Société Médico-psychologique, on 31st July, 1871, this subject was again discussed. Dr. Legrand du Saule did not consider the intensity of the eruptional acme an indication of the favourable action of the drug. In some very fortunate cases, however, he had not seen any eruption; besides, at an advanced age, the eruption due to the action of the bromide scarcely appears, or is altogether wanting, whilst, nevertheless, the convulsive disease improves in a very marked manner. The principal objections which he makes against the use of the bromides are the air of silly satisfaction which many patients present, slight stupor and drowsiness, slight disassociation of ideas and words, the difficulty in writing, the changes which appear in the body of the writing, and the unfortunate and unconscious facility of writing one word for another, as is done by some aphasiacs. The drug also acts as an aphrodisiac, and produces a most troublesome form of acne; fœtor of the breath has also been produced, but this may be avoided by giving the salt in an enema. The speaker noticed other matters in connection with the use of this drug, praising it especially as a hypnotic, but it is unnecessary to notice the subject further.

*Asylum Notes on the War.*

At a meeting of the Société Médico-psychologique Dr. Foville gave some very interesting information as to the effects of the war upon the patients at Charenton. From the asylum vast military movements and engagements could be observed, yet the majority of the patients took no interest in them whatever. Some of them, quite able to understand what was going on, refused to be convinced as to the reality of what they saw, and maintained that the whole thing was intended to deceive them. One patient repeated daily that this pretended war was in reality only a comedy, of which all the scenes had been previously arranged between the Prussians and the French government; the guns and cannons were only loaded with powder; all reports as to the number of killed and wounded were pure invention.

If by chance a ball had been fired, it was by some rogue who had secretly slipped it into his rifle, for no cannon had been charged with ball; it was noise, and nothing more. Doubtless many people were caught with the farce, but he was not one of these.

Another patient, who called himself Paul-Emile, and who believed himself destined by God to ascend the throne of France, read the newspapers regularly, and appeared to follow all the events in a very intelligent manner; but he affirmed that he was not fool enough to accept as real either the accounts which he read or the incessant discharge of artillery which he heard. During the second siege and the terrible cannonade of the last days of the struggle in the streets of Paris, he maintained the same position; even yet he declares that he has never been the dupe of all that people have told him, that all the noise which was heard was produced by some fools who pretended to fire the cannon to amuse themselves, but whose real end was to cause him to lose all patience, and to have a pretext for causing him to perish with hunger by reducing more and more the allowance of food.

A more interesting case, however, is that of a captain of the Imperial Guard, who, labouring under delusions of persecution and numerous hallucinations, was admitted into Charenton some weeks only before the declaration of the war. One might indeed have expected from his profession, from his having numerous relatives in the army, from his comparative lucidness, which on many subjects was perfect, that he would have been one of the inmates who would have been most interested in the military events, and who would have followed the disasters of the war with the greatest attention. Exactly the opposite occurred. The declaration of war, the defeats of Woerth and Reischaffen, the great battle under Metz, the siege of that city and of Strasburg, the disaster of Sedan, the fall of the Empire, the substitution of the Republic in its place, the investment of Paris, the capitulation of Metz, through which his regiment and all his comrades became prisoners, the conflicts under Paris, of which he saw with his own eyes various episodes, the bombardment of the forts, which he heard incessantly, the capitulation of the capital, the defeats of Chanzy and Bourbaki, the insurrection of Paris and its deplorable consequences, the second siege, and the re-organisation of a new French army, all were to him as if they had never happened. Each event was related to him by several people, but he would not believe a word of what he was told. He never ceased to maintain that France was at peace, the Emperor at the Tuileries, that all means of communication were open, and that we made common cause with his persecutors by refusing to forward his letters to his parents, and by withholding their answers to him; that all the noise made about the house by the cannonading was the work of some officers of his regiment—his open enemies, who were bent upon annoying him, and whom he mentioned by name. All means were employed to convince him, but

without success. He resisted all arguments, replying to them by taking exception to them, or by systematic denial.

Dr. Foville himself gave him the newspapers which related at length the great events which followed one another in a manner so disastrous for France and its army. He read them without the least emotion, and returned them, remarking, with an ironical smile, that it was a journal printed by his enemies, solely to deceive him; he then upbraided Dr. F. in a friendly way for becoming an accomplice in the fraud. One day he received five or six different newspapers, all of the same date, relating to the same facts; he read them with the same incredulity, maintaining that they were all sham newspapers, printed for him alone by his persecutors, so determined were they not to desist, cost them what it might. Having furnished other particulars about this patient, Dr. Foville remarks—"The interest which appears to me to be connected with these observations is not a simple matter of curiosity. Captain Z., like the other two patients of which we have just spoken, and many other analogous cases, were all lunatics with delusions of persecution, of whom it is usual to speak of as labouring under a partial delirium, and who were called some years ago, or are still called, monomaniacs. But, without wishing to attribute to the word "monomania" the very limited meaning of delirium upon one single point, which very few psychologists would maintain in the present day, are not the facts observed by M. Drouet, and those which have now been related by myself, of a nature to shake very strongly even the less exclusive theory, according to which, through the mutual independance of the faculties, there would be but a partial lesion of the faculties in monomania, without a general alteration in their harmony? For our own part, that which has struck us most in this kind of test of experimental psychology, the elements of which were furnished by the great events which history shall ever keep in remembrance, was beholding the point at which the perversion of *appreciations*, lesion of the intelligence, and the abolition of judgment became profound and general in lunatics apparently rational in so many respects; and on seeing to what an unexpected extent delusions in appearance most limited become developed, I ask myself if ever, in a medico-legal case, one could affirm that an act committed by a monomaniac had no relation to the subject of his delirium."

*On Stupor in Mental Diseases and on the Mental Disease described under the name of Stupidité.*

In a very long paper Dr. Dagonet summarises the chief opinions and observations of various writers, and adds also those of his own. He believes that, though the affection about which he writes has already been the subject of numerous and important works, its history has appeared to present gaps, especially when viewed in its pathological manifestations, in regard to the circumstances in the midst of which it is developed. It appeared to him that the confusion which still

existed in this respect might to a certain extent explain the contradictory opinions which have been entertained on the subject.

According to Dr. Dagonet, all cases of *stupidité* may be arranged into two classes—those cases with delirium and those without it. It must not be imagined that the presence of delusive ideas, which are always imperfectly co-ordinated, and of abnormal sensations, or the absence, prevent the cases, when viewed in this manner, forming different stages of one and the same disease. We should not in all cases consider this affection a special form, a very marked variety of melancholia; and though we must allow that it is one of its most frequent consequences, we ought not the less to admit also that it may appear under conditions altogether different, that it may come on after other diseases, and that indeed it may occur in a primary form, and from the first present the characters which are peculiar to it. According to the confession, indeed, of some patients, it may exist without any sad thought or delusion engaging the mind. We are thus forced to consider and describe it as a special form of mental derangement, not to be confounded with others, whatever may be its origin, whether it appear spontaneously or as a transformation of other diseases.

Before passing on to the rapid examination of the principal phenomena which characterise the disease and the circumstances in which it may be developed, Dr. Dagonet makes some remarks on its nomenclature. He considers the word "*stupidité*" badly chosen, and not scientific. He suggests as improvements *stuporalgia*, or *stupemania*.

When cases of *stupidité* are examined psychologically, they may be divided into two classes. In the first class the suspension of intellectual life is, we may say, complete; the stupor is in its most intense form. There may be vague, incoherent ideas, and purely automatic acts, but these are not to be regarded as the expression of any kind of thought. In the second class the suspension exists up to a certain point, since the most elementary ideas, such as those of time, place, space, &c., are absent; but then it is accompanied by a sensorial delirium of the greatest intensity—a gloomy delirium, with more or less marked depression; the patients retain some recollection of their condition, and are conscious of the derangement which affected their mind, and of the obstacles which prevented them using their faculties. Doubtless these two conditions must correspond to different disorders, sometimes dynamical, of the nervous system; but in the actual state of our knowledge we should not hazard a conjecture in this matter.

The patient labouring under *stupidité*, whatever the cause which has led to the development of his disease, presents a characteristic physiognomy which may itself indicate several conditions of the mind. Sometimes the stupor is accompanied by an undefined dread dependent on the strange and painful sensations which the patient experiences. The features are then contracted, and the expression, marked by

sadness, discloses, nevertheless, by its animation, the persistent activity of thought. Sometimes, on the contrary, the features are relaxed, and the expression denotes inactivity, even the absence of thought, or at least the scarcity of ideas. The eyes are sometimes closed, at other times directed towards the same object, or timidly looking to the ground; they often indicate that kind of amazement which appears to cause in the patient the confusion of his ideas and sensations, the difficulty in thinking, and the diminution in the exercise of the psycho-cerebral functions. This double expression which the physiognomy presents, either of vague terror or of more or less complete inactivity, corresponds pretty closely to the two different psychological conditions. In one case, indeed, the delirious ideas, the morbid sensations, are developed to the utmost extent; in the other, on the contrary, we may say that hallucinations, terrors, fixed ideas, do not exist, or only in such an imperfect state that they do not leave on the mind of the patient any trace of their transient existence, and do not exercise upon him any characteristic influence.

We might go on extracting paragraph by paragraph, but such a method would scarcely convey an idea of the many interesting topics treated of in this paper by Dr. Dagonet. Besides, it is quite as unsatisfactory to attempt a regular abstract for two reasons; first, much of the matter in the paper being the condensed result of extensive reading and investigation, to reduce it further might make it almost unintelligible—second, the remainder of the essay is devoted to the consideration of minute details which cannot be condensed without frustrating the purpose for which they were written. Dr. Dagonet records many interesting cases in illustration of the topics treated by him in his paper.

*On the Influence of Alcoholic Beverages upon the Increase in the Number of Cases of Insanity and Suicide.*

In a memoir read by Dr. L. Lunier in 1869, he expressed the opinion that the increase in the number of cases of insanity proceeded almost exclusively, during a certain number of years, from the increase in the number of cases of general paralysis and of insanity caused by the abuse of alcoholic beverages. In the present paper he proceeds to show the results of his researches upon this greatest cause of the increase in the number of lunatics.

Having collected an immense variety of statistics, and having arranged them for minute investigation, Dr. Lunier draws the following conclusions therefrom:—

1. Spirituous liquors, and particularly those made with beet-root and grain spirits, tend, all over France, to be substituted for natural beverages, such as wine and cider.

2. In the departments where lately cider was the only beverage known, its consumption, and consequently its production, tend to decrease.

3. In these same departments, and generally in all those which produce little or no wine, the consumption of vins ordinaires, which began rapidly to spread in these districts, cannot in the present day withstand the competition of the alcohols of the north, the cheapness of which tends to generalise the consumption.

4. Spirits (alcohols d'industrie), which at first were only consumed in some departments of the north, have, during the last twenty years, gradually passed into use throughout the whole of France.

5. Taking the whole country into consideration, the consumption of alcohol has almost doubled between the years 1849 and 1869. It has now reached 2 lit. 54 per head.

6. In the same period, or more exactly from 1857 to 1868, the relative number of cases of insanity from alcoholism has increased 59 per cent in men, and 52 per cent. in women.

7. In the departments which produce neither wine nor cider, but produce alcohol, the annual consumption has increased in twenty years from 3 lit. 46 to 5 lit. 88 per head.

In these same departments the proportion of cases of insanity from alcoholism has increased from 9.72 to 22.31 per cent. in men, and from 2.77 to 4.14 in women.

8. In the departments which do not produce wine, but both cider and alcohol, the consumption of alcohol per head has increased in twenty years from 5 lit 50 to 8 lit. 50.

In these departments, the proportion of cases of insanity due to alcohol, already large in 1856, has doubled among the men, but has not sensibly increased among the women.

9. In those which produce neither wine nor spirit, but only cider, the consumption of alcohol, which was only 2 lit. 43 in 1847, is now 4 lit. 08.

It is in these departments that the proportion of cases of insanity due to alcoholism reaches the highest figure, particularly among the women.

It was already in 1855 16.44 per cent. among men, and 4.06 per cent. among women, and now it is 28.53 and 9.18 per cent.

10. In the departments which produce neither wine, cider, nor spirits, the consumption has increased from 1 lit. 49 to 2 lit. 69.

The proportion of cases of insanity due to alcoholism increased from 7.37 to 10.25.

11. In those which produce both wine and alcohol from wine, the consumption, which was 0 lit. 53 in 1849, is now only 1 lit per head.

The relative number of cases of insanity due to alcoholism has only increased from 7.63 to 11.40; the mental diseases following excesses in drink are there relatively rare among women.

12. In those which produce wine and spirits (d'industrie), the consumption of alcohol, already large in 1849, has almost doubled in twenty years.

The relative number of cases of insanity due to alcoholism, has



doubled among the men and had increased among the women in the proportion of 5 to 7 (2.55 to 3.43).

13. In the departments which produce wine, but do not manufacture alcohol, the annual consumption of alcohol has increased in twenty years from 1 lit. 75 to 3 lit. 92 per head in those which consume cider, and from 0 lit. 69 to 1 lit. 30 in the others.

In the former the cases of insanity due to alcoholism have increased among men in the proportion of 20 to 25, and in the latter from 6.90 to 16 per cent. Among women the increase in the two groups has only been from 2 to 2.60 per cent.

14. The consumption of alcohol and the relative number of cases of insanity due to alcoholism have then more particularly increased, other things being equal, in the departments which produce and consume cider.

15. In some departments, where relatively they drink much white wine and little spirits, as in Vendée, the cases of alcoholic insanity appear as common as in those in which alcohol is chiefly used; but in the former, contrary to what occurs in the others, the cases of alcoholic insanity are relatively very rare in women.

16. Alcoholic excesses act not only by causing attacks of delirium tremens or of insanity, but also by placing the parents, at the moment of conception, in very peculiar conditions, which have an evil influence upon the physical health of the children, and upon their intellectual and moral development.

17. The increase in the number of suicides has followed, everywhere in France, the enlarged consumption of alcoholic beverages.

18. The influence of the excesses in drinking, and specially of spirits, upon the production of mental diseases and of suicide, is not a fact peculiar to France; it has been observed in all countries, and particularly in those which consume most alcohol, such as the United States, England, Ireland, Sweden, Denmark, Russia, Germany, Holland, and Belgium.

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## 2. *German Retrospect.*

*On the Significance of Fat Granules and Fat Granule-cells in the Spinal Cord and Brain.* By Prof. LUDWIG MEYER. With illustrations.

The granule-cells which Dr. Westphal found in the posterior and lateral columns of the cord in progressive general paralysis led that observer to the conclusion at once that in it consisted a universal lesion of the cord in the paralytic insane, as he had before proved of the grey degeneration of the posterior columns. Prof. Meyer, however, has not succeeded in detecting any connection between the discovery of granule-cells and a lesion of the cord to which these in-

flammation products (Entzündungskugeln) owed their origin; and so these formations prove a chronic myelitis merely, and do not lead to the conclusion that "hereby the universal product of spinal diseases among the paralytic insane is indubitably settled."

Fat granules and granule-cells spring up in all tissues under such manifold conditions that their appearance in any organ does not afford the slightest ground for a pathological estimate of the process by which they arose. The fatty degeneration of the tissue-elements of an organ is one of the normal, or, at least, common events, and granule-cells are just as likely to be the residuum of the usual *débris* of nutrition of the organism as that of a definite local inflammation. The proof given by Th. Simon of granule-cells in the cord of those who have died from protracted and deep-seated lesion of nutrition of a tuberculous nature, lends weight to this opinion. Since attention was called to this point by Westphal's observations, the spinal cord of every patient in the Göttingen Asylum who died from paralytic disease of the brain has been examined in section, and it can be positively stated that these granule-cells could be shewn in most of the cases, if not in all. But these constant and numerous products could in no way be connected with the clinical symptoms, as Westphal had pointed to them. On the other hand, corresponding with an observation of Simon's, granule-cells were found in still greater extent in the cord and brain of a person who had died from tuberculosis and not from paralytic brain affection. As on the one hand the especial connection between this discovery and progressive general paralysis became doubtful, so on the other hand one could not help suspecting that in these instances one had to do with changes of a more universal pathological significance. The origin of granule-cells from a fatty change in the nerve bundles of the cord Prof. Meyer from the first put aside altogether. The arrangement of the fat granules corresponds, as indeed can be observed in many cases of atrophy of the posterior and lateral columns, in these cases exactly with the course of the nerve-fibres, generally shewing the easily recognised string-of-pearls form. The connective tissue and vessels of the cord must then be regarded as the basis of origin for the granule-cells in the cord of the paralytic insane, the tuberculous, and the other cases investigated by Simon. Westphal takes exception to the statement that in chronic myelitis there is always a fat metamorphosis in the connective tissue, with or without increase of nuclei, and that the increase of the cell-elements is chiefly to be attributed to this accumulation of fat. Previous investigations on the development of fat granule-cells in softening of the brain substance had inclined me to the view that appearances of fatty degeneration of the cell-elements sprang from the vessels, and this view was corroborated by the observation of analogous precedents in the brains of paralytic insane. Very soon was he convinced how constantly fat granules and granule-cells appear in the brain at the same time as in the cord. In the cortical brain-substance of a melan-

cholic patient who died in this asylum from phthisis, large granule-cells were found all over. In this locality, as in the grey substance of the central ganglia, it was easily proved that the granule-cells adhered to the vessels. A similar result was afforded by the following observations:—

The task was, however, much more difficult for the white substance of the brain, and still more of the cord. In hardened and well-injected preparations the histological results were rather doubtful; only in quite fresh sections, or in those treated after the manner of Deiter, in very weak solutions of chromic acid, is it possible to isolate the vessels sufficiently gently. But anyone who has had to do with the bundles of nerve-fibres will know how to appreciate the difficulty of this task. A preparation that has been cautiously just spread out, strings itself together again at once; the nerve-fibrils form true knots and bands, and masses of myelin prevent all observation.

It may then be not deemed superfluous if an account of the details of the undertaking is given. No one will confess more willingly than the Professor himself that the desirable degree of certainty has not been acquired, and the reader must be permitted to judge for himself of the value to be attached to the results. It has been already stated that sections of parts of the cord hardened in chromic acid or spirit lead to no reliable results on the connection between the granule-cells and the tissue-elements of the normal cord.

This holds especially of transverse sections, for when containing only a small quantity of fat the granules and parts of granule-cells yield much sooner to the knife, however carefully used, than the parts around them do. Granules and granule-cells, the latter often crushed or split into two or more parts, are torn by the knife from their original place, and spread over tissue-elements with which they never had the slightest connection. Still in one case in which the cord-vessels were very full of blood, sections were made in which groups of granules appeared limited to the circumference of the vessels. Granules and granule-cells surrounded, in the form of rings and sheaths, the transverse and longitudinal sections of the vessels. In the neighbourhood of the very large accumulations of fat in which the vessels were often fully imbedded were single fat granules noticed, giving the impression that they had been loosened and scattered from their original place mechanically. After many attempts Dr. Meyer limited himself to longitudinal sections of the cord in the freshest state possible (4-6 hours after death), which can be preserved for two or three days according to Deiter's method, the preparations being cut off in the thinnest possible manner by fine scissors. In careful sections made in the direction of the course of the nerve-bundles one sees easily, as soon as the degeneration is somewhat developed, a yellowish or reddish grey indefinite delineator of straight or winding stripes and lines. The centre of this part shows a more or less branching vessel, as can be seen with low powers. When using higher powers the preparations

should be gently teased out, and when the vessels and the parts in their immediate neighbourhood are not so entirely isolated as to show them in their whole extent, there generally appear granules and granule-cells separated from the vessels scattered among the nerve-fibres, yet a comparison of numerous specimens leads to the conclusion that the vessels are the particular point of origin of the formations, and that, by the manner of preparing, some granules have become loosed here and there, and have managed to get between the nerve fibrils. At times, notwithstanding every care, not a single fat granule could be found between the nerve elements, though accumulations of them appeared in the vessels. Cavities were often noticed which exactly corresponded with the isolated granule-cells, like bricks which had tumbled out from a wall. A few granules appeared to adhere so firmly to the wall of the vessel that they could be sooner rent asunder than set loose, and then one half would fall among the nerve-fibres, whilst the other half corresponding to it remained firm in its place of origin. To show how little the form of the part was changed by the teasing, the lines of separation corresponded in all the bends and angles, so that in bringing them together the form of the entire granule-cell was reproduced. The fatty degeneration of the wall of the vessel (for so we must designate these changes) generally appears in the "transition-vessels" (*Übergangsgefässen*), or those which are close to the capillaries, and by preference in the venous transition vessels, and in the smallest veins. The formation of the granules begins in the immediate neighbourhood, mostly at both poles, of the oblong nuclei placed parallel with the long diameter of the vessel. By gradual and slow development does the further increase of the fat-granules proceed in the above-named direction, and one then sees them surrounding a whole vessel in the form of a string of pearls and pointed streaks. Occasionally the same thing goes on simultaneously in more rows lying close to one another, which finally cover the whole vessel with a coat of granules. In another place separate collections of cells are more severely attacked, the granules occupy the whole circumference of the nucleus, quickly cover it, and make it almost invisible. As the accumulation proceeds the spindle-shaped cells change their form, increase in width, and become oval or round; of such a size too, that a single cell may exceed the original width of the vessel. If they develop in a scattered manner, the heaps of granules often form knotty risings in the walls of the vessel. If this development of granules proceeds in most or all of the cells of the sheath of the vessel there results a thick, dark, solid-looking cylinder, within which the much smaller channel of the vessel can only be recognized from its containing red blood-corpuscles. That in a similar manner the new-formed cells of the vessels in the brain convolutions of the paralytic insane are often turned into granule-cells may be here mentioned. The change appears to attack only separate parts of cells, or, at least, to proceed very gradually. Also in Myelitis, according to Manukopff's description,

are found in the vessels of the spinal cord fat-degenerations of various degrees close by the aggregations of nuclei. In one notable case, transverse sections in the lumbar region displayed yellowish-white spots, which, for the most part, consisted of enormous fatty, tree-like vessels.

Together with the fatty degeneration, there are seldom wanting other changes of the wall of the vessel, which must be regarded as consequences of the former. There is no doubt that, sooner or later, the fat granules are again re-absorbed. In favourable cases a preparation will show the transition from large dark cells filled with granules to the indistinctly-limited drops of fat. A moderate granule formation may without any certain re-action on the structure of the vessel-wall be re-absorbed, but larger accumulations of fat-granules, above all the formation of larger-sized granule cells, appear to cause permanent changes of tissue. It appears as if the cells and fibres of the vessel-wall were by the infiltration of fat-granules displaced and separated. The boundaries of the vessel-wall within and without are less parallel, and the whole vessel seems less supple. Together with the fat-granules there appear other corpuscles, less smooth and more angular, which reflect the light more strongly. They do not disappear when treated with ether, though by the mineral acids, with the development of gas bubbles. These deposits of lime salts in the walls of the vessels often attain colossal dimensions, as is well seen in the vessels of the brain. The vessels in such cases, with these concentric encrustations of lime, stand out like bristles, and can be easily isolated. The closure and complete obliteration of the smaller vessels is the consequence of these changes. Together with these are other changes to be noted as consequences of the preceding degenerations. Whether the amyloid corpuscles, which in sclerosis of the vessels of the nerve centres cover the walls of the vessels, belong to this category may be doubted, though concerning the place of their development they are always in relation with the fat granules and granule-cells in the brain and cord. Fatty degeneration and sclerosis of the smallest vessels so constantly accompanied the degenerative processes of tissues, that it must be regarded as the characteristic symptom in retrograde metamorphosis of tissues. It is found in all old inflammations, in granulation of wounds, boils, false membranes, purulent collections in the pia mater, in cancers, &c.

The question arises whether, as lesions of innervation can cause secondary lesions of nutrition, so more protracted and more severe lesions of nutrition do not in their turn influence the nervous system, enfeeble it, and bring on fatty degeneration in the vessels of the nerve centres as an expression of this defective innervation of the whole organism. But if this influence be ascribed to all lesions of nutrition, it might be expected that the locality of the nearest and most suffering organs, such as the lungs, kidneys, bladder, would in inflammatory affections of these organs exert an influence on their centres of nerve

supply. Discussion on this question, so far as it concerns the function of the organ, is avoided, as is also the investigation of the sympathetic system.

Then follows a series of observations. The first series includes an examination of the cord and brain of 18 patients who suffered from the most various affections in the Hamburg Hospital. The greater number of these preparations were intentionally taken from those who died in advanced age, in order to obtain well-grounded observations on the influence of old age on the fatty degeneration of the vessels of the nerve centres. The second series consisted of those affected with insanity, but not with progressive general paralysis. Subjoined is a case taken from each series:—

First Series.—A woman, 47 years old, who suffered a long time from tuberculosis in the organs of the chest and abdomen. Fatty degeneration of numerous small vessels in every part of the cord, in the posterior, lateral and anterior columns, and in the gray substance. Great development of fat-granules and granule-cells in the posterior columns of the cervical region, the vessels of which show roughnesses and inequalities, consisting of fat-granules. In the convolutions of the brain, in the capillaries, and the smallest vessels, accumulations of granules around the nuclei, which are seldom visible.

Second Series.—Albert G., drunkard. When 35 years old had *delirium tremens*. At 36, chronic alcoholism, incoherence, ideas of grandeur, hæmoptysis, purulent expectoration, and feverish symptoms. At 41 he died. Cavities in the right lung; tuberculosis of liver, spleen, kidneys, and capsules; pachymeningitis; atrophy of brain; moderate sclerosis of the smallest vessels of the lateral and posterior columns; fatty degeneration in the posterior columns of the dorsal portion.

T. C. S.

*A Case of Forensic Psychology.* By Professor LUDWIG MEYER, of Göttingen.

*Lascivious behaviour towards a child five years old—Partial craziness or incoherence—Congenital idiocy—Predilection for the disgusting.*

A journeyman shoemaker, named August Thute, of Lindau, was accused by the Crown Prosecutor at Göttingen of indecent behaviour towards the daughter, aged five years, of the farmer W. The accused, who lived with his mother in the house of W., on the afternoon of March 15, 1869, enticed the child into a garret, under the pretence of helping him to find his pipe. Soon afterwards the mother heard the child cry out loudly, and found her sitting on a bed that was standing there. She complained that Thute, who professed to be occupied with a grain-chest placed at a small distance from the bed, had “done something to her and had pinched her.” Afterwards she confessed to her father that the prisoner had lain upon her. From the girl’s genitals a tolerably abundant stream of blood flowed down, and wetted the shirt and stockings.

A surgical examination showed that the bleeding proceeded from a rent  $\frac{3}{4}$  inch long on the under part of the entrance to the vagina. Whilst the mother was leading the child away Thute escaped from the house, and did not return for two days. He appeared excited, talked much; on the afternoon of the 18th assaulted his mother with a stool without any provocation, and if the neighbours had not intervened would probably have killed her. He left, threatening to set fire to Lindau, and to slit up with a knife the bowels of everyone who approached him. He was found by a gendarme, after a long search, in a neighbouring barn under the straw. It was generally suspected that his intellect had suffered. According to Madame W., in whose house he lived, "he is not in possession of his five senses, and everyone in Lindau knows it. She holds him to be a dangerous man, who might cause a deal of mischief, although in ordinary conversation with him it would not be remarked that he was crazy. One 14 days he will be always eating, and the other 14 days he will touch nothing. He eats snails and worms when he can get them." The husband of this woman says that the prisoner often makes most astounding assertions, *e.g.*, that the Hartz mountains must be taken away, and that it could be done in 14 days. Another time he said, "You think, indeed, that the Saviour is dead, but he is still alive, and is wandering elsewhere in the world where he cannot be again found." In the baptismal register of the priest at Lindau is found the remark that "Thute was undoubtedly of weak intellect." His master, Hennigés, said that during the time of his apprenticeship he behaved well, but that after his return from travelling he had shown signs of insanity. In consequence of these assertions, the Court of Göttingen directed that Thute should be put under observation in the Göttingen Asylum. The result of this six weeks' observation was as follows:—August Thute is 34 years old, of thick and short, moderately nourished body. The deepened pit of the stomach, the raised left shoulder, and the corresponding curvature of the spinal column (left-sided skoliosis) are doubtless results of his employment, which forced him during his years of growth to sit daily for hours in a constrained position, and with his right shoulder depressed. This malformation deserves especial mention, because apparently to this and to no other pathological antecedent was attributable the slight but well-marked malformation of his skull. The head is crooked (skoliosis) in this fashion, that behind the left half exceeds the right both in breadth and length, whilst at the temples the opposite relation occurs. The head is narrow, long, rising like a roof over the sagittal suture. The forehead recedes greatly, and the frontal sinuses are very prominent. Prognathous countenance and very low animal expression. The skull, moreover, is not small, and the measurements indicate a fair volume of brain. Expression of the face is stubborn and stupid, scarcely altered even when excited, and that, too, only by the rise of a little colour to his otherwise dusky pale cheeks. Both pupils re-act somewhat slowly

on changes of light. Very noticeable is a fibrillar twitching of the eye-lids, especially and chiefly when the eyes are closed, and which, if this condition be preserved for a little time, spreads itself over cheeks and forehead. The extended and out-spread fingers are always on the tremble, as in a tipsy person or one suffering from chronic alcoholism. No abnormal shaking of the body when the eyes are shut. Feeling of pain very much blunted; thus, if a needle be stuck deeply into the hands, feet, or even face, nothing seems to be noticed of it, or if the two poles of an induction apparatus are placed as close together as possible on the arm, leg, or neck, no complaint would be made of it, although a healthy person would have found the pain unbearable.

The behaviour of the prisoner was in prison, as well as under his new surroundings in the asylum, constantly torpid and indifferent. He was noticed to stand, by hours at a time, in the corridor, always in the same place, upright, with an utterly unmoved expression of face, unmindful of what was passing around him, until called by the attendant to his meals. He was obedient to those in charge, but required keeping to any assistance he might be giving.

Although he had not followed his employment for some time he never hesitated an instant to work at the boot repairing in the shoemaker's shop. When questioned about his stay in the asylum he showed complete want of observation and judgment, and thought he was perhaps in a workhouse or hospital. When his attention was called to the peculiarities of some of the lunatics, he thought they were joking, or perhaps were "not quite right in the head." As for himself he liked the place better than the prison or even than Lindau, as the food and the sleeping accommodation were good. Just as little was he able to form an opinion of his own presence in the asylum. He showed no astonishment at the assertions of the lunatics who addressed him, and believed all their statements about endless riches, impending dangers, ill-treatment, and so on. He could not recollect his own age, nor the date, nor the month. He had only a vague impression of the important events of the past year concerning the war. When asked in prison to whom the country belonged, whether to the King of Hanover or to the King of Prussia, he answered, after a deal of consideration that Hanover was now Prussian; but he could not give the time when the change took place. When questioned again in the asylum on this point he replied with a self-satisfied air that "he had conferred with the prisoners and warders on the subject, and that the Prussian possession occurred in 1866, though he was not quite sure that it was not in 1867. At that time came the battle of Langensalza, and an insurrection against the Hanoverian and Prussian governments had broken out. The King of Hanover lost the land because he was blind, and had given bad counsel; for it said in the Bible that a blind king was destruction to the land." Thute's intelligence was just as little able to control the events of his own life. When asked why he



no longer carried on his own trade, but had for six years eat the bread of idleness in the house of his half-brother, he gave only a few insufficient reasons.

Thute always, in relating things, departs from the point. Only at the beginning of his answer is the slightest, even though it be superficial, relation to the proposed question; very soon these slight threads are lost in a mass of statements, only connected together in the most remote way; so that it is difficult to obtain a satisfactory history of his life.

In spite of all his ramblings there is, however, a distinct circle of ideas in which Thute continually revolves, viz., the strangest bodily afflictions, caused by special and secret influences. "At most times it was like a pressure or a constriction under the breast. Sometimes it resembled a breath blown through the body, which entered his heart and limbs. His blood was thick and would not move, his lungs glued fast, and the strength taken from his arms and legs. Moreover, the head was affected, for it was as if a noisome current of air in the form of a snake crept through the neck into the head. His neck often felt fixed, and then his head became weak and giddy. Often his whole body felt as rotten as if it would come to pieces. These and many other troubles occurred chiefly in consequence of evil vapours and winds, which he had traced in Lindau and during his apprenticeship. In Hamburg, in 1856, he was infected by injurious smells from an overflow pipe. He had palpitation of the heart, giddiness, and so much trouble that he sought relief for it all at the hospital; when there he had cold water poured on his head." The short records which were at that time made of his illness show that even then Thute behaved in a strange manner, for there were no appearances of disease to be noted, and he was thought to be shamming, though no motive for such could be discovered.

In 1866 Thute lost his situation, and was unable to obtain employment in the neighbouring towns. He then worked in an india-rubber manufactory at Haarburg. At this place was repeated the feeling of sulphurous or other vapours creeping into him, and making his blood thick, and his head weak.

In Göttingen again, one day at dinner time it appeared as if a snake had suddenly turned round in his body. He lay in the greatest anguish in the street, when there encountered him, from an angular chimney, a wind, which made him feel in his hands and feet as if he was crucified. Sharp-cornered things appeared to him to be very dangerous, especially when they moved quickly, and he proposed that the corners and edges of the railway carriages should be rounded.

His proneness to swallow strange and disgusting things is intimately connected with these diseased sensations. It occurs only at times, in an impulsive manner, and is always associated with a feeling of distress and disquietude. He then drinks his urine, swallows live frogs, worms, and such like (without using his teeth). If he finds a

dead animal—a dog or a cat—he tears it open, and eats some of the lung, “because it makes him strong.” In the asylum he eat coal, earth, &c.; once he succeeded in getting to the night-stool, from which he fished up and eat a piece of carbolate of lime that had been used for disinfection. The form of disease in this case may be described as dementia with hypochondriacal fancies, or partial incoherence, for it is just this circle of illusory ideas that least of all gives the impression of intellectual activity, whilst again, in all other directions, the mental functions are weakened or absent.

A whole row of similar cases might be adduced (some may be found in the Göttingen Asylum) which have come in collision with the law through these shameless insults of a sexual kind. In a few, the best of those in this category, whose peculiarities were carefully looked after during their youth, it was made clear that a congenital defect or at least an early affection was the cause. In their early years is noticed a limited capability of intellect and moroseness, at times interrupted by motiveless emotional bursts. They are avoided and made fools of by their schoolfellows. When with puberty the passions are awakened, and life forces upon them its claims to some occupation or other, then their defective intellect becomes recognised in forms of laziness, disobedience, &c., in addition to numerous pathological sensations which arise to the consciousness of the patient, such as various hypochondriacal feelings, ideas of demoniacal possession, electric, magnetic, and acoustic influences, &c. So far as we have seen, inclinations to obscenities are common, and the ends of cigars, tobacco ashes, blood, urine, and fæces are devoured, and amongst them are many defilers of corpses and committers of rape on children, who belong to this class of idiots.

In the case of Thute pure sexual impulse was scarcely the cause of his crime, for it does not appear to have been ever present. According to his own account of what had happened, he felt very weak and oppressed, and thought it would do him good if he “placed his hand on the child’s genitals to see how they were made.” It does not appear that Thute in the few moments that intervened between the cry of the child and the approach of the mother had connection with the former, as no traces of such appeared. It is more probable that the injury spoken of was caused by the finger-nail, in order that from the blood thus made to flow he might be cured.

T. C. S.

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## PART IV.—NOTES AND NEWS.

*The Medico-Psychological Association. Proceedings at the Annual Meeting of the Association, held, by permission of the President and Fellows, in the Rooms of the Royal Society, at Edinburgh, on Wednesday, July 31st, 1872.*

The Council met in the Committee Room of the Royal Society at 11 a.m. Dr. Maudsley, the President, in the Chair.

The Morning Meeting was held in the Library of the Royal Society at 12 o'clock, the Afternoon Meeting at 3 p.m.

Members and Visitors present:—Sir James Coxe, M.D., President, in the Chair; Sir John Don Wauchope, Bart., Lockhart Robertson, M.D., Arthur Mitchell, M.D., William Forbes, Esq., Dr. Paterson, Dr. Sibbald, Professor Laycock, Professor Gairdner, Dr. Skae, Dr. Lalor, Dr. Wood, Dr. Maudsley, Dr. Paul, Dr. Rorie, Dr. Tuke, Dr. Stewart, Dr. Batty Tuke, Dr. Smith, Dr. Peddie, Dr. Lowe, Dr. Palmer, Dr. Fox, Dr. Duncan, Dr. Christie, Dr. Crichton Browne, Dr. Clouston, Dr. Wright, Dr. Haigh, Dr. Brodie, Dr. Murray Lindsay, Dr. Rogers, Dr. Arlidge, Dr. Sabben, Mr. Fernandez, Dr. Stanley Haynes, Dr. Yellowlees, Dr. Ireland, Dr. W. Wood, Dr. Lees, Mr. Mould, Dr. O. Stewart, Dr. A. Robertson, Dr. Dean Fairless, Dr. F. Skae, Dr. C. Skae, Dr. Aitken, Dr. Grierson, Mr. T. Tuke, Dr. Rutherford, Mr. Ley, Dr. Deas, Mr. Wickham, &c.

Dr. MAUDSLEY said—The duty I have to discharge to-day is only a very brief one. I have to resign into your hands the position which, by your favour, I have occupied for the last year. In doing so, I am glad to be able to congratulate the members on the flourishing condition of the Association. The numbers are steadily increasing, the balance-sheet shows a considerable surplus, and I think our influence as a scientific body is gradually being extended. I am sure you will join with me in the hope and in the belief that this prosperity will continue, especially under the presidency of the distinguished physician who is to succeed me in this chair, who unites with his high official position so deep an interest in all that concerns the welfare of the insane.

Sir JAMES COXE, M.D., Commissioner of Lunacy, then took the position of President, and in doing so, said—In taking the position of Chairman, I beg to express my thanks for the great honour you have done me in appointing me President of this Association. I feel you place me in a position for which I am ill qualified; but I will do the best I can to merit the honour.

The minutes of the last General Meeting, as published in the "Journal," were taken as read, and adopted.

The PRESIDENT then delivered his address. (*See Part I., Original Articles.*)

Dr. MAUDSLEY—I beg to propose a vote of thanks for the admirable address which we have just heard. It is not usual to discuss the President's address, and I, therefore, only move a vote of thanks.

Dr. WOOD—I beg to second the resolution. I scarcely remember to have heard an address so thoughtful—so suggestive of everything we ought to weigh and consider. Though, perhaps, there have been some views enunciated which would scarcely be in consonance with the opinions of all present, there is so much in the address that is original, thoughtful, and important for us to consider, that I am sure we shall be unanimous in giving our thanks to the President for his address.

The motion was passed with acclamation.

The HON. SECRETARY (Dr. TUKE)—I have to read a letter from Dr. John Sibbald,

resigning his office as one of the editors of the "Journal." I am sure the Society will much regret losing his services. His letter is as follows:—

"16, Dalrymple Crescent, Grange,  
"Edinburgh, 22nd June, 1872.

"MY DEAR DR. TUKE,

"I regret that I feel obliged to resign my position as one of the Editors of the 'Journal of Mental Science.' My other duties have from the first prevented me from rendering such aid as I should have wished towards lightening Dr. Maudsley's labours.

"In placing my resignation in your hands, I wish to express my thanks to the Association for the high honour it conferred upon me—an honour great in itself, but rendered greater by associating me with my distinguished colleague.

"I am,  
"Yours very truly,  
"JOHN SIBBALD.

"Dr. Harrington Tuke, Secretary, Medico-Psychological Association."

I have also to announce the resignation of a most valuable office-bearer of the Association, Dr. Batty Tuke, who retires from the office of Honorary Secretary for Scotland. I can only say that during the time Dr. Batty Tuke has been my colleague he has been of the greatest possible service to our Association. I think the number of Associates is now greater than it has ever been during the time Dr. Batty Tuke and myself have been working together, and I am sure all will feel his resignation (hear, hear). I also take this opportunity of placing my own resignation in the hands of the Association. The intercourse with my colleagues and the associates has been a source of the highest pleasure to me during the long period I have acted as Secretary; and if, in the course of that time, I have, by any act of omission or commission, offended any member, I beg now to express my sincere regret. I believe I have in this room many warm friends, and I hope that, though severing myself from the office, I may with my illustrious predecessor, Dr. Lockhart Robertson, still continue, as I am happy to see him doing, my usefulness to the Association.

The PRESIDENT—I am sure the members of the Association must greatly regret the resignation of these gentlemen—Dr. Sibbald, who has been a very efficient officer, and of both the Drs. Tuke, who have been most valuable in their different capacities (hear, hear).

On the motion of Dr. Christie, seconded by Mr. Mould, it was unanimously agreed that the next Annual Meeting of the Association should be held in London.

Dr. MAUDSLEY proposed that Dr. Harrington Tuke should be elected President of the Association for next year.

Dr. CLOUSTON seconded this motion, remarking that Dr. Tuke had served them for a good many years, and that they had every reason to believe he would do honour to the post to which he was now nominated.

The election having been unanimously made,

Dr. TUKE said—Before proceeding to the next business, Mr. President, will you allow me to express to yourself and the meeting my high sense of the honour conferred upon me. Following so distinguished a man as yourself, and following names that are so well known to the society, is a great honour to me; and I can only hope that in my hands the dignity of the presidentship of the society will not suffer. I cannot hope, when I see you in London, to emulate the splendid hospitality of Sir James Coxe, but this you may be sure of, that the welcome will be as sincere; and I trust we shall continue year by year to meet and promote those objects and that friendly feeling which our meetings are so well calculated to foster.

Dr. CLOUSTON—For the office of Secretary, I beg to propose my friend Dr. Christie. Dr. Christie is well known to us for his great energy and business habits, and the uniform courtesy with which he treats all that come in contact with him. These are requisites that we require; and I think Dr. Christie possesses these to such an eminent degree that he could not fail to make an excellent secretary of the association. Dr. Christie lives in the immediate vicinity of London; and I am sure if he is elected he will make an excellent officer.

Dr. MURRAY LINDSAY seconded this nomination, and expressed his concurrence with what had been said by the previous speaker.

Professor LAYCOCK—I wish to give my evidence on behalf of my friend Dr. Christie. I had some experience of him and his great energy when the meeting was held at

York under my presidentship. I think nothing could exceed the urbanity, energy, and success with which Dr. Christie conducted the proceedings there, and I am quite sure the Association will secure an efficient officer in Dr. Christie.

The PRESIDENT—It seems to be the general opinion of the meeting that Dr. Christie should be elected (applause).

The election was then declared unanimously.

Dr. CHRISTIE—I feel deeply the honour conferred upon me, and I can only say that if it is the wish of the members, I have no objection to take it. I can assure the Association of this—that I shall do the utmost I can to carry on the Association as it should be carried on, and, in following Dr. Tuke, no energy shall be wanting on my part.

Dr. BATTY TUKE moved that Dr. Stewart, who had so long and ably acted as Hon. Secretary for Ireland, should be re-elected.

This was duly seconded, and unanimously carried.

Dr. LALOR remarked, on behalf of himself and the other Irish members, that nothing could be more satisfactory to them than the re-appointment of Dr. Stewart.

Mr. MOULD—With regard to the Hon. Secretary for Scotland, I beg to move that Dr. Batty Tuke's resignation be not accepted (applause). He is a very useful official, and though obstinate, often does what is right; and I think he will do right in continuing in the office to which he adds so much lustre.

Dr. BATTY TUKE—I beg to move the previous question (laughter).

The PRESIDENT (to Mr. Mould)—There is only the appointment of a new Secretary before the Association.

Mr. MOULD—I was not aware I was out of order; but I now propose that Dr. Batty Tuke be re-elected as Hon. Secretary for Scotland.

Dr. SIBBALD—I second the resolution. We all, he said, know Dr. Batty Tuke well, and would be sorry to lose his services.

Dr. BATTY TUKE—I am much obliged by the feeling that has been expressed, but I have made up my mind definitely. Mr. Mould has said I am an obstinate man, and on this I have made up my mind. My resignation is for the good of the Association. After a man has worked four or five years he gets a little stale, and the sooner you get a new hand the better. I move that Dr. Frederick Skae be elected Hon. Secretary for Scotland. His propinquity to Edinburgh, his name, and his qualities, will enable him to perform the duties of the office more ably than I have done.

The appointment of Dr. Skae having been declared unanimously,

Dr. SKAE said—I have much pleasure in accepting the appointment, which I think a great honour indeed. I would have much preferred if Dr. Tuke had not given it up, or if I had succeeded any other person. He has been so highly energetic, and has attained such popularity, that it is somewhat difficult to succeed him.

Dr. SKAE—I beg to propose that Dr. Maudsley be appointed to edit the "Journal." This motion does not require anything in its support on my part.

Dr. WOOD—I second the proposition. I think there is but one part of the duties of the editor that has not been taken advantage of. I mean the giving of a sum of money that he may spend it as he thinks best.

Dr. MAUDSLEY—I thank the Association for the honour they have done me in re-appointing me editor of the "Journal," a position which I have now so long filled, and in doing this I have to ask you to associate with me Dr. Clouston, now that I have lost the services of Dr. Sibbald. I have received great services from Dr. Clouston, by valuable articles for the "Journal." I wish to continue this assistance, and therefore ask you to associate him with me.

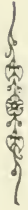
The resolution was seconded and duly carried.

Dr. CLOUSTON—I have to thank the Association for this honour, and I only hope I shall do my best at all events to retain your confidence while I hold this position. It ought to stimulate any man to be associated with our president for last year, Dr. Maudsley, and I think that if anything will stimulate me to do my duty it will be my association with him.

The PRESIDENT—I have no doubt the "Journal" will be carried on with, if possible, increased vigour, and become more and more efficient as the "Journal of the Association."

Dr. PAUL was then unanimously re-elected Treasurer. He thanked the members for this mark of their confidence, and read the following highly satisfactory balance-sheet:—

# THE MEDICO-PSYCHOLOGICAL ASSOCIATION.



## The Treasurer's Annual Balance Sheet, July, 1872.

| RECEIPTS.                                   | £   | s. | d. | EXPENDITURE.   | £    | s.  | d.  |
|---|-----|----|----|--|------|-----|-----|
| To Balance Cash in Hand ... ..              | 83  | 0  | 4  | By Annual Meeting ... ..                                 | ...  | ... | ... |
| To Subscriptions received ... ..            | 193 | 19 | 0  | By Editorial Expenses ... ..                             | ...  | ... | ... |
| By Secretary for Ireland ... ..             | 29  | 8  | 0  | Printing, publishing, engraving, and advertising Journal | 221  | 12  | 11  |
| By Secretary for Scotland ... ..            | 42  | 0  | 0  | Sundries—Advertisements ... ..                           | 5    | 5   | 0   |
| By Sale of Journal, Messrs. Churchill... .. | 78  | 16 | 0  | By Printing Circulars, &c. ... ..                        | 4    | 19  | 6   |
|   |     |    |    | By Treasurer ... ..                                      | 5    | 5   | 0   |
|   |     |    |    | By Secretary for Ireland ... ..                          | 0    | 13  | 7   |
|   |     |    |    | By Secretary for Scotland ... ..                         | 10   | 12  | 0   |
|   |     |    |    | By General Secretary ... ..                              | 7    | 7   | 0   |
|   |     |    |    | By Balance in Treasurer's hands ... ..                   | 138  | 8   | 2   |
|   |     |    |    |  | £427 | 3   | 4   |
|   |     |    |    |  | £427 | 3   | 4   |

Audited and found correct,

J. MURRAY LINDSAY. }  
 J. T. ARLIDGE. }  
 AUDITORS.

Dr. WOOD remarked that this was a very gratifying report, and that he did not know a way in which the Association could spend better the money than in enabling those gentlemen who work so hard for its interests to carry out their plans; and, if it were the wish of the meeting, he would, he said, move that the expenses of the secretaries be paid out of the subscriptions.

Dr. LALOR wished to know why the expenses of the Secretary for Ireland did not come up to the amount incurred by the Secretary for Scotland, and whether the difference operated to the detriment of the former efficient and excellent official? If so, he did not see why the practice should not be assimilated. He had no doubt the Secretary for Scotland acted within the rules of the Association, and he would be glad if that gentleman had more at his disposal than at present. He learned with surprise that it was possible for the Secretaries to receive less than they were out of pocket. Dr. Wood's motion pointed to such an abnormal state of matters. He concluded by asking whether, if a branch association were established for Ireland, the expenses would be paid from the general fund.

Dr. BATTY TUKE said the question as to the expenses connected with the secretaryship for Scotland was easily explained. A quarterly meeting was held and a shorthand writer had to be paid, and other expenses arose, which it was perfectly impossible to avoid.

The PRESIDENT remarked that it seemed a hard thing that the secretaries should be out of pocket. They gave their time and labour, and ought not to lose money also.

Dr. TUKE said that it was not necessary to make any specific rule on the subject, as the present rule was very clear. After payment of the necessary expenses the surplus was devoted to the "Journal," and so it was only a question whether the expenses for Scotland and for Ireland did not come fairly within the expenses of the Association.

Dr. PAUL said the Association got more money from Scotland now, by £40, than it did eight or nine years ago. If their Irish friends acted in the same way as had been done in Scotland, their expenses would be heavier, but the funds would be in a better state than at present.

Dr. SIBBALD asked whether any arrangement had been made as to the *verbatim* reports of the meetings of the Association? It was not common with associations like theirs to have *verbatim* reports of their meetings, and he thought a more general abstract might be sufficient for the purposes of the Association.

Professor LAYCOCK said he had presided at a quarterly meeting at which it was agreed to have their meetings reported. There was a good deal of conversation on the subject, and he thought Dr. Batty Tuke would bear him out in saying that they came to the conclusion that it would be a very great advantage to the objects of the Association that the general Press should be admitted to their meetings, so as to excite interest in the Association beyond the limited professional circle. He thought they owed much to the energy with which Dr. Tuke had carried out that view, for he suspected that was the cause that had led to many members of the bar wishing to become members of the Association. Several had been proposed as members, and he regarded the rejection of them as a great mistake. He regarded it as a great misfortune that others than medical men were not admitted; but at all events he thought the Association had been advanced by having the meetings reported, and he would advise their Irish friends to adopt the same plan as they had pursued in Scotland.

After some conversation as to the *verbatim* reports of the proceedings for the "Journal," the meeting returned to the question as to the payment of the expenses of the secretaries.

Dr. WOOD and Dr. LALOR expressed their opinion that any arrangement should, in fairness to Dr. Batty Tuke, be made retrospective.

Dr. BATTY TUKE, however, replied that it should be only prospective, and as such he would be glad to second the proposal.

After further conversation the matter dropped, it being understood that the Secretary's expenses in arranging for the meetings should be paid for out of the general funds.

Drs. Boyd, Sibbald, and Lindsay were appointed as members of Council in room of the retiring members—Drs. Crichton Browne, Dr. Christie, and Dr. Howden.

Dr. TUKE—I have much pleasure in proposing for election as an Honorary Member of our Association Dr. Prosper D'Espine, a physician well known to us all for his able researches in our science, and for his valuable work entitled "Psychologie Naturelle."

Dr. Déspine was elected.

The following new members were then proposed and elected:—Edmund Banks Whitcombe, M.R.C.S., Borough Lunatic Asylum, Birmingham; E. Maguire Courtney, M.B., County Asylum, Derby; W. S. Benham, M.D., Bristol Asylum; John Lamond Hemming, L.R.C.P., London, Munster House, Fulham; Dr. Greenway, 45, Grosvenor Park, London, S.E.; Dr. John Lowe, Assistant Medical Officer, Durham County Asylum; Dr. Herbert Mayo, West Riding Asylum. Dr. James Lawrence, Chester County Asylum; Isaac Ashe, M.B., Visiting and Consulting Physician, Letterkenny District Hospital for the Insane; Robert V. Fletcher, L.R.C.S.I., Assistant Medical Superintendent, Down District Hospital for the Insane; Alex. Paten, M.B., Resident Medical Superintendent, Farnham House, Finglas, County Dublin; Alexander W. H. Leney, M.B., Assistant Medical Superintendent, Richmond District Hospital for the Insane, Dublin; Dr. Alexander Simpson, Professor of Midwifery, University, Edinburgh; Dr. Malan, Assistant Physician, Southern Counties Asylum; Dr. Fraser, Assistant Physician, Fife and Kinross District Asylum; Dr. Scott Lauder, Ferry Port in Craig, Fife; Dr. Constable, Leuchars, Fife; Dr. Arch. Mackie, Cupar, Fife; Dr. Carmichael, Burntisland, Fife; Dr. J. Grant Wilson, 21, Finborough Road, West Brompton, London; Dr. Meikle, Melrose; Dr. Lyle, Assistant Physician, Parkside Asylum, Chester.

Dr. TUKE then read the following letter and proposed resolution which he had received from Dr. James De Wolf, Nova Scotia:—

“Nova Scotia Hospital for Insane,  
“Halifax, May 20th, 1872.

“DEAR SIR,

“As the time for the annual meeting of the Association is approaching, I have to request you will do me the favour to introduce for the consideration of members a resolution referring to the distribution of the Reports of the General Board of Commissioners in Lunacy to each and every Colonial Asylum. It happens, unfortunately, that in the very places where information is most needed, its want is not appreciated; and unless some means are taken to enlighten the self-satisfied, the grossest ignorance is likely to continue prevalent. I have no doubt whatever that the Commissioners would willingly send copies of their instructive report to every Colonial Asylum that would apply for them. On behalf of this institution I have gratefully to acknowledge their courtesy; but unless this especial want be brought to their notice through a proper channel, it is not to be expected they will concern themselves in the matter.

“An application to the Colonial Office has already been made, but in vain, and the only plan now feasible appears to be to request this favour of the Board through the medium of the Medico-Psychological Association. Will you as Secretary kindly propose in my name a resolution—either the one enclosed or one of similar import—seconded by yourself, or, probably, Dr. Arlidge, who is fully conversant with the deficiencies of many of the Colonial Asylums. I hope the motion will be supported by Mr. Mould, Dr. Clouston, Dr. Stewart, Dr. Paul, and others. I presume my right to appeal to the Association in this matter will not be questioned.

“The most recent statement in reference to Colonial Asylums is to be found in the late Sir James Clarke’s Memoir of Dr. Conolly, familiar to every Superintendent. A perusal of this portion of the work will satisfy anyone that in the smaller and more remote Colonies there is room for, and very great need of, improvements.

“Perhaps I would not be going too far in asking the Association to send one or two sample copies of the ‘Journal of Mental Science’ to each of these institutions.

“I have the honour to be,

“Your very obedient,

“JAMES R. DE WOLF,

“First Colonial Member.”

“Dr. TUKE,

“Hon. Secretary Medico-Psychological Association.”

“Whereas, in the interest of humanity it is highly desirable that every information on the subject of the construction and management of Asylums, and on kindred topics relating to the best care and treatment of the insane, should be disseminated to the remotest colony of Great Britain; and, whereas, in these outlying dependencies of the Empire such information is not readily to be obtained, nor where most required is its want at all appreciated; therefore be it resolved, that in the



opinion of this Association much good would be effected by the regular transmission to every Colonial Asylum of the Annual Reports of the General Board of Commissioners in Lunacy, and such distribution of their very valuable and instructive reports is respectfully suggested to the Board by this Association."

After a lengthened conversation, in the course of which the PRESIDENT said he had no doubt the Commissioners would, were the subject brought before them, do all in their power to represent it to the authorities, the following resolution was proposed by Dr. YELLOWLEES, seconded by Dr Deas, and agreed to: "That this Association recognises the desirability of the more general distribution of the reports of the Lunacy Commissioners, and requests their Council to take such steps as may seem to them best for furthering that end."

At this stage the meeting adjourned until the afternoon.

The Association again met in the same place in the afternoon, Sir James Coxe in the chair.

Dr. YELLOWLEES rose to move the resolution of which he had given notice last year, in regard to the admission to the Association of gentlemen who are not members of the medical profession. In supporting it, he said—I gave notice of the resolution because at the last meeting we did a rather curious thing—we appointed two gentlemen members of the Association and then, after doing so, a resolution was carried to the effect that the Association consisted entirely of members of the medical profession. We thus rather stultified ourselves, especially as at the present moment there are three or four members who do not belong to the medical faculty. This is not a good position to be in, and I propose a resolution to this effect:—"That gentlemen who are not members of the medical profession may be received as associate members of the Association; that these be elected in the same manner as ordinary members, but that they take no part in the business of the Association." I think we are all agreed as to the importance of extending the interest in therapeutics, and cultivating hygiene, and getting in as many members as possible of other professions to support these views; and the only question is whether we should receive these men as full members of our Association, or do as this resolution proposes—institute a separate branch, call them associate members, give them all the privileges of attending our discussions and reading our "Journal," and yet reserve to our Association the exclusive medical character which it has, and, I conceive, ought to have. Inasmuch as we are not only a Medical, but a Psychological Association, it is desirable to include in our ranks those gentlemen who may be associated with us in the psychological branch of our studies.

The PRESIDENT—It is a very important question which you have started. I should like to hear the views of the other members of the Association upon it.

Mr. MOULD—Would Dr. Yellowlees state precisely what he means when he says that the associates should take no part in the business of the Association? Would he define the business they are to take part in—if they are to join in the discussions, but have nothing to do with the finances and the working of the Association?

Dr. YELLOWLEES—Precisely; that they have nothing to do with the actual business of the Association. In that we reserve the medical character of the Association. We admit the outside public if we choose; but we do not admit them farther than we choose.

Dr. WOOD—There seems to me to be some difficulty in the proposition, because we are anxious to maintain our character of a Medical Association, and yet to admit those persons into it, though not to admit them into the management of the Association; I see some difficulty in drawing the line between those duties in which they are to assist us and those in which they are not to do so. They are as competent to take part in the management and finance as to discuss medical questions; and if we say they are to take part in the discussions, but not in the management of the Association, there seems to me to be some little inconsistency. I think if they are to be members at all, we should receive them as such to all intents and purposes. You may call them by any name so as to maintain the character of the Association; but I do not see how you are to divide the duties. I think that if a man is a member, or honorary member of the Association, he is entitled to take part in the proceedings, whether as to management or scientific discussion; but I cannot see how you are to shut him out of one part and admit him to the strictly medical part of our duties.

Dr. SIBBALD—I think Dr. Yellowlees' proposal rather loses sight of the object for which the Medico-Psychological Association is gathered together. I believe that the original idea was that all those who are interested in promoting the welfare of the insane, and those possessed of knowledge—theoretical or practical—bear-

ing on the subject should be united, and should use their influence for the promotion of those views which they consider it desirable to disseminate. Now, it appears to me that it is as much the interest of a member of the general public as it is of the medical profession that Medico-Psychological science should progress, and the condition of the insane should be ameliorated. I think it a great pity that we should appear as a mere sectional association—as an association representing the views of one profession, and carefully excluding the influence that intelligent members of the general public would wish to exert. I think that it would be a step altogether in the wrong direction to make any separation between the two. It would look as if our interests were not identical, which I believe they are.

Dr. CRICHTON BROWNE—If the associate members were only to take part in the medical discussions, the part they would take, judging from to-day's proceedings, would be extremely limited, as up to this hour we have been engaged in private business (a laugh). I think it would be invidious to entertain such a rule as that which has been proposed, and I question if the motion would secure the exact result desired. I do not think that we would get into the order of associates—inferior it would certainly be, as they are not to be admitted to the management of the association—one of any pursuit that may be considered kindred to our own. It is, perhaps, to be feared we might draw into our association certain enthusiasts, mesmerists, and persons of that class, who suppose themselves to be prominent men of the profession, but are not at the same time such as we should desire to have. This seems to me a most important question, and I think more discussion, more consultation is required before the motion is adopted. I suggest that the matter be referred to the Council for a report to next meeting.

Dr. CLOUSTON—While I agree very much with what has been said as to the undesirability of flooding the Association with a host of peculiar people who have no sympathy with our medical aspect, I think there can be little question among the members of the association that there are men who are not medical whom it would be most desirable to include in the ranks of our Association. I feel inclined to lay it down as a principle, and I think the society will admit it, that there are men who are connected with collateral science whom it would be desirable to admit amongst our numbers. I would be inclined to say, receive those, and admit them to the Association, but let the Association retain the power of admitting only those that on consideration they deem it proper to receive. I think there is no difficulty in doing so, provided you adopt the mode followed in most societies—that of having a ballot on all applications for admission to membership. You would at once do away with any offence to particular men, and it would be in the power of the Association to admit such men as it would be an advantage to have in the Association. I should be inclined to urge the admission of men outside the medical world famed for their studies in psychological science, but I say, "Reserve in your own hands the power of admitting only such as may seem suitable."

Dr. STEWART—I do not wish to give a silent vote on this question, and I would say, as one of the oldest members of the Association, that I do not think it would be wise to make an organic change such as that proposed. We are a professional body, and I think our prestige before the public depends on our profession, and I would object to any change which would have the effect of bringing any others than members of our profession into our Association.

Dr. ALEXANDER ROBERTSON seconded the motion.

Dr. ARLIDGE—The question now before the Association was discussed some years ago, when the same ground was gone over, and it is one of those questions which are continually cropping up. It has been always decided that we should exclude those who are not members of the profession; but I have to remind the meeting that we have non-professional members who are magistrates, so that we have been acting on one principle and professing to go on another. It is a very grave question, and heretofore I have been an advocate of admitting those who are not members of the profession as members of the Association. There is a deal to be said on that side of the question. The Association has power in its own rules to exclude those who are objectionable members, and we must admit there are many men whom we meet visiting asylums and on other business, justices of the peace and others, whom we would be glad to see at our meetings. It would be well for the Council to consider how far the proposal should be carried out, and under what restrictions. There is a good deal in favour of that, but there is an objection to giving men a partial power in our proceedings, such as they are, and I cannot say much for them (a laugh).

Dr. TUKE—I sincerely hope the meeting will pause before deciding on Dr. Yellowlees' motion, particularly in the affirmative sense. I know it is always undesirable to rise against a liberal measure, but on this proposal I will ask, what advantage are we to get? If there is any one of psychological attainments, or one versed in our pursuits, we can elect him as an honorary member. Have we any object in accumulating finances? We have already a balance which we are satisfied with. We are sufficiently rich for all our purposes. Any one can bring a visitor; a visitor can speak at our meetings. We are as Catholic as can be, and I think we had better keep in our own old groove.

Dr. MAUDSLEY—This question has been twice raised on former occasions. Once, ten years ago, it was decided in the negative, and again last year it was decided in the negative.

Dr. YELLOWLEES—I have not the least wish to divide the meeting. I was not aware that the question was discussed ten years ago. Last year, I know, it did come up, but the decision was of the most anomalous kind. We admitted two gentlemen, and then declared they were not members (a laugh). I am perfectly satisfied to have brought this matter forward, and am now quite content to leave it in the hands of the Council. I fully appreciate what has been said; I quite understand we do not wish an infliction of peculiar people (laughter), but I think there are a number whom it would be better to have as members of our Association. I now withdraw my motion.

Dr. LOCKHART ROBERTSON then said—I hoped to have, at this time, had for exhibition here the competition plans for the Virginia Water Middle Class Asylum, which is about to be built by Mr. Holloway, and I hoped it would be interesting to go through these, and that we might make suggestions that might be useful to the architects. But it so happens that they are to be exhibited this week at the Architectural Society in London, and the day fixed for so doing was so close on this, that Mr. Holloway was compelled to withdraw his sanction to my bringing them here. The plan is to erect a house for 200 patients, and Mr. Holloway in agreeing to that plan drew up a series of instructions to architects, based chiefly on the recommendations of the English Commissioners, adapted to the circumstances. Architects were invited to send in plans, and two prizes were given, one of £150 and another of £50. I have not yet heard the names, though I have seen the plans which Mr. Donaldson selected as the two best. Mr. Holloway intends spending altogether something about £70,000 or £100,000 on the place. It is a middle-class asylum. The property is to be handed over to trustees, who are to have it left to their own discretion to carry out the management of the asylum. Mr. Holloway purposes to build the asylum and work it for *one* year at his own cost, and, after that, to leave the building a self-supporting institution—that is to say, the patients have only to pay for their maintenance. It was very much pressed on Mr. Holloway to build it on the pavilion plan. Miss Nightingale urged that—but he prefers one block. There was one point in the landscape—near the Virginia Water Station, which he thought should be taken advantage of; and, as cost is not an object, it was determined a large tower should be built, and so one in the Lombardian-Venetian style,—certainly a fine tower—has been introduced by the architect. There is nothing very original elsewhere. The wards are on the ground floor; the two upper floors are reserved for the bed rooms, which are small; and the dormitories are in the usual proportion of 1 in 5 of single rooms. It is a subject I have taken great interest in from the first. Mr. Holloway mentioned the proposal to me, and I believe when the work is finished it will be a large boon to the great body of professional men, who hardly know to which side to turn when insanity comes upon their household. The maintenance will cost about £1 5s. a week each—unless meat gets much dearer—the patients finding their own clothing.

Dr. T. L. ROGERS then read a paper on "Seclusion." (*See Part I. Original Articles.*)

The PRESIDENT—We are much obliged to Dr. Rogers for his very interesting paper, and I shall be glad to hear any remarks offered upon it.

Dr. CRICHTON BROWNE—Would Dr. Rogers be kind enough to define "Seclusion?" It has very various interpretations (hear, hear).

Dr. ROGERS—I have not Johnson's Dictionary at hand; but you know the view the Commissioners of Lunacy take of seclusion—that any person who is locked into a room is secluded. I should not myself go so far as that. For instance, it generally occurs with paralytics when on their last legs, or rather when off their legs altogether, that it is desirable to keep their doors shut, in order to prevent others

intruding on them. The Commissioners are rather divided on that, but the "seclusion" I mean is, where a person is locked up not for bodily disease, but for a condition inherent to the mental disease itself.

Dr. CRICHTON BROWNE—Dr. Rogers defines "seclusion" as isolation in a room—generally locked in a room—and in that agrees, under certain conditions, with the Commissioners of Lunacy. I have known cases of persons holding the door, and that is not seclusion according to some, for the door is not locked (a laugh). I thoroughly agree with everything Dr. Rogers has said on that subject; I regard seclusion as a most valuable means of dealing with intractable cases, and should regard its abolition as something disastrous. I think there is scarcely any one who, in passing through life, in moments of chagrin or disappointment, has not felt a desire to retire into his own study and be alone and in seclusion for a time (a laugh, "hear, hear," and "compulsory?") No; by his own will (a laugh). I think there is scarcely any one in the exercise of the profession who, when called on to treat cases of brain excitement or delirium, would not, as the first thing, draw down the blind and turn everybody out of the room. I think it would be disastrous to us to allow such a means of treatment to be abolished, or at the same time to be used unless under medical advice. We talk of Shylock, and say he was particularly sanguinary because he wanted his pound of flesh. But we are in the habit of cutting off five pounds, for that is exactly the weight which may be deducted from each patient as the result of three days' seclusion. The Governor of a large prison told me that a prisoner for three days loses 5lbs. Of course this is somewhat dependent on the diet (laughter). But not altogether, for prisoners have been allowed the ordinary prison diet whilst undergoing imprisonment, and yet the darkness and solitude have been found alone to account for the loss of 5lbs. in three days. That shows that seclusion is a very powerful agent, and might be applied in a dangerous way to patients. It is dangerous in this way—it is one mode of disposing of a troublesome case. If we have recourse to it, it puts the patient out of the way. I think seclusion is an agent to be valued, but that it must be carefully watched.

Mr. T. O. WOOD—As I happen to be the writer of the unfortunate paper that has been so severely criticised by Dr. Rogers, I may be permitted to say that I have not advocated active exercise in all cases. There must be a proper discrimination of cases. The exercise the Superintendent gives his patient can be commanded by himself just as the medicines he can appropriately give when required. There is no doubt that in many cases of insanity exercise has the most beneficial effect. Again, in speaking of the obscenities of some female patients, he says we would disgust our younger and more delicate females who have some show of reason in their insanity. Now, I believe, in all good Asylums the patients are generally classified, and no one will think for a moment of putting a raving case of puerperal insanity in the same room with a young girl approaching convalescence. It was not the intention of my paper to defend that.

The PRESIDENT—It is a very wide question. No doubt seclusion is of great advantage, and apt to be abused. It must be left in the hands of every medical man to judge each case that comes before him.

Dr. LALOR—I quite concur with the other members who have spoken as to our indebtedness to Dr. Rogers for the intrinsic value of his paper, and the bringing up of a subject that requires further consideration and discussion. I do not intend to offer any opinion as to the whole question, but I must add my testimony as to the value of seclusion in cases of acute mania with a quick pulse and heated skin. In considering the question of seclusion and other questions, I think one point of value of all associations like this is, that we meet together, and might mention to one another where there would be opportunities of seeing the different matters that may be under the consideration of the association tried experimentally. I have often and often expressed my regret that there were no more means amongst the members of our society to ascertain where they could see an experiment made on any subject of which they wished to have practical knowledge to guide them, perhaps, in the treatment of a case that was brought under their notice for treatment for the first time. In this point of view I wish to follow, and do what I would wish my fellow members to do on this question of seclusion. It can be seen dealt with in the new hospital of St. Ann, in Paris, as part of a system decided on by a body of scientific men appointed by the late Emperor. I was in it two years ago, and I was surprised to see non-seclusion carried out so exclusively as it is there; and the Association can judge of it themselves when I tell them the construction of the place. It is capable of holding 600 patients, and has in it 20 single rooms. These single rooms are not in connection with each division. There are 12 rooms,

each for 50 patients, but there is no single room in connection with each division. The single cells were 10 in number for males, and 10 for females. They were in a distinct division of the house, and had special attendants; and so if it was considered necessary to make a seclusion of any of the patients, they had to be sent to those single rooms, and there they came under the treatment of a special class of attendants, and were kept there only during the excitement, which was stated to be only for a few hours; and, practically, the seclusion was so extremely limited that, during the time I was there, there were only six out of the ten cells occupied on the male side of the house.

Dr. DEAS—I simply rise to add another testimony to those we have already heard of our sense of the value of Dr. Rogers's paper, and to state my adherence to his views in almost every particular. I would simply say as to Dr. Lalor's remarks, that I do not think the value of the case he mentioned is so great as at first sight it seems. For 600 patients 20 cells is a large enough number, and six male patients in seclusion is enormous, and quite exceptional. It must be remembered that seclusion does not depend on the number of hours' confinement during the day, but also on the number secluded all night. To my mind there should be no distinction between the seclusion of patients during the day and their seclusion during the night. An excited patient is just as listless during the day as during the night, and as far as his feelings go it is just as much seclusion during the night as during the day. This is one of the anomalies of the subject, and we are much indebted to Dr. Rogers for bringing the subject forward, for we really think—and I express the opinion of many—that it is really time seclusion was on a different and better basis. It has long been regarded as opprobrious, and I think it must be put on the same basis as a rational treatment, to be used only at the discretion of the superintendent, as chloral, purgatives, or tonics, or drugs are used. The footing on which it has hitherto been has had a damaging effect on patients, and especially on nurses in Asylums. It has had a bad effect on the minds of attendants that they should look on seclusion as a bad thing. There should be no question about it. It would be a curious state of things that attendants should look on opium or chloral as a bad thing. It seems to me that a deal of the opprobrium would be done away with if it were put upon the same footing as other treatment. If it was, there would not be that tendency on the part of attendants to use it themselves if they are not watched. I think Dr. Rogers's paper is just one of those calculated to do away with those anomalies that exist on the subject.

Dr. STEWART—I have to express my concurrence with the beginning, middle, and end of the paper. Dr. Rogers's views entirely concur with mine, for I have looked on seclusion in the same way as on chloral and opium, considering that it is the bounden duty of the medical superintendent to view the use or disuse of the one in the same way as that of the other, otherwise he is not doing his duty to his patients.

Dr. YELLOWLEES—I just speak on this occasion, as I think all should, as this is a subject of importance. The popular idea prevails that seclusion is a punishment, and I believe the Commissioners of Lunacy wrongly gave rise to the misapprehension, though I do not think it can be fairly laid against the Commissioners. I think seclusion is a remedy, but one that should be viewed in the same manner as drugs. Voluntary seclusion is worthy of remark. I have known patients often wish to seclude themselves, and I think they ought to be able to retire, as Dr. Browne does when he gets out of temper (laughter).

Dr. TUKE—As Dr. Yellowlees has said we all ought to speak, may I say in a few words that I agree very much with what Dr. Rogers has said, but that I think the whole question turns on the definition of seclusion? I think that taking a patient and locking him into a room is simply committing an assault that you have no right to commit, unless on the very best possible reasons—reasons very grave, for if that remedy will do any good he may be said not to be in a state fit to be sent to an asylum. I sometimes see acute mania, but I should never think of putting a patient into a room there to be left. I should think the only result in that case would be that the friends would send for another physician. I think any measure tantamount to an assault should be avoided in practice if it can be avoided. I say nothing of public asylums. The use of seclusion is no doubt of the greatest possible importance. But in my own practice, now for 25 years, I have never once used it except it was voluntary seclusion. I think the only way is to engage a judicious attendant, and seclude the patient with the attendant. The seclusion in that manner is as curative, if properly carried out, as it well can be.

Dr. LINDSAY—I am happy to be able to endorse every word Dr. Rogers has said.

I think his paper is very valuable. We ought to husband the strength of the patient; and to walk a patient out in a field, or run him with two or three others, is not what we ought to do. With regard to voluntary seclusion, I think one ought to be a little cautious, for that may be abused as well as involuntary seclusion. I had a patient who, when she came under my charge, was for a long time in seclusion at her own request. But it was evident to me she was deriving no benefit from it: on the contrary was becoming more bearish. I told her it would be necessary to come out of her room; that she was injuring her health. I had to submit to a deal of abuse, but I got her reduced from a bear to a woman with whom I could play draughts—and she beat me (a laugh); but if she had been allowed to remain in her room I believe she would have derived no benefit, but would have become worse. I think we want some definition of seclusion, and uniformity of practice regarding it. Hardly two men will give the same definition of seclusion, and you can make no comparison of asylums. It is fashionable to judge asylums by the number of seclusions in them; but that is a most fallacious test. Once a patient may be kept in bed all day, not paralysed or otherwise unable to be up, but it is not recorded as day seclusion, but as medical treatment. Probably she may become excited in the afternoon, and is put to bed, but that is not recorded as seclusion in one asylum, whereas it is recorded as such in another; and the one is thought a very good and the other a very bad asylum. It would be very valuable to know the number of seclusions. You might argue from that the number of acute cases; but at present you can have no comparison. It would be very valuable if we could come to some very uniform practice, and all understand seclusion as the same thing, and to be recorded in the same way.

Dr. DUNCAN—I entirely endorse the views that the superintendent should judge each individual case, and exercise his own judgment on each case (hear, hear).

Dr. O. STEWART—As to Dr. Lindsay's remarks as to the looseness of the term "seclusion," I may say that I have paid some attention to this. When I was travelling in the United States the question was frequently put as to what seclusion was. I had previously visited many asylums in England and Ireland, and I felt great difficulty in coming to a conclusion as to what seclusion was, and I recollect a remark by Dr. Gray, who said, "We on this side of the Atlantic get the credit of having more restraint than you in England, but you in England have more seclusion than we have; but I have a difficulty in finding out what seclusion is, for I have written to a number of friends and have not got the same definition from any two." I have made it my business since I came home to find out the views of the medical profession on the point, and I find there are very few who hold the same view. One medical superintendent, if you put a patient into a room and he cannot get out, calls that seclusion, and another does not, for he says that although the patient cannot get out another can get in to him; and if there is access from the outside it is not seclusion (a laugh). The superintendent who gave that last reply is in a much lauded asylum, and he *was* a member of this association. I have heard of another who says that when a patient in a room is able to see out it is not seclusion. These are facts that struck me very much, and I hope that next year I may be able to give a table of the different degrees of seclusion. Before I sit down may I ask whether Dr. Lalor will tell us whether among those six cases in the cells at St. Ann's Asylum, in Paris, there were any suffering from physical disease or from acute mania? In fact, were the rooms used because the patients could not be in large dormitories because of physical disease or of acute mania?

Dr. LALOR—I was told that they were all there on account of acute mania. As I am on my feet, I would remark on the necessity of having the room for seclusion heated so as not to be under a proper temperature. I have no doubt resident superintendents would see that there was heat in the rooms, if they had an opportunity of doing so; but where there are no fireplaces in the rooms we have no means of doing so.

Dr. BATTY TUKE—We appear to have been talking for some time of the therapeutic action of a certain agent upon disease, but I fail to find out what the disease is. We have been talking about its effect on acute mania, and on the cases of excited patients, but that conveys to my mind no disease at all. One gentleman says he considers seclusion remarkably efficacious in a certain case of acute mania, and another says he considers it good in another. But there seems to me to be a loose use of the phrase acute mania; it gives no suggestion to my mind. Undoubtedly seclusion is good in certain cases, but it is not of certain cases that we should speak, but of certain forms of mental diseases, according to the pathological condition. No one would think of taking a puerperal woman and trotting her round a court

to remove her excitement, but on the other hand there are some conditions in which that might do good. It seems to me we require a uniform practical classification, and that discussions such as we have had now are utterly useless, when we are talking about what we do not mutually understand as the disease supposed to be under discussion.

Dr. SIBBALD—Every one who has previously spoken, in agreeing with Dr. Rogers's general views in regard to seclusion, has only expressed the rational opinion that every one must form. At the same time, I think the tone of most of the speakers has been in the direction that they feel that in using seclusion they are using an instrument, to the use of which there is very great temptation, and which may be used very often to the detriment of the patient. I think no general rule can be laid down with regard to seclusion on any condition whatever, except that the physician should consider each case, and act as he considers it to be best (hear, hear). At the same time I think we ought to continue to feel that one is very much tempted to use seclusion on account of its convenience, when it might be detrimental to the patient.

The PRESIDENT—I think it is quite impossible to draw any conclusion from the register, for what "seclusion" means to one is so different from what it means to another (hear, hear). But I think you can draw some conclusion from the condition of the asylum. When you find one asylum with a larger number of seclusions than another you may begin to suspect, and when you find an asylum different under one management from what it was under another, then you immediately think seclusion has been had recourse to.

Dr. ROGERS—It is extremely satisfactory to find the amount of discussion this paper of mine has brought forward. Dr. Crichton Browne refers to loss of weight. I have not taken down any experiment, but I think with Dr. Lalor that experiments might be made in this way, in acute cases of mania, by keeping patients in seclusion, weighing their food, and weighing themselves before and after the experiment. My impression is that we would find they lost less weight when in seclusion than otherwise. Dr. Deas seems to think that to attendants seclusion "by any other name would smell as sweet." In former times tartar emetic used to be kept by attendants, and given by them in larger doses than a physician would have given, and probably a better supervision would be exercised as to seclusion were it taken out of the hands of attendants. As to what has been said by Dr. Harrington Tuke, it raises the question if he can have suffered at the hand of the law for assault (a laugh). If he does not find it necessary to do what is against the will of a patient others have done so. In the first place, is bringing a person into an asylum at all not, according to his view, an assault, for he is brought without being consulted? Then, if a patient does not feel inclined to eat, does Dr. Tuke not have him fed, and is that again not an assault (hear, hear)? I have not much to do with the treatment of the aristocracy, but I should like to know if what is good for the pauper should not be good for a lord. The difficulty of effecting seclusion is a great drawback, but I think, with all deference to the Lunacy Board of England, there is the same difference among members of that Board that has been found existing among members here present. I have heard one say that one thing is seclusion and another hold that it is not. It seems to go by the old rule—"Quot homines tot sententiæ"—with the Commissioners, and if it is so with them, why should it not be so with us? I think that it must rest with the man at the head of affairs. If he thinks seclusion is good, I do not see why he should not exercise it, and we find there is some reason for the faith that is in us when we find that people take their food better in seclusion. Seclusion is only a comparative term. Patients may be inside the ward, and you may have persons looking in at them, but yet they are secluded from the rest of the world.

Dr. Boyd's paper was the next in order, but it was taken as read, and will be published in the January No. of the "Journal of Mental Science."

Dr. CRICHTON BROWNE then exhibited a number of photographs of pathological specimens, which had been taken in his own asylum. He remarked that he had been much struck with some of them, and that it must be peculiarly interesting to the President—who had, through good report and through bad, adhered to phrenological ideas—to find them coming back to the terms of phrenology. These photographs were a series which he had taken by having the brains prepared by freezing, and he had them in every form, so that the convolutions of the brain could be distinctly seen.

The PRESIDENT said they were most interesting, and that he hoped Dr. Browne would continue to add to his valuable collection.

Dr. TUKE then said—I rise, gentlemen, to propose a resolution which I am sure will be received with the greatest possible pleasure by everyone in this room. It is to thank Sir James Coxe for his conduct in the chair to-day, and to express our gratification with the reception he has given us, both yesterday and to-day (applause). materially yesterday and intellectually to-day. As host and as President, you have, Sir James, gained our gratitude and our attachment (applause).

Dr. LALOR—I heartily second this resolution, for I feel the thanks of the association are due to Sir James Coxe for his conduct in his double capacity of host and President. The greatest difficulty Sir James has overcome to-day is that, whereas yesterday we thought it impossible he could go further than he then went, to-day he has exceeded even himself—that his eloquent and exhaustive address of to-day has, if possible, exceeded his exhaustive entertainment of yesterday (laughter). Where an address has been so comprehensive and exhaustive, it is difficult to single out any special parts for special commendation, and, in infringing a little on that general principle, I do so not at all presuming to say to this meeting that any part of the address is more deserving of attention and praise than another. But there are one or two points that, as to myself especially—as we all have our particular hobbies—it did excite in my mind a peculiar gratification that they were touched on in his address, and were touched on so very ably. I was delighted that Sir James Coxe, in the medical portion of his address, combined two points as to the pathology of disease that I think are not usually combined in the same degree as they ought to be; that is, as to the causation of insanity, not alone by physical changes on the nervous structure of the brain, but by change on that on which the brain is dependent for its animal functions, viz., change on the blood. I have for many years been of opinion that in a vast number of cases of insanity the blood is that on which they depend, and I was delighted to find that Sir James Coxe lent his great name to the dissemination of such a principle in bringing it before the members of this association for their special pathological investigation in their several asylums. I regard it—and I dare say this is the reason why this branch is not cultivated in our asylums so generally as some of us would wish—as a branch very much in its infancy. I should hope, however, that as time wears on the means, and the knowledge of using the means and instruments, will extend from year to year, and that after some time we shall have that wide and interesting field of observation—the pathology of the blood as it relates to physical and mental diseases—more fully and extensively studied. There was another branch of the address that pleased myself particularly also, and that was with regard to the study of the means of preventing mental disease—not alone the cure of disease, but the means of preventing it—hygiene, as applied to the prevention and cure of disease. I have mentioned these points, not intending to say that they are of importance over the other parts of Sir James's address, in which it is difficult to particularize any part as above the other, so equally were they all of value, and so equally dwelt on in that elegant and eloquent address (hear, hear). It gives me great pleasure indeed to second the motion made by Dr. Tuke, that Sir James Coxe receive the warm thanks of the meeting as our host yesterday, and as our President to-day (applause).

The PRESIDENT—I have merely to thank you, gentlemen, for the kind way in which you have received my efforts to do my duty. I was afraid, as I am now very much afraid, that I was not the right man in the right place, but I determined to do what I could (applause).

A vote of thanks was passed unanimously to the President and Fellows of the Royal Society for the use of their rooms, and the meeting was then dissolved.

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On Tuesday evening, the 30th, all the members of the Association had been invited to dinner at the Douglas Hotel by Sir James Coxe. More than a hundred gentlemen sat down to a most elegant dinner in the large new room of this hotel. Among the guests were Sir Alexander Grant, Principal of the University, Sir Robert Christison, Sir John Don Wauchope, Chairman of the Board of Lunacy, the Presidents of the Colleges of Physicians and Surgeons several of the Professors in the University, &c., &c. Letters of apology were received from many members of the Association and others in the country, and from the following distinguished honorary members in France, viz. MM. Falret, Briere de Boismont, Moreau de Tours; Morel, and Legrand Du Saule. Some of these gentlemen expressed a warm



interest in British psychological medicine, an interest which was reciprocated very heartily by all present. Earnest wishes for the continued prosperity and success of the brilliant French school of medico-psychology were expressed by the host and cordially joined in by all the guests of the evening. The meetings of old friends, the making of new ones, and above all the genial and princely hospitality of Sir James Coxe, made the evening one that will be long and pleasantly remembered by all who had the gratification to be present.

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The public dinner of the Association, which took place on July 31st, Sir James Coxe in the chair, brought to a close a most successful meeting.

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### THE DARKENED MIND.\*

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The fire is burning clear and blithely,  
Pleasantly whistles the winter wind;  
We are about thee, thy friends and kindred,  
On us all flickers the firelight kind;  
There thou sittest in thy wonted corner  
Lone and awful in thy darkened mind.

There thou sittest; now and then thou moanest;  
Thou dost talk with what we cannot see,  
Lookest at us with an eye so doubtful,  
It doth put us very far from thee;  
There thou sittest; we would fain be nigh thee,  
But we know that can never be.

We can touch thee, still we are no nearer;  
Gather round thee, still thou art alone;  
The wide chasm of reason is between us;  
Thou confutest kindness with a moan,  
We can speak to thee, and thou canst answer,  
Like two prisoners through a wall of stone.

Hardest heart would call it very awful  
When thou look'st at us and seest—O what?  
If we move away, thou sittest gazing  
With those vague eyes at the selfsame spot,  
And thou mutterest, thy hands thou wringest,  
Seeing something,—us thou seest not.

Strange it is that, in this open brightness,  
Thou shouldst sit in such a narrow cell;  
Strange it is that thou shouldst be so lonesome  
Where those are who love thee all so well;  
Not so much of thee is left among us  
As the hum outliving the hushed bell.

—James Russell Lowell.

\* Under the Willows and other Poems. By James Russell Lowell. Macmillan and Co. 1869.

*Obituary.*

WILLIAM CORBET, M.B.

It is with considerable regret we have to record the death of a most amiable member of our specialty in Ireland, that of the above named gentleman, after an illness of but a few hours' duration. On the day of his death the deceased was in his usual health, and after going his accustomed and punctual rounds of his patients, was on his way in his own carriage to Dublin, when he was seized with an attack of paralysis, under which he succumbed in the course of a few hours. The deceased had attained the ripe age of seventy-nine years, but was still active in mind and body, and might be literally said to have died in harness. Dr. Corbet had been the very efficient Resident Physician and Chief Officer of the Government Institution for the Criminal Insane at Dundrum in the County Dublin, having been the first who was appointed to that most important and responsible Office, and having discharged its duties with zeal and ability for the lengthened period of twenty-two years. He was a gentleman of a highly cultivated mind and eminent as a classical scholar. He was modest and retiring, almost to a fault, which prevented him from being better known either amongst his own profession or the general community. In our issue of October last an opportunity was afforded us, in reviewing the Irish Inspectors' Parliamentary Report in January, to refer to his able management of the establishment over which he presided so many years, and to remark upon the very inadequate remuneration doled out to him by the Executive Government for his valuable and conscientious services. Dr. Corbet was a regular member of the Medico-Psychological Association for a series of years up to his death, but did not take any part in its meetings, the limited time he had for recreation being devoted by him to annual Continental tours for invigorating him for the continued efficient discharge of his arduous duties.

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CORRESPONDENCE.

APHASIA.

*To the Editor of the Journal of Mental Science.*

SIR,—In reply to Dr. Wilks' letter contained in your last number on our case of lesion of Broca's convolution without, as we hold, Broca's Aphasia, we beg to say, that far from wishing to indicate that any confusion existed by what was meant by Aphasia, our desire was to indicate that a very accurate differentiation existed between its varieties, and were it not for Dr. Wilks' statement, we could not have believed that in London the term Aphasia was held by most medical men to indicate the one form, Amnesic Aphasia. In the North the two forms are recognised and acknowledged in diagnosis and terminology.

We think it cannot be doubted that this was not a case of Ataxic Aphasia. The woman could pronounce all words. The left frontal lobe was injured in three of its convolutions, and the locus indicated by Broca as the seat of the power for the production of articulate speech (not memory of words), was

involved in their destruction. All Broca's cases on which he has founded his theory, are distinctly cases of Ataxic Aphasia. His patients had lost the faculty of speech and had not lost the memory of words. This woman had the faculty of speech intact, but had forgotten certain words. On this ground we argued that Broca was wrong in his localization.

If Amnesia in this case was the result of the lesion, it is a singularly important one, as it tends to bring the subject to a very fine point. Be it remembered that certain nouns were the only words this woman had forgotten; all other parts of speech were perfect, therefore, if the lesion and the loss of power over their use were cause and effect, we would be in a position to argue that the power of employing nouns lay in this neighbourhood, and that the use of the more complicated parts of speech lay elsewhere. But we cannot believe in any primary connection between the symptoms and the lesion; this imperfection increased gradually with the loss of general intellect. The lesion had existed for eleven years, but when we first knew her the amnesia was very slight, and we cannot suppose that the lesion had altered for many years.

If Dr. Wilks were to advance the theory of the right side of the brain having taken up the function of the left in the case, supposing it to be correct, the normal sequence in the acquirement of language must have been curiously reversed, for, as above stated, substantives which are, under ordinary circumstances, the first words acquired, were the only parts of speech absent. This fact disproves any such hypothesis.

If, inadvertently, we did not give Dr. Robertson, of Glasgow, full credit for his labours on Aphasia, we beg to apologise, but we must add we see nothing in his letter to change our opinion of the deductions the case causes us to draw in reference to his theory.

We are, &c.,

J. BATTY TUKE, M.D., &c.

JOHN FRASER, M.D., &c.

Fife and Kinross Asylum, Cupar,  
3rd September, 1872.

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## PENSIONS TO ATTENDANTS.

*To the Editor of the Journal of Mental Science.*

SIR,—In the early part of last year I wrote to the "Lancet," suggesting the propriety of a Pension Fund being formed for the benefit of attendants in Scotch Asylums. I have thought over the matter since, and feel even more convinced than I did then that the institution of such a fund is both practicable and desirable.

I believe that if all the asylums and lunatic wards of poor houses would combine and agree to pay 10s. a head per annum for every attendant in the service, quite sufficient funds would be provided to meet the demand.

The annual payments ought to go on, I think, accumulating for ten years before any pension be granted. No one would be entitled to participate in the fund under 50 years of age, and who had not been ten years in the service. £15 might be given for ten years' service, £20 for fifteen years, and £25 for twenty years. The amount of pension, however, is a matter which could be easily arranged after the formation of the fund. I would be inclined to allow the females to participate at the age of 45, as being sooner aged than men.

The outlay on the part of asylums would be but little on the whole, and the benefits, I think, would be great.

We cannot expect to keep good attendants as they are at present paid, when such asylums as Broadmoor and the Coppice, Nottingham, pay £30 for male, and £20 for female attendants at the very beginning of their services.

Wages have risen greatly in every trade, and unless we are prepared to take the oil-scourings of society to look after and nurse our insane poor, we must move with the times. In no better way, I venture to think, can we do so than by offering pensions for long and faithful services.

I am,

Your obedient servant,

THOMAS HOWDEN, M.D

Haddington District Asylum,  
June 5, 1872.

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### *Rewards to Attendants.*

The following letter has been addressed by Dr. Mitchell to Superintendents of Asylums:—

SIR,—As Morisonian Lecturer on Insanity to the Royal College of Physicians, it falls to me this year to dispose of three prizes, of £3 each, for meritorious attendance on the Insane. These prizes are derived from a fund left by Sir Alexander Morison, for that purpose.

I have also to announce that I am in a position to add to the Morison prizes four others—one of £3, and three of £2 each.

There will thus be seven prizes in all to be awarded.

I shall be obliged by your bringing this matter under the notice of the Attendants of your Establishment, so that those may compete who think their services give them a claim.

Applications, with Testimonies, should be addressed to me, at the Physicians' Hall, Edinburgh, on or before the 1st of October.

I am, Sir,

Your obedient Servant,

ARTHUR MITCHELL.

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### *Books, Pamphlets, &c., received for Review, 1872.*

1. Wilhelm Griesinger's gesammelte Abhandlungen. Two volumes. Berlin, 1872. *See Part II. Reviews.*
2. Lectures on the Psychology of Thought and Action, Comparative and Human. By W. D. Wilson, D.D., L.H.D. Ithaca, N.Y., 1871. *See Part II. Reviews.*
3. On the Relation between Science and Religion. By George Combe. Fifth Edition. MacLachlan and Stewart. 1872. *See Part II. Reviews.*
4. On Cerebralia and other Diseases of the Brain. By Charles Elam, M.D. London: J. and A. C. Churchill. 1872.

*This work, the design of which is to bring into notice more prominently than has been done heretofore the distinctive phenomena of Inflammation of the Substance of the Brain Tissue, will be reviewed in our next number.*

5. The Fallacies of Teetotalism. By Robert Ward, Editor of the "North of England Advertiser." Simpkin and Marshall. 1872.

*In this Book, Mr. Ward ably exposes "the false doctrine of the United Kingdom Alliance," and "the detestable tyranny of the Maine Law or Permissive Bill," and points out the limits of the duty of the legislature in dealing with personal freedom. We think that Parliament has of late exhibited a foolish tendency to legislate upon matters with which it ought not to concern itself, and that from the eagerness of notoriety in some of its members, and from the fanatical views of others, there is some danger lest all the independence and manhood should be legislated out of the community. Social science philosophers, and newspaper writers in search of sensational matter to moralize upon, greatly encourage this tendency; so that, if matters follow their present course, we may expect that it will be enjoined by Act of Parliament at what hour in the day a man shall wash himself, and what sort of soap he shall use. Though we agree with Mr. Ward, then, in deprecating too minute and meddling legislation, we do not entirely endorse the opinions which he expresses with regard to the value of alcohol. After all, there are very few persons who would not do very well without it, and who would not probably be the better for doing without it. Perhaps the best argument in favour of its use is that life would be intolerable except for its vices.*

6. Twenty-sixth Report of the Commissioners in Lunacy to the Lord Chancellor, 1872.

Fourteenth Annual Report of the General Board of Commissioners in Lunacy for Scotland, 1872.

*(Will be noticed in our next number.)*

7. The West Riding Lunatic Asylum Medical Reports. Edited by J. Crichton, Browne, M.D. Vol. ii., J. and A. Churchill, 1872.

*(Will be noticed in our next number.)*

8. A Study of some Points in the Pathology of Cerebral Hæmorrhage. By C. Bouchard, M.D. Translated from the French, with notes by T. J. MacLagan, M.D. Machlachlan and Stewart, 1872.

*(We are glad to see an English translation of this important and original monograph, to which we shall recur on another occasion.)*

9. Verhandlungen der Berliner Medicinischen Gesellschaft aus den Jahren, 1867 and 1868. Berlin, 1871.

10. Chorinsky. Eine gerichtliche psychologische Untersuchung. Von Dr. Friedrich Wilhelm Hagen. Erlangen, 1872.

11. On Dipsomania. By J. G. Davey, M.D.

*This is a reprint from the Transactions of the St. Andrew's Medical Graduates' Association. Dr. Davey is as vigorous as ever on behalf of Phrenology, and thinks it extraordinary that eminent authors should ignore it as they do. The direct object of the paper will be shewn, however, by the following quotation:—*

*"Children are not asked if they will go to school; they are sent. The ordinary dipsomaniac may, as a general rule perhaps, be encouraged to put himself voluntarily away from temptation, and under the necessary treatment, in a sanatorium; but when he will not do so, he should be done with as if he were suffering from the acute form of the malady, from delirium tremens; that is to say, he should be secluded in spite of himself, or by compulsion. For this much a wise and considerate legislature will ere long, make due provision. Our American cousins have in this matter given us a wise and humane example; for at the 'Washington Home,' at Boston, opened in 1857 as an Inebriate Asylum, the results which have followed its operation have been most successful."*

12. Dissertation on the Use of the Stethoscope in Obstetrics. By Æneas Munro, M.D.  
The Vomiting of Pregnancy. By Æneas Munro, M.D.
13. Statistics of Mortality among Prisoners, with Pathological Observations. By David Nicolson, M.B. Adlard. 1872. (*Reprinted from the British and Foreign Medico-Chirurgical Review.*)
14. Hades! Its Physiological, Psychological, and Theological Aspects. By Hugh Hastings, M.D. (*Those who are anxious to learn what will happen to them after death, may buy for 3d. Dr. Hastings' little pamphlet. To know all about the Physiology, Psychology, and Theology of Hades, for so small a sum, cannot but be considered a wonderful bargain; moreover, it will add some interest to the hereafter, to discover, when they enter upon it, whether Dr. Hastings was right.*)

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### Appointments.

GILLESPIE, W. H., L.K.Q.C.P.I., L.M., L.R.C.S.I., has been appointed Assistant Medical Officer to the Dorsetshire Lunatic Asylum, Dorchester.

MAJOR, H. C., M.B., C.M., late Clinical Assistant at the West Riding Asylum, Wakefield, has been appointed an Assistant Medical Officer to that institution.

SHONE, R. L., M.R.C.S.E., has been appointed second Assistant Medical Officer to the Essex Lunatic Asylum, Brentwood.

SPENCE, J. B., M.D., has been appointed Assistant Medical Officer to the Staffordshire Lunatic Asylum, Burntwood, *vice* E. C. P. Fox, M.B., resigned.

WARD, J. B., M.D., Senior Assistant Medical Officer, Warwick County Lunatic Asylum, has been appointed Resident Medical Superintendent of the Warneford Lunatic Asylum, Oxford, *vice* Thomas Allen, L.R.C.S.Ed., M.R.C.S.E., resigned.

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THE IRISH MEMBERS OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—We are glad to hear that a General Meeting of the Irish Members of our Association has been summoned to meet in the King and Queen's College of Physicians, Dublin (whose Hall has been kindly granted for the occasion), on Wednesday, the 9th instant, for the purpose of organizing such branch meetings during the year in the Sister Kingdom as have been held on this side of the Channel and in Scotland; and for the consideration of matters more immediately affecting the interests of our Irish brethren. This is a step in the right direction, and from which we augur the best results.

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# THE JOURNAL OF MENTAL SCIENCE.

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VOL. XVIII.

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## PART 1.—ORIGINAL ARTICLES.

*The Madmen of the Greek Theatre.* By J. R. GASQUET, M.B.

(*Continued from page 360.*)

### III.—THE AJAX AND ŒDIPUS OF SOPHOCLES.

The most perfect specimens of the Greek drama which time has spared to us, the tragedies of Sophocles now extant, contain, unfortunately, little to my purpose. We shall hereafter see that those plays have been unfortunately lost in which insanity must have been a prominent feature; but it also seems likely that Sophocles was intentionally sparing in his introduction of madness on the stage. We have had one instance of this in the case of Orestes, who is the most prominent mad hero of Æschylus and Euripides, and yet is portrayed by Sophocles as perfectly sane; and the story of Hercules, in its different treatment by Sophocles and Euripides, is another example.

This is, I believe, no mere accident, but is due to the manner in which Sophocles handled the legends which served as themes for all the Greek tragedies. The relation of human free will to the government of the world by a higher power was for him even more prominently than for his fellow-tragedians the central point of all his work. It had been enough for Æschylus to state the two terms of the problem, without attempting to show they were commensurable; and the difficulty is only partially veiled by the greater clearness with which he saw and presented the supernatural, than the natural, aspect of life.

Euripides is at the other extreme: his mind was matured at a time when the old religions were losing their hold on men, and during a period of rapid political and social changes. To him, as to Shakespeare (who stands in a somewhat similar

relation to the religion and polity of mediæval Europe),\* the divine element in tragedy is much less important than the characters, sufferings, and passions of the human actors. The Gods and the Furies are put before us in a far more shadowy manner than the chastity of Hippolytus, the devotion of Alcestis, or the vengeful despair of Medea. Accordingly, he prevents any clashing between the supernatural and natural elements, by the practical suppression of the divine principle as a power *morally* superior to man. The constant intervention of gods in his dramas is a proof of the essentially subordinate position which they occupy, though at first sight it may seem paradoxical to say so.

The harmonious mind of Sophocles would have rejected either of these compromises; he was able to place before his audience each of these elements of tragedy expressed with equal vividness and truth;—in his plays, the gods are not treated as mere puppets, nor are men described as helpless, though heroic, sufferers under an hereditary or acquired curse.

The means which he employed to connect these two apparently incommensurable factors in the drama of life—free will and the government of the world—was by showing the moral discipline of man to be the principal result of divine visitations.† This conception raises Sophocles far above the level of other heathen poets, inasmuch as he proclaims, with the Christian, the moral value of suffering; but it is obviously unfavourable to the introduction into his plays of any lowering or enfeebling of the mind as produced by trials of any kind. It is fitting that his heroes should rise above the waves of adverse fortune, with characters purified and ennobled by the sufferings they undergo; did their reason fail and sink, the moral lesson of his plays would be gone.

A striking instance of this is to be found in his delineation of the legend of Œdipus. I have said before that Orestes was the representative, in the ancient drama, of the typical character which Shakespeare has drawn in Hamlet; in the same way, Œdipus strikingly corresponds to Lear. In either case we have a king, whom constant good fortune has

\* I mean, of course, *artistic* relation, which implies nothing as to the truth or falsehood of any form of religion, but merely its bearing on the writer's work. Such religion as does appear in Shakespeare is Catholic, and has a *moral* value in his plays, very different from the Paganism of Euripides.

† Since writing the above, I have been glad to see that this is the view taken by Mr. Jebb, in his eloquent lecture on "The Genius of Sophocles" (in "Macmillan's Magazine" for November, 1872).



elated, and who has been made self-reliant and imperious by the long possession of absolute power. This is a character which seems to repel sympathy, but Sophocles begins from the first to attract us, with his customary irony,\* to the terrible fate which awaits the unconscious king; and, afterwards, every art is used by both tragedians to rouse our feelings of pity for those who seemed to need it so little; and with such success that, while Aristotle calls *Œdipus Rex* "the most tragic of dramas," Schlegel says "in *King Lear* the science of compassion is exhausted."

The effects of the trials they undergo on the character of each are very fully drawn out; indeed, the change in *Œdipus* is portrayed with an amount of detail very unusual in a Greek tragedy—but their divergence from a common starting point is all the more remarkable.

It was in accordance with Sophocles' plan that his hero should suffer such a stress of mental anguish as to make the horrible details of his self-mutilation almost a relief to the reader; but he wished above all to show how the heaviest curses are blessings in disguise, if they lead to self-discipline and moral improvement, and he therefore carefully avoided the least sign of failing intellect, such as Shakespeare has so wonderfully drawn in *Lear*. Blind, an outcast, and a beggar, tended only by his daughters, *Œdipus* resting on a stone by the wayside at *Colonus*, is greater to every morally discerning mind than he was on his throne at *Thebes*.

The *Œdipus at Colonus* is the last and sweetest note of the dying swan of Athens, and incidentally supplies me with matter for remark,† but I have no further excuse for dwelling on it; as I must also pass over the other plays of Sophocles, even though they describe the tender heroism of *Antigone*, the manly resolve of *Orestes*, or the patient endurance of *Philoctetes*.

\* The "irony of Sophocles" is the phrase used by Thirlwall in his well-known essay, to express the contrasts between the apparent state and the real condition or destiny of the chief actors in his tragedies. The ordinary example given is the couplet—

"See, all unconscious of their fate  
The little victims play."

But the best instances within the reach of modern readers are to be found in Thackeray's novels, in whose pathos this was an almost invariable element.

† Sophocles, in extreme old age, was the subject of an "inquisition" (to speak technically), in which his sons raised the question of his imbecility and unfitness to manage his affairs, and he read one of the choral odes in this play, just composed, in his defence. Such Attic Commissions in Lunacy were not unfrequent devices of young men, as I conclude from *Aristophanes* in *Nubes*, v. 845

Ajax is the only hero of his extant tragedies who ever suffers from insanity, and, in some respects, the most interesting of all the madmen of the Greek theatre. Schlegel considers that the special theme of the *Ajax* is the sense of manly honour, and this is true of the latter part of the piece; but the chief purport of the whole may fairly be supposed more akin to our subject. It shows how, like every bitter experience of life, even a fit of madness may be a gain if it lead to moral discipline and improvement. We have all seen cases in which an attack of insanity has proved the turning point of life, and roused a man to a sense of the consequences of some course of outward vice; but we more seldom remark—perhaps the thing is rarer, or our own senses are less practised—how a character, spoiled by the more deadly faults of self-sufficiency and pride, may be broken by an attack of insanity, and come out from it really humble and self-distrustful.

This was the case with Ajax; his offence before the gods was the proud, self-sufficient spirit which had led him to reject all offers of heavenly aid, and to rely only on the strength of his own arm, and the valour of his own heart. The same temper had made him unpopular with his fellow-chieftains, from whom he dwelt apart in his tent on the strand, and when he contended before them with Ulysses for the arms of Achilles, they were assigned to his rival. Then the ungoverned spirit, when balked of its desire, broke out into violent and insane acts. Ajax rushed from his tent, slew the herds which had been driven in from the Trojan pastures, and the herdsmen, and was seen “stalking alone over the plains with a freshly-reeking sword.” The play opens at this point, with Minerva’s appearance to Ulysses, who had gone forth warily to see if these things were true. She tells him that Ajax had meant to slay the Argive hosts, and had arrived at the very gates of the two generals, when—

“ I kept him from his sweet revenge, and set  
 Before his eyes fancies hard to be borne ;\*  
 And on the herds, a booty not divided yet,  
 I turned him. He fell on, and all around  
 He smote the horned host, and now it seemed  
 That here he held and, with his own hands, slew  
 The two Atridæ; then on other chiefs he fell,  
 While I urged on, and caught in evil snares,  
 The man with mad distemper frenzied thus.

\* *Ἐνσφόροι γνώμαι* sunt hoc loco ludibria oculorum, specie terribilia, ad deflectendum a proposito itinere Aiacei.—(Lobeck, in Oxford Translation.)

And when at last he rested from his work,  
 The cattle and the sheep that had survived  
 He bound, and led them all to his own tent,  
 Thinking he had to do with men alone  
 And not with horned spoil; and now within  
 He keeps them bound and scourges them.  
 Nay, I will show thee his disease most plain,  
 Which, having seen, to all the Greeks then tell;  
 Stay fearlessly, and think not harm will come.  
 His eyes I will avert, so that he sees thee not,"\*

Ulysses objects strongly to having his old enemy thus brought out, but is taunted by Minerva with his fear of seeing a madman; to which he replies, "I would never have shrunk from seeing him when sane;"—a curious instance of the fear which a lunatic naturally inspires. But Minerva calls Ajax forth, and asks him how he has fared; he replies that he has slain the Atridæ, and that he has "that cunning fox," Ulysses, a prisoner within; that he is going to bind him to a pillar, and scourge him before putting him to death. She begs for mercy, which he refuses, and goes in again to finish his work. She then turns to Ulysses, who profoundly compassionates his enemy—

"In that he hath with evil fate been yoked;  
 Thinking not more of his lot than of mine,  
 For all of us that live I see are naught  
 But passing shadows or unreal dreams."

I cannot forbear giving the final moral which Minerva points for her hero, in the words of Prof. Plumptre's elegant translation—

"Do thou, then, seeing this, refrain thy tongue  
 From any lofty speech against the gods;  
 Nor boast thyself, though thou excel in strength  
 Or weight of stored-up wealth. All human things  
 A day lays low, a day lifts up again;  
 But still the gods love those of ordered soul,  
 And hate the evil."

The scene changes, and Tecmessa comes forth to tell the calamity that has befallen their chieftain and her lord to the sympathizing Chorus of sailors from Salamis, saying that "he is now calm." She goes on to give them some details of the attack. He had arisen in the dead of the night, seized his two-edged sword, and earnestly desired to go forth. She strove to keep him back, but he answered her with one short, "ever-chanted" phrase—

"Woman, to women silence adds a grace,"  
 rushed forth alone, and after a while returned with the

cattle and sheep, some slain, and others bound, which he scourged. "At last, bursting through the doors, he shouted out some words to I know not what shadow, now against the Atridae, now about Ulysses, adding much laughter. And then again he rushed into his tent, and is hardly yet, after a long time, in his senses. And when he looks through the tent, and sees the marks of slaughter everywhere, he first smote his head and cried aloud; and lay stretched on the ground amid the carcasses, tearing his hair with firmly clenched hands and nails. And a long time he thus sat silently, then he threatened me in terrible words, unless I told him all the misfortunes that had happened, and he asked me in what case he could be. And I, friends, being afraid, told him all that had happened, as far as I knew; but he at once broke out into sad lamentations, the like of which I had never heard from him; for he was always wont to say that such were only suited to a cowardly and poor-spirited man, and (if he were suffering) would, instead of sharp cries, groan inwardly like a bull. And now, being in such a miserable state, he has taken neither food nor drink, but lies amongst the slain cattle, and is evidently about to do something evil."\*

Such is the account given by Tecmessa of the outbreak of insanity. I think it must have an interest for all of us, as an evident proof that Sophocles had observed intelligently the phenomena of mania, and perhaps reproduced for us the very terms in which some poor woman of Colonos or Athens had related her trouble with an insane husband twenty-three centuries ago. Without trying to put more meaning into Sophocles' words than he intended, I think it may be fairly said that the selection of such points as the nocturnal invasion of the disease, the restlessness with which it began, the repetition of the same phrase in answer to all Tecmessa's entreaties, the gradual return to reason, and the altered voice, testify to considerable power of describing diseased states of mind; on the other hand, the attack is unduly compressed, to suit the rules of Greek tragedy, and there is no attempt at exhibiting such a gradual climax of passion before the outbreak as Shakespeare would certainly have conceived.†

After this, Ajax is brought on the scene once more, restored

\* Vv. 285-326.

† But it is to be remembered that this is only the second play of a trilogy, the first of which may have included this subject.

to reason, but completely crushed by the calamity which had overtaken him. There is no further introduction of insanity, but the next portion of the play is not without its interest for us. Its point is the suicide of the hero; but it is expressly intended to represent this as the carefully premeditated, deliberate act of a perfectly sane man. In this respect it stands apart from all the other self-murders of which Sophocles is as prodigal as Shakespeare. As Schlegel remarks, the miserable wife-mother of *Œdipus*, the lover of *Antigone* and his mother, and *Dejanira*, the jealous wife, all commit suicide under a sudden stress of grief, unpremeditatedly; but in *Ajax* it is the natural ending to the life of one whose spirit has been utterly broken, and who sees no other honourable issue than death.

It may be some such case that Aristotle had in his mind when he guarded his condemnation of suicide, saying that "dying to escape from poverty, or the pangs of love, or anything that is simply painful, is the act not of a brave man, but of a coward; because it is mere softness to fly from what is toilsome; and the suicide braves the terrors of death, not because it is honourable, but to get out of the reach of evil."\* Among the many suicides in Shakespeare, *Brutus's* and *Mark Antony's* may seem to resemble that of *Ajax*; but *Othello's* end, when he recovers from his mad fit of jealousy and sees that a longer life is impossible for him, is the closest parallel. The words—

"Here is my journey's end, here is my butt,  
And very sea-mark of my utmost sail,"

might have been spoken by the son of *Telamon* as fitly as by the *Moor*.

But I do not remember any instance, either in the ancient or modern drama, where self-murder (very rarely represented, by the way, as the act of an insane mind) is raised to such importance as in this play. I take the reason to lie in the circumstances of the time when it was written. The sufferings of the chieftain, who was a victim not merely to an exaggerated sense of honour, but to real neglect of his merit, and to the scorn of his inferiors, found many a parallel in the history of ungrateful Athens. Thus, some three years before, in the fifth year of the Peloponnesian war, *Paches*, the reconqueror of *Lesbos*, had been brought to such

\* III. *Eth: Nic: 10* (Chase's translation). Plato puts into the mouth of *Socrates* (*Phædo VI.*) a simile which might admit of a like qualification.

a pass by charges hardly proved, that in the presence of his judges he had thrown himself on his sword.\* Æschylus had caused Ajax to kill himself off the stage; but Sophocles probably felt that a more dramatic ending could be borne by his audience, and would have a better effect on them.

To such a vain, fickle and restless democracy did Sophocles present the highest lessons of wisdom clothed in immortal verse. They might seem to be lost for the time, for his life, which had reached from the first great victory of Salamis almost to the final ruin of Athens, witnessed the development of that moral and social corruption, of which Aristophanes is the witness and the product. But some of his words bore good fruit, and are bearing it till this day; for we can recognise in the gentle reverence and tender piety of Plato the immediate influence of the great dramatist.

*The Religious Sentiment in Epileptics.* By JAMES C. HOWDEN, M.D., Medical Superintendent, Montrose Royal Lunatic Asylum.

(Read at a Quarterly Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, Edinburgh, Nov. 21st, 1872.)

In the following observations I propose to describe a feature in the mental condition of Epileptics, which, to the best of my knowledge, has not attracted that attention to which its frequency entitles it. I refer to the exaltation of the religious sentiment. Irritability, suspicion, impulsive violence, egotism, strong homicidal propensities are among the most commonly observed characteristics in the insane epileptic; but in strange contradiction with these we very frequently find combined a strong devotional feeling, manifesting itself, it may be, in simple piety or in decided religious delusions. I do not pretend that the forms of religious insanity to be afterwards noticed are peculiar to epilepsy, but they are very frequently found in connection with it, and, I believe, I have only to describe a few illustrative cases to bring to your recollection numerous others which have occurred in your own experience. The causes which combine to develop a devotional frame of mind in Epileptics are probably numer-

\* Plutarch (Nic. 6), quoted by Schöll (*Sophokles' Leben und Wirken*), who makes this suggestion, and quotes many similar cases.

ous. In congenital cases or those arising from diseases of childhood education no doubt exercises a powerful influence. The epileptic child is necessarily less able to join in the amusements and occupations of healthy children, and a large share of his time and attention may be devoted at home to religious instruction. The mysterious nature of the disease, the consciousness of infirmity and helplessness develops a craving for sympathy in the epileptic which we rarely see in other lunatics. In the wards and airing-courts of our asylums, epileptics may be distinguished from their fellow-patients by the fact that they are generally found associating in little groups of twos or threes. They sympathize with each other, lean on each other for help in the time of trouble, and however much they exhibit violence and viciousness to others, they rarely attack each other. Along with this desire for sympathy, the epileptic is mercifully endowed with strong hope. He is always getting over his trouble, he thinks the turns are less severe, and will tell you perhaps the day before a fatal seizure that he thinks he will have no more fits. We all know how much hope has helped the physician in his efforts to combat this disease with a whole battery of drugs, each of which in its turn seems for a time to promise success, only too surely to fail in the end. This craving for sympathy finds a deep response in the highest development of hope—religion; and the sufferings of this life are assuaged by the assurance of sympathy and aid from heaven, and of a blessed future where suffering and sorrow are no more.

Again, when religious emotion develops itself in delusions, another element of character comes into play. Vanity and egotism give shape and form to his dreams and fancies. When cut off by sleep or epileptic trance from communication with the outer world through the senses, the ever-waking mind operates on the stores which memory has hoarded, and works up those wonderful visions in which the most exaggerated egotism finds gratification in interviews with the Almighty, direct communications with the Saviour, or revelations as to the salvation of the human race.

I have selected a few cases from many, illustrative of the connection between epilepsy and religious emotion, beginning with what but for the bizarre co-existence of the most vicious qualities might be considered normal piety, and passing gradually to those exhibiting the most extravagant visions and religious delusions.

*Case of J. J.*—A strong, powerfully-built young man, æt. 27, takes epileptic fits at irregular intervals. Before the fits he is taciturn and ill-natured, and is at all times irritable and dangerous. He is a good workman, and in his saner intervals is fond of, and good at all athletic games.

During these intervals, though quarrelsome and vicious, he shows a strongly devotional frame of mind. He may be observed frequently reading his Bible, and evinces in his conversation what cannot but be considered for the time sincere repentance, as well as firm religious convictions. This man tells his story and explains his state of mind well in the following letter addressed to a clergyman:—

“Montrose Asylum,

21st February, 1871.

“REVEREND SIR,—Excuse me for troubling you with this few lines. You mentioned last night that the Sacrament of our Lord’s Supper was drawing nigh again, and as I have got the opportunity, I would be very glad to be a communicant in the Established Church of Scotland, as you know that the last time I took badly; but thank God for it, I feel better than what I was at that time, and with the help of Him who giveth us all help in time of need I will try and be a communicant with you at this time, and will try my best endeavour for to lead a better life than what I have led in times past; for to tell you the truth I attended church very irregular until this last two years back, not without the means of getting to the church, but was led astray as is common amongst young men on a Sunday living in a town in which I have been doing for nearly two years and a half in Leith, which is not one of the best places for a young man without friends to live in; and before that I was hired at several places on Deeside, near Aboyne; and before that I could hardly tell you myself, but first that I got my education in Sheriff Watson’s school, in Aberdeen, where I got my food and learning all day, and went home all night, because my parent was not fit to pay for my schooling, as my father was never married to my mother, who stopped in Arbroath, where I was born, but he is dead now, and for my mother, I could hardly tell you where she is, but just that she was at L—— mill six months ago seeking work, as she used to work there; but the mill was stopped at the time, and I heard that she went to Abroath\* and I never seen her, for she does not know anything of me being here, nor the trouble that I am afflicted with, as it is four years since I have seen her, and it is little more than three since it came on me, which has been God’s will to lay on, and will be either His will to keep on me or take off.

“I am,

“Your obedient servant,

“J. J.”

\* She is now in an Asylum.



So evidently sincere was he that I had no hesitation in recommending the clergyman to allow him to take the sacrament, which he did in the village church. Yet a few weeks afterwards he nearly killed a fellow patient—a poor demented creature—because he called him a Fenian, and his conduct continues to this day a singular jumble of piety and vice. He is, indeed, I believe, one of the most sincerely pious, as well as one of the most dangerous homicidal, lunatics in Scotland.

The next case is one which, though scarcely characterized by actual delusions, must be considered as exceeding the bounds of normal religious feeling.

*Case of J. I.*—An epileptic from childhood, weak-minded, and vain, was a handloom weaver, but owing to disease of the wrist joint has been unable to work for many years. He received a strictly religious education, and his father is a pious man. Except while walking or taking his meals, he reads the Bible almost constantly, and can repeat most of the Old Testament by rote. He is fond of praying aloud, and can deliver an extemporaneous discourse in a fair conventional style. He tries to convert the attendants and his fellow patients, chiefly by threatening them with God's judgments if they will not do what he (J. I.) tells them. He is fond of the terrors of the law, and tries to impress on his hearers that he is a messenger sent by God to warn his fellow men to believe and flee from the wrath to come, \* and wishes release from the Asylum that he may fulfil his mission in the conversion of sinners. He maintains that he is a holy and righteous man, and that he never commits sin, but in this, as in other matters, his word is not to be depended on. The following letter is characteristic of his frame of mind:—

“ March 20th, 1871.

“ DEAR FRIENDS,—I write you this letter to let you know that I am well; to God be all the praise from whom all my comforts flow, and I hope this will find you all the same. I hope and believe you will send my father and the inspector into this house for me on Friday or Saturday, the 24th or 25th of March month, and I hope, as you are my friend, you will send me one letter on Wednesday telling me when they will be here. So what my work has been every day is to have been reading at the Bible, which I like to make as the man of my counsel and as the rule of my life. I have no more to say,

“ But remains,

“ Yours affectionately,

“ J. I.”

\* He was placed in an Asylum on account of his over-officious missionary efforts in his native village.

The following extract from the case book refers to another illustrative example :—

*Case of C. C.*—Ætat 50 ; an epileptic. Is subject to *petit mal*, as well as fully developed convulsions. He had been much addicted to the use of stimulants, and says that the fits were brought on by drinking. He is a stout, corpulent man, and will not apply himself to any kind of work. He is of ordinary education and intelligence. He usually conducts himself quietly and decorously, but occasionally is very loquacious, and grumbles a good deal about his confinement and bad treatment. He frequently recites scraps of sermons and pieces of religious poetry, and is a most religious voluntary and dissenter, but he does not seem to have much Godliness about him. He is subject to attacks of excitement, when he is very troublesome and noisy. At these times he conducts divine service, reading, preaching, praying, and singing with great vehemence.

When actual religious delusions are present in epileptics, these are generally founded on visions occurring during a state of trance, but sometimes, as in the following case, the delusion continues after the memory of the vision on which it was founded has faded. The case is curious, not only from the nature of the delusions, but from the fact that the subject of them was a boy only 13 years old.

*J. A.*—A good-looking, intelligent boy, who, through an epileptic fit from infancy, has none of the physiognomic characteristics of the disease. His father died young, and his mother, who was also an epileptic, went to Canada with another man, taking her son with her. Some years afterwards the boy was sent home to Scotland, where he resided with his grandfather, who taught him to read the Bible, and learn its historical facts. During the lucid intervals he is active and intelligent, and works sometimes in the garden, sometimes in the tailor's shop.

After the fits he became excited, subject to delusions, and given to wander, and exhibits strong amorous propensities. On admission to the Asylum he spoke with an earnestness, and, granting his premises, an intelligence beyond his years. He told me he was Adam, the first man, born again into the world. When questioned as to his previous life in the Garden of Eden, he replied that he had been so long dead that he could not be expected to recall particulars, but added that it was perfectly true that he had eaten the forbidden fruit, and when asked why he had done so, he replied, "It's all very well to blame me, but you would just have done the same thing if you had been in my place." He pointed to a picture of a woman on the wall, which he said was the portrait of Eve. He says he has been in Heaven, and describes what he saw there.\* He has been in the Asylum now for two years. He

\* His description of Heaven is evidently drawn from the scenery of Canada.

takes fits every two or three weeks, and on recovering from them he is dull and stupid; then he becomes possessed of some extravagant delusions, always of a religious nature. Sometimes he returns to his old delusion that he is Adam, sometimes he is God, at other times Christ, and not unfrequently the Devil. When questioned as to the ground of his belief, he generally says that it has been revealed to him, and that he feels it is true, pointing with his finger to his epigastrium.

*Case of S. D.*—A female epileptic; during the lucid intervals is cheerful, good-tempered, and industrious. She is always religiously disposed, carries her Bible and Shorter Catechism constantly with her,\* prides herself on the number of chapters she will read in a day. The first symptoms of the approach of her malady is a change in temper. She becomes irritable and quarrelsome, noisy and violent, swears vehemently, and threatens suicide. At this stage she often tears the skin off her face in pure rage, and would, I have no doubt, cut her throat if she had an opportunity, or allow anyone to do it for her. During the following night she has a series of epileptic fits, and for some days is subject to *petit mal*. She is then excited, but good-humoured; she will tell you that she has seen her Heavenly Father, and that tomorrow she is to receive the Crown of Glory; she sees glorious visions in the sun, converses with Christ, and receives messages direct from Heaven. The interval between the fits is about a month, and so constant is the rotation of symptoms that you can tell to a day when she wants her throat cut, or when she is to receive the Crown of Glory.

*Case of J. A.*—Æt 32. Epileptic from birth; said to have been insane for 18 months, has threatened the life of his relations, and is always dangerous when excited. Before the fits he complains of blood rushing to his head. The fits are not regular in their occurrence, but generally come on about once a month, and are preceded by an aura in the region of the stomach. He gets very excited, and labours under some religious delusion, such as that he is in Heaven, or that he is struggling with the Devil, whom, in the end, he generally vanquishes. One night I was sent for to see him in a fearful state of hysterical excitement. His yells might have been heard a mile off. He was rolling on the floor, tearing his clothes, and struggled violently with anyone who approached him. On asking what he meant by acting in that way, the answer I got in a roar was that God was in his belly, that he would dwell there for ever, and that he would make him the means of converting sinners, &c. A free administration of cold water dashed over the head and chest had speedily the effect of restoring him to his senses.

In illustration of the more exaggerated form of religious delusion, I will quote two cases of unusual interest, in which visions of a kind exactly resembling such as are supposed to have been witnessed by many religious enthusiasts manifested

\* A very general practise with epileptics.

themselves. The first was a patient in the asylum, the other was a man who neither before nor since showed symptoms of insanity, and the vision he had took the place of a fit (*epilepsie larvée*). Both were equally convinced of the reality of what they had seen, believing that the soul had been for the time removed from the body, and had been transported to the land of spirits.

The first case is the more interesting, because the visions are described by the patient himself.

*Case of D. C.*—Æt. 66, a shoemaker from Caithness. The medical certificate in the schedule for his admission states that—"He labours under several delusions, but the one he seems most active about is his commission to kill the devil." On being questioned as to the killing of the devil, he said that a certain night he had a vision, when he thought he was in a place with the Great Beast, and that a prize was offered to anyone who would kill it. He was accompanied to the enterprise by his brother and another lad. To these he gave the swords of Jonathan and Saul, and he armed himself with the two stones with which David slew the giant Goliath. He then said, "In the name of the Father, Son, and Holy Spirit, I'll cut off your head," which he did, and then cut the beast through the middle, after which all the bells rang with triumph. He was then asked if he could go through the fiery furnace of Shadrach, Meshech, and Abednego, and he went through it.

This vision occurred before he came to the Asylum, and he firmly believed in its reality. He had delusions of suspicion, but on other subjects spoke rationally and intelligently. He had no fits for a year after admission. He worked at his trade, and was most zealous in reading the Scriptures, and exhorting his fellow-patients and the attendants on spiritual matters. The next vision he had was after or during a fit, and is well described in a letter to his wife:—

I went out to the shop to work the day after the doctor told me, and on my coming into the house where the shoes are left and our slippers put on, one of the men, a keeper, said, 'What are you doing here?' I replied that I was not doing any harm. He then knocked me down,\* and kicked me with his foot so severely that I fainted. I thought during the time that I was getting kicked, a man asked me if I would like to go through hell for God's cause. I then said I would, if the Son of God was in company. I then found my memory return. I saw nothing more then but quarrelling and fighting, &c. I then thought a person said, 'Would you undertake to go through the flames that Shadrach, Meshech, and Abednego went through?' I then thought that I was caught up by the hair of my head, and brought through the air to a beautiful country,

\* He fell in an epileptic fit.

which was surrounded by beautiful green grass parks, and those parks were full of young lambs, and lo! and behold I saw them, I also saw a woman in their company,—on the opposite side of her there were people throwing things in the scale. On the opposite side an old woman came with a stick into her hand, and she took a skin (wool) into her hand from underneath her arm, and threw it into the scale before mentioned, and then she went up (the scale). I then asked the person supposed to be in my company, where was God. His reply was in Heaven. I then said this was Heaven. He then said that this was only a kitchen to Heaven, and none can enter into Heaven but those that are pure and perfect. He, the visionary man, said that this was the place that saints were made perfect in. He then told me the number that had entered since our Saviour went there. I said that surely some of our great ministers was ready to go there, and he said that there were only five between Inverness and Montrose, and those five I saw. I know one of them to be the Rev. J—— K——, Free Church minister of the parish of D——. On my coming out of the trance, I asked the man what was the reason he did not kill me right off hand. I have killed five already, and I do not wish to kill the sixth. After the time that I went to work at the shoes, I went out to take a walk along with my fellow-workman. I saw a pole and a board upon it with writing on it (thus). “There is no road this way but to the Asylum,” and then I thought that was a place that they killed the beast at. I had a Gaelic Bible in my pocket at the time I saw the pole. I took the Bible out of my pocket and sat down on the wayside where we were taking a walk, and opened it in the fourth chapter of St. Lucas, and read therefrom the account of where our Saviour came to be baptised with John, &c., and when I was done reading the above portion of Scripture I was at once restored to myself.

No more from your loving husband, D. C.

*Case of A. C.*—Æt. 47; a strong, healthy man. He is an excellent and intelligent workman. He is of a sanguine and excitable temperament, given to boasting when talking of himself or his doings, especially if he has been taking drink. His first wife, by whom he had eight children, one of whom was an idiot, with congenital double cataract, died about three years ago. During her lifetime he was not temperate in his habits. He was not an habitual drunkard, but was liable to exceed when he began to drink. He was extravagant in his habits, given to be quarrelsome and riotous when under the influence of drink, but withal made strong religious professions, and, like many of his countrymen, though he was drunk on Saturday night he would be next day sitting demurely in his pew in church. On the occasion of his wife's death, he seemed affected, but within a month he was paying attentions to several domestic servants, one of whom he afterwards married. Two months after his wife's death I was called to see him during the night. I found him just recovering from

a severe epileptic fit; he had bitten his tongue severely, and bruised his face and head. Next morning he had two slighter fits, but on the following day he was able to go to work. I ascertained that for two days before his illness he had been drinking heavily. After this he continued to have epileptic seizures about once a month; he was treated with Bromide of Potassium, which seemed to have the effect of diminishing the severity of the fits. He married a second time nine months after his first wife's death. He now declared that he had altogether given up drinking, and though I am disposed to doubt the strict accuracy of this statement, I had no actual knowledge of his being the worse for drink since his first illness. His second marriage took place on the 3rd of May. He had a fit on the 24th of April previous; he had no fit again till 8th August, then he had one on 26th September. Early on the morning of the 19th October I was sent for. His wife stated that he had started out of his sleep in a very excited state, declared that he was dying, and that he would soon be in Heaven. I found him bathed in a profuse perspiration, pulse feeble, pupils somewhat irregular. He knew me quite well, but spoke somewhat incoherently. At one time he would say that he was in Heaven; again he would complain of great weakness, and say that he was dying; always, however, his conversation was of a religious character. Next day he was sure he was dead, and that his soul was in Heaven, and in perfect happiness. He continued in this belief for two days, but on the third day he believed soul and body were again united in this world. In a few days he was able to be at his work again, and spoke quite rationally on every subject but that of his vision. He maintained that God had sent it to him as a means of conversion, that he was now a new man, and had never known before what true peace was. He still believed that his soul had been transported to Heaven. It was a glorious country, abounding with the most beautiful trees, shrubs, and flowers, the trees were loaded with the most luscious fruit, and the fields waved with the most luxuriant crops.\* Everything grew spontaneously, the ground needed neither digging nor tilling, nor the crops sowing, and the trees needed no pruning. He assured me he was a converted man, and that he was convinced he would have no more fits. I advised him to put more trust in his own efforts to obey God's natural laws than in any supernatural intervention from above, but he repeated his belief in the miraculous effect of his illness.

A month after (17th November), he had a distinct epileptic fit. Up to the present time he continues to have fits about once a month. Immediately before the fits come on he feels a bad smell as if of a foul breath; this smell he was not sensible of on the occasion of his vision. He has had no return of the visions or any other symptoms of insanity.

A consideration of these and such like cases naturally

\* He was a gardener.

suggests the enquiry as to how far epilepsy has had to do with the origin of certain religious creeds, and how far the visions of many so-called religious impostors may have had an epileptic origin.

In pursuing this enquiry, a difficulty meets us at the outset—the difficulty of ascertaining the truth. Biographers, as a rule, are too much occupied with the psychical and religious aspects of the question to notice peculiarities in the physical constitution of their subjects. Allegations of madness are, however, very frequent, and though it is not stated, one cannot help suspecting, from the nature of the insanity, that in many instances it was of an epileptic origin.\*

There is, however, evidence that many religious fanatics were epileptics or cataleptics. Hecker, describing the dancing mania of the fourteenth century, says, “While dancing, they neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits, whose names they shrieked out.” . . . . . “Others during the paroxysm saw the heavens open, and the Saviour enthroned with the Virgin Mary, according as the religious notions of the age were strangely and variously reflected in their imaginations. Where the disease was completely developed the attack commenced with epileptic convulsions. Those affected fell to the ground senseless, panting and labouring for breath. They foamed at the mouth, and suddenly springing up, began their dance amid strange contortions.” †

Ann Lee, the mother of the Shakers, is described as “a wild creature from birth, a prey to hysteria and convulsions, violent in her conduct, ambitious of notice, and devoured by the lust of power.” While in the prison at Manchester a light shone upon her, and the Lord Jesus stood before her in the cell, and became one with her in form and spirit. ‡ Another writer says: “A combination of bodily disease—perhaps catalepsy—and religious excitement appears to have produced in her the most distressing consequences. During the spasms and convulsions into which she occasionally was thrown, her person was dreadfully distorted, and she would

\* Many insane fanatics are referred to in a curious old book entitled “ΠΑΝΣΕΒΕΙΑ; or, A View of all Religions in the World, with the several Church Governments, from the creation to these times. Also a discovery of all known Heresies, in all ages and places, and choice observations and reflections on the whole,” by Alexander Ross. 1672.

† “Epidemics of the Middle Ages,” Trans. Babington, p. 81.

‡ “Hepworth Dixon’s New America,” vol ii., p. 115.

clench her hands until the blood oozed through the pores of her skin. She continued so long in these fits that her flesh and strength wasted away, and she required to be fed, and was nursed like an infant."\*

Was the insanity of Emanuel Swedenborg accompanied by or dependent on epilepsy? Dr. Maudsley, in reviewing "White's Life of Swedenborg,"† says: "A notable peculiarity which distinguished him in his early years, and made him unlike other children, was a power of almost suspending his breathing; when deeply absorbed in prayer he hardly seemed to breathe at all. Another remarkable characteristic of the wonderful child! On it he subsequently founded important theories concerning respiration, and his disciples look upon it as connected with the power which he claimed to have of entering the spirit world while still in the flesh. A more common-place explanation, however, may easily suggest itself. Physicians who are accustomed to be consulted about children of nervous disposition predisposed to epilepsy or insanity, will call to mind instances in which the little beings have fallen into trances or ecstasies and spoken in voices seemingly not their own. On the one hand, these seizures pass by intermediate steps into attacks of chorea, and on the other hand they may alternate with true epileptic fits, or pass gradually into them." The visions of Swedenborg were much like those we meet with in epilepsy. On one occasion, he says: "I was astonished, having all my wits about me, and being perfectly conscious. The darkness attained its height, and then passed away. I now saw a man sitting in the corner of the chamber. As I thought myself entirely alone, I was much frightened when he said to me, 'Eat not so much.' My sight again became dim, but when I recovered I found myself alone in the room." Or again: "I was this time not at all alarmed. The man said, 'I am God, the Lord, the Creator and Redeemer of the world. I have chosen thee to unfold to men the scriptural sense of the Holy Scripture. I will dictate to thee what thou shalt write,' &c., &c."

The following would describe an epileptic seizure—"I went to bed . . . Half an hour after I heard a trembling noise under my head. I thought it was the Tempter going away. Immediately a violent trembling

\* W. and R. Chambers' "Miscellany of Useful and Entertaining Tracts," Art. Religious Impostors.

† "Journal of Mental Science" for 1869, p. 175.



came over me from head to foot with a great noise. This happened several times. I felt something holy over me. I then fell asleep, and about twelve, one, or two o'clock, the trembling and noise were repeated indescribably. I was prostrate on my face, and at that moment I became wide awake, and perceived that I was thrown down, and wondered what was the meaning. I spoke as if awake, but felt that these words were put into my mouth." Then follows an imaginary interview with the Son of God.

Very similar to these were the visions of John Engelerrecht, who, after passing many years in a state of most gloomy and agonising desperation, in which he had frequently been tempted to commit suicide, appeared at length to his friends and to himself to die, and to be restored again to life; and fancied he had visited, during the short space from his supposed death to his resuscitation, first hell, and afterwards heaven, and was from that time freed from his despondency, which he had exchanged for the opposite emotions of religious joy.

Now this pretended death seems to have been in reality no other than what Sauvages and other nosological and pathological writers term an *Asphyxia*, or a total privation of external sense and of all the vital motions; and was of an exceedingly short duration; for he himself tells us that the whole process was but of a moment's continuance, that it was much about twelve o'clock at midnight when his bodily hearing failed and left him, and that when the watchman cried twelve o'clock the ecstatic rapture had fully passed from him.

But a short view of the symptoms of this curious disorder, as described by himself, in their gradual advancement and decline, will sufficiently explain its nature.

"It was on Thursday noon, about twelve o'clock, when I distinctly perceived that death was making his approaches upon me from the lower parts upwards; insomuch that my whole body becoming stiff, I had no more feeling left in my hands and feet, neither in any other part of my whole body. Nor was I at last able to speak or see; for my mouth now becoming very stiff, I was no longer able to open it, nor did I feel it any longer. My eyes now broke in my head in such a manner that I distinctly felt it. But for all that, I understood what was said when they were praying by me;—and I heard distinctly that they said one to another, 'Pray feel his legs; how stiff and cold they are become—it will now be soon over with him.' This I heard distinctly, but had no

perception of their touch. And when the watchman cried eleven o'clock at midnight, I heard that, too, distinctly; and much about twelve o'clock at midnight the bodily hearing failed and left me too. Then was I (as it seemed to me) taken up with my whole body; and it was transported and carried away with far more swiftness than any arrow can fly, when discharged from a cross-bow." He then, after some observations, relates what he saw, and heard, in the other world; and afterwards describing his return to life, and telling us that he was twelve hours in dying, and the same space in recovering, he thus proceeds:—"Remarkable it is, that as I died from beneath upwards, so I revived again the contrary way, from above to beneath, or from top to toe. Being now conveyed back again out of the splendourous glory, it seemed to me as if I had been replaced with my whole body upon the same spot; and then I first began to hear again, corporally, something of what they were praying in the same room with me. Thus was my hearing the first of all the senses I recovered again. After this I began to have a perception of my eyes, so that little by little my whole body became gradually strong and sprightly. And no sooner did I get a feeling of my legs and feet again, but I rose and stood up upon them with a strength and firmness I never had enjoyed before through the whole course of my life. The heavenly joy invigorated me to such a degree that the people were greatly terrified at it, seeing that in so rapid and almost instantaneous a manner I had recovered my strength again to such great advantage."

During this supposed and apparent death he had been carried in imagination, or, as he terms it, in a trance or vision, and set down before hell, where he had perceived a dismal darkness, a thick, nasty fog, smoke, and vapour, and a horrible nasty stench, and had heard dreadful howlings and lamentations; had from thence been conveyed by the Holy Ghost, in a chariot of gold, into the radiant and splendourous light of the Divine glory, where he had seen the choir of holy angels, prophets, and apostles, singing and playing round the throne of God, the angels in the form of flames of fire, and the souls of believers in the shape of luminous sparks, and God's throne under the appearance of a great splendour; had received a charge or message from God by means of an holy angel; had had such assurances of divine favour, and felt such delight from this momentary glimpse of the glory of God, that he was ever after a happy enthusiast, and the joy he retained from

this splendid spectacle was so very great and unspeakable in his heart as to surpass all kind of description.

After this he had for several years frequent visions and revelations, sometimes in the day time, and with his eyes open, and always without any of those symptoms of disorder which had preceded his first vision; lived sometimes, as he assures us, for eight, twelve, and thirteen days, and even for three weeks together, without eating and drinking; for the space of three-quarters of a year without the least wink of sleep; and once heard with his bodily ears, for one and forty nights together, the holy angels singing and playing on the heavenly music, so that he could not help joining them; and the people who were with him were so much affected with joy as to be unable to sleep likewise, and often continued singing along with him almost the whole night through.\*

There is strong evidence that Mahomed was an epileptic, and that, though a man of undoubted power and strong religious feeling, he founded his pretensions as a medium of revelation on visions which appeared to him during epileptic trances. Washington Irving, in his "Life of Mahomet," says—

"Dr. Gustav Weil, in a note to *Mahomed der Prophet*, discusses the question of Mahomet's being subject to attacks of epilepsy; which has generally been represented as a slander of his enemies and of Christian writers. It appears, however, to have been asserted by some of the oldest Moslem biographers, and given on the authority of persons about him. He would be seized, they said, with violent trembling, followed by a kind of swoon, or rather convulsion, during which perspiration would stream from his forehead in the coldest weather; he would lie with his eyes closed, foaming at the mouth and bellowing like a young camel. Ayesha, one of his wives, and Zeid, one of his disciples, are among the persons cited as testifying to that effect. They considered him at such times as under the influence of a revelation. He had such attacks, however, in Mecca, before the Koran was revealed to him. Cadijah feared that he was possessed by evil spirits, and would have called in the aid of a conjurer to exorcise them, but he forbade her. He did not like that any one should see him during these paroxysms. His visions, however, were not always preceded by such attacks. Hareth Ibn Haschem, it is said, once asked him in what manner the

\* "Observations on the Nature, Kinds, Causes, and Prevention of Insanity," by Thomas Arnold, M.D., 2nd Ed., pp. 229-233.

revelations were made. 'Often,' replied he, 'the Angel appears to me in a human form and speaks to me. Sometimes I hear sounds like the tinkling of a bell, but see nothing. (A ringing in the ears is a symptom of epilepsy.) When the invisible Angel has departed, I am possessed of what he has revealed.' Some of the revelations he professed to receive direct from God, others in dreams; for the dreams of Prophets, he used to say, are revelations."

Bayle says (Dict. Hist. art. Mahomet) that he was subject to the *mal caduc* (epilepsy) and that he tried to make his wife Cadijah believe "that he only fell into convulsions because he could not sustain the glory of the appearance of the Angel" Gabriel, who came to announce many things from God concerning religion.

The following passage is quoted by Moreau (de Tours) from "Gisbert Voctins":—

"Non video cur hoc negandum sit (epilepsiæ et maniacis deliriis aut enthusiasmis diabolicis Mahommedi ad fuisse energema) si vitam et actiones ejus intueamur."

"I do not see how it can be denied (that the fanaticism of Mahomet arose from the maniacal delirium or diabolic enthusiasm of epilepsy) if we look carefully into his life and actions."\* The inhabitants of Mecca considered him to be a madman and possessed, and his wife thought he was a fanatic deceived by the artifices of a demon.

"By his ecstatic visions (says Moreau), had he not become the dupe of his visions, whence sprung the first idea of his divine mission, and then had not these visions become the principal, if not the sole basis of his apostolic works, as well as the source of his audacity, and of his prophetic power over the ignorant and superstitious spirit of his countrymen?" †

It seems incredible that a religion which sways the minds of 200,000,000 of the human race at the present day should have no better foundation than the visions and dreams of an epileptic.

Religious systems, must not, however, be judged of by the ordinary laws of reason; they must be estimated rather by their influence for good or evil on men's lives and on society.

The imagination may, when unfettered, during a state of trance, work upon what was during consciousness a constant theme of reflection, and elaborate therefrom ideas and

\* "Life of Mahomet," by Washington Irving, page 30.

† *Psychologie Morbide*, par Le Dr. J. Moreau (de Tours), p. 552.

theories pregnant with many moral truths, and though vanity has no doubt influenced the actions of most of the so-called religious impostors, it has taken the direction of attempts to benefit their fellow men, and to satisfy that craving which seems instinctive in the human mind to lean for aid and sympathy on something stronger and better than itself, to connect the present life with an eternal state of existence, and to attain a high standard of moral perfection.

Imperfect though the doctrines of such men as Swedenborg and Mahomet may be, they attempted, and to a certain extent have succeeded, in satisfying those yearnings in many human beings, whom they have made, if not better, at least more satisfied with life than if left to the unbridled guidance of their own passions and impulses.

A millennium of reason may be in store for the human race, but the day is yet far distant; and we cannot afford at present to sneer at the credulity of our fellow men, when in the latter half of the nineteenth century we hear of a learned Bishop consecrating a cave where Bernadotte Soubarons, a girl of 14, saw the Virgin Mary, and read of thousands of pilgrims flocking to this sacred grotto in the year 1872 to worship with the most earnest convictions.

Need we wonder that the ignorant Arabs, 1300 years ago, living—as far as a knowledge of nature's laws was concerned—in a state of heathen darkness, should have been attracted to the moslem faith, which, while it held out bright hopes for a future life, consorted well with their inclinations in the present.

The mere act of believing is to most men a source of happiness, and the happiness appears sometimes to be in the inverse ratio to the credibility of the thing believed in, as Moreau (de Tours), says—“Ils croient, mais pour croire, en tout état de cause, ils faut d'abord qu'ils ne comprennent pas.”

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*Lunacy Legislation in New Zealand.* By W. LAUDER LINDSAY, M.D., F.R.S.E., Physician to the Murray Royal Institution (for the Insane), Perth.

Some months ago, in an article on "Colonial Lunacy Boards," [in the number of the "Edinburgh Medical Journal" for March, 1872,] I had occasion to announce that the New Zealand Government had put upon paper certain "Resolutions"<sup>1</sup> regarding *Lunacy-Reform* in the Colony, including a proposal forthwith to appoint at least one *Commissioner in Lunacy*, who should act as adviser to Government in all Lunacy matters, as well as supervise all the Lunatic Asylums of the Colony. I expressed a fear that the intentions apparently embodied in the said resolutions were "too good news to be true," and that they would prove but formal suggestions—to be laid upon the table of the House of Assembly, there to remain [shelved] for an indefinite period, just as similar proposals for Lunacy Reform have been treated in the sister colony of New South Wales. Unfortunately for the insane, and for the Lunatic Hospitals, of New Zealand, my surmises have proved to be only too correct—my fears only too well founded. By the August mail (1872) I received two letters from the Honourable Dr. Buchanan, of Dunedin, Member of the Legislative Council, and mover of the Parliamentary Resolutions above referred to.<sup>2</sup> That the proposals which these resolutions contained, have not yet been adopted, is certainly no fault of *his*; for of *his* hearty interest and honest intention in the matter there can be no question. In his letters he gives the following most unsatisfactory account of the present state of affairs in New Zealand in regard to Lunacy Progress or Reform—a

<sup>1</sup> They are prefixed to a "Report of the Joint Committee upon Lunatic Asylums," said Committee consisting of 15 members of both Houses of Assembly; printed by order of the Legislative Council in October, 1871; for a copy whereof I am indebted to the courtesy of the Honble. Dr. Buchanan, chairman of the Committee.

<sup>2</sup> I received, also, by the same mail—owing to the kind attention of my friend, John Hislop, Esq., Inspector of Schools for the Province of Otago—a copy of the "Parliamentary Debates" of 1871 (No. 5, dated September 18th), containing the discussion of September 7th, on the "Colonial Lunatic Asylum." And subsequently "Reports on Lunatic Asylums in New Zealand, presented to both Houses of the General Assembly, by command of His Excellency," in 1871, have come to hand.

state of affairs which I quite agree with him in considering discreditable and disgraceful to its reputation as a British Colony!

“You are quite right,” says he, in remarking that ‘the intention of the Governor—then Sir George Grey—was obviously more liberal 25 years ago than is that of the Government of the present day, inasmuch as *he* contemplated, even in the infancy of the Colony, the possibility, at least, of requiring *more than one* Visitor of the Colonial Lunatic Asylums.’ But you are mistaken if you suppose that the present Government here is at all desirous, or has any intention whatever, of endeavouring to secure the services of even *one* duly qualified medical officer to supervise *all* our asylums! Whilst the Colony is spending some £40,000 a-year in postal subsidies, and several millions on public works and immigration, I am ashamed, as a colonist, to say that the Government refused a paltry £1200 or £1500 to provide for the medical officer recommended in the 3rd resolution<sup>3</sup> of the Report of the Joint Committee of both Houses last Session—although the Report was passed unanimously; and although frightful cases of cruelty and ignorance were brought to light in the evidence taken by the Committee in one, at least, of these Institutions” [Lunatic Asylums].

“By dint of a great deal of pressure brought to bear on the provincial authorities, by exposing these abuses, this much only was gained at the end of the meeting of our Parliament—that a sum of £5000<sup>4</sup> was voted to build a new asylum, on a new and better site, at Wellington, instead of ‘the miserable, small, wooden hovel’ (as Major Blewitt correctly described it to you) at Karori. Karori has been for many years ‘the skeleton in the closet’ of Wellington; and all concerned seem to have endeavoured to keep the door of it closed! It is only within a few weeks, and after the close of the Session of the Assembly, that, some of the servants of the Institution having quarrelled, the Government appointed a Commission of Inquiry; when facts came to light as to the cruel treatment of some of the patients by the

<sup>3</sup> To wit: “That a duly qualified medical officer from the United Kingdom, having special knowledge and experience in the treatment of the insane, be forthwith engaged and appointed, and who shall have the supervision and control of all the Lunatic Asylums in the Colony.”

<sup>4</sup> The paltriness of this sum, for the construction of a model asylum in the parliamentary capital of New Zealand, may be judged of by the fact that the new asylum for the Province of Auckland, erected in 1865 at the Whau, near the city of Auckland, cost upwards of £18,000.

keeper and his wife—who had had charge of the asylum for 13 years—which resulted in their dismissal. These facts will strengthen my hand in the course I intend to continue to take, with the view of having one Inspector at least appointed for the Colony, entrusted with large powers. Had such an officer had the necessary control sooner, such scandals, which are a blot on our humanity, could scarcely have occurred.”

“Unfortunately, I fear, there are not half-a-dozen members of the Assembly who have it earnestly at heart to get these abuses remedied; hence the apathy of the Government. We are willing enough to ‘go in’ for reproductive Public Works. But, of course, the care of the Insane costs money, and does not ‘pay.’ I fear that, before anything like justice can be done to these unfortunate creatures, who cannot speak for themselves, public opinion will have to be appealed to through the press. This I reserve as a *dernier resort*.”

“To show the little interest taken in this matter by our public men, I may mention that the Joint Committee appointed last session by the Assembly consisted of fifteen members. At one of our meetings it was agreed that the committee should visit Karori in a body. But when the day and hour arrived, the only member who kept the appointment was myself, and I alone made the visit!”

Very properly, under these circumstances, does Dr. Buchanan announce his intention of “continuing to press on the Colonial Government, during the coming session of the General Assembly, the absolute necessity of doing something to improve the management of our Asylums for the Insane.” Alluding to books treating of the proper management of the Insane, and of the construction and organisation, on modern principles, of Lunatic Asylums—as desirable additions to the library of the House of Assembly, he adds—“We have no works of the kind in that Institution, although there is no topic on which both the general public and also ‘honourable members’ more need enlightening.”

In a letter published in the “Otago Daily Times,” of June 27th, 1872, Dr. Buchanan thus further expresses himself on the same subject—pointing out to begin with that “what is merely the recommendation of a committee,” I mistake “for a decision of the Executive”—[*quoad* the appointment of a Lunacy Commissioner]. “Unhappily this is not the case. On the contrary, during the late Session, the Government persistently declined to consider the proposition. In spite of the evidence and other documents attached to the report, the



recommendations of which are most moderate and practical, ministers have hitherto, as far as I am aware, taken no steps whatever to give effect to the wishes of the committee by securing the services of a properly educated medical man as Inspector-General of our Asylums. It is quite clear that, in times past, in the absence of such an official, abuses and cruelty have occurred. Such an officer would encourage and strengthen the hands of those who so ably and zealously carry on the management of some of our Institutions" (for the insane); "while, on the other hand, he would detect, and expose, and reform mal-administration in others. . . . On looking again over this report, I find some of the evidence so painful and disgusting that I confess I have not the courage to quote it. Besides, I hope that, after the disclosures which have been made before the commission appointed at Wellington, during the recess, to enquire into certain charges of cruelty at Karori, the Government will by this time have seen fit to reconsider their decision as regards this question. . . . We have the laudable ambition of desiring to hold a front rank among British Colonies . . . . Yet we refuse to devote a pitiful £1000 or £1500 to help our unfortunate fellow-creatures, who are too weak to make their wants and their sufferings known. . . . How shall we be regarded" (at home) "when the whole truth shall have been made known? . . . . We shall be looked at with pity and contempt by the whole civilised world, even although all our enterprises for securing material prosperity should succeed beyond our most sanguine expectations!"

Sad, however, as is the apathy exhibited—in the foregoing picture—by the New Zealand Government and Public, as to the treatment of the insane, it would be an act of injustice to that Colony to let it be supposed that such a state of affairs is peculiar to *it*. So far from this being the case—though the statement of such a fact ought to furnish but a sorry kind of comfort or consolation to the New Zealand colonists—it must be confessed that a similar condition of matters either has at one time existed, or does now exist, not only in all the British Colonies, but in Britain itself, and, indeed, in every country in the world, however civilised and reputedly humane and generous its inhabitants. The treatment of the insane—either by commission or by omission—by deliberate cruelty, or by apathetic neglect—has, in certain states of society and stages of civilisation, in all parts of the world, furnished only one illustration of "man's

inhumanity to man." Colonial Legislators in particular—in the early years of the growth of newly settled communities, when what are called reproductive, and what are really purely selfish, though not the less necessary, works, absorb all the attention of the Law-makers—are too apt to be actuated by what may be termed the Prussic Acid Policy. They regard the insane as a public nuisance, and not only think, but sometimes do not hesitate to say—that the best means of dealing with them would be to rid society of their burden by poisoning them at once with prussic acid!<sup>5</sup>

In the neighbouring Colony of New South Wales repeated rumours have found their way into the public mind, through the Sydney newspapers, affecting the reputation of the large State Asylum at Tarban Creek (now known as Gladesville) near Sydney. A resultant Government Investigation took place so long ago as 1855—and since that date—in other words for a long series of years—there has existed among the public of the Colony in question, and especially of the City of Sydney, a feeling of suspicion and dissatisfaction; while Government is obviously even yet reluctant to grant the outlay necessary for reorganisation, on a proper scale and basis, of the chief Lunatic Hospital of the Colony; for we learn from the last Report that has come to hand of the Hospital for the Insane at Gladesville [for the year 1870] that Dr. Manning, its physician, and the other authorities of that Institution and of the Lunatic Asylum at Paramatta, are still unsuccessfully pressing on the attention of an apathetic and parsimonious Government the necessity of reforming the arrangements for the management of the Colonial Insane.<sup>6</sup> Public apathy and Government parsimony, in connection with the treatment of the insane, are more conspicuous in New South Wales than in New Zealand, simply on account of, and in proportion to, the greater size of its existing State Asylums, the much greater age of the Colony, and the substantial appearances of

<sup>5</sup> *Vide* the author's "Suggestions for the proper Supervision of the Insane, and of Lunatic Asylums, in the British Colonies." "British and Foreign Medico-Chirurgical Review," Oct. 1869, p. 493. Foot Note. This, however, is no worse, if no better, than the policy, favoured by the white settlers of certain of the American States, of *Strychnining* their troublesome neighbours—the Red Indians!

<sup>6</sup> *Vide* Appendix B of said Report (p. 27) which consists of Memoranda on "the accommodation for the Insane in the Colony of New South Wales, submitted to the Honourable the Colonial Secretary on July 23rd, 1870, by a Deputation consisting of the Visitors and Medical Officers of Asylums."

a high state of civilisation in its capital city, Sydney.<sup>7</sup> The New Zealand Legislator, who, in order to the organisation, on a sound basis and a proper scale, of a Colonial Lunacy system, is studying the procedure of other countries, probably will not find such a remarkable series of illustrations of the evils and absurdities of Government red-tapeism as are contained in the voluminous "Minutes of Evidence," on which was founded the report of the Sydney Commission of Inquiry of 1855. That report, by Commissioners appointed by the Government itself, contained a number of excellent suggestions; which, however, have not as yet been acted on. A new series of rumours<sup>8</sup> only gave rise to another "report," (this time by Dr. Manning,) in 1868;<sup>9</sup> but, though that gentleman has superseded the veteran Dr. Campbell in the management of Gladesville, Government has not apparently furnished him with the means, or the authority, to carry out the reforms that have so long been obviously required. One would think it unnecessary to criticise the state of matters in New South Wales, revealed by the "Minutes of Evidence" above mentioned; because the evils complained of are apparently fully recognised both by Government and Colonists, and the necessity for their reform unanimously admitted. But the singular fact remains that no adequate action has been taken for a quarter of a century. Nor is there even yet any immediate prospect of the execution of the much needed reforms.<sup>10</sup> Instead, however, of taking comfort from so discreditable a state of matters in her sister Colony, instead of imitating the evil example of her elders or neighbours, it should be the aim of New Zealand to do, and that promptly, what is shown by competent authority or evidence to be *right for the proper treatment of her Insane*.

<sup>7</sup> New South Wales was colonised in 1788; while it was 1840 before Auckland, and 1848 before Otago, New Zealand, were settled.

<sup>8</sup> In 1863 the Rev. Dr. Willson, Roman Catholic Bishop of Hobartown, Tasmania, addressed a letter to the Colonial Secretary of New South Wales, pointing out the gross defects of the Tarban Creek Asylum, and making suggestions for the construction and organisation of a new State Asylum.

"Report on Lunatic Asylums," by Fred. N. Manning, M.D.: Sydney, 1868.

<sup>10</sup> A state of things similar to what still exists in some parts at least of New Zealand, and to what has existed, if it does not still exist, in New South Wales, occurred in the Province of Victoria, Australia, as regards its State Asylum at Yarra Bend, and its Gaols, prior to 1862, when a Government Investigation took place, and was *in due time followed by the desirable Reforms*. (Vide article by Dr. Keene, in the "Australasian Medical and Surgical Review," for October, 1862.)

In order that I may assist in pointing out what is, in present circumstances, right or proper for the New Zealand Government to do—that I may contribute to strengthen the position of the few Legislators, who, with Dr. Buchanan, may be disposed to press for proper attention, on the part of the Colonial Government, to the provision necessary for the humane treatment of all classes of the Colonial Insane—I venture to offer some remarks; (1) on the present state of Lunacy Legislation—of the Laws affecting Insanity and the Insane—in New Zealand; and (2) on the Reforms—additions or modifications—that appear necessary or desirable to adapt them to the requirements of the Colony in the present stage of its progress.<sup>11</sup>

At the time of my own visit to New Zealand in 1861-2, the Lunacy Acts in operation were the two following, known respectively as the “Lunatics’ Ordinance” of 1846, and the “Lunatics’ Ordinance Amendment Act” of 1858. I quote them here *ad longum*<sup>12</sup>—(1) As a necessary basis for criticism or remark: (2) Because they are short and simple compared with the Lunacy Statutes of Scotland, England, or Ireland: (3) While they afford fair illustrations of British Colonial Lunacy Laws at an early stage in the history of the colonisation of a new country.

*I.—Lunatics’ Ordinance. Passed the 18th day of November, 1846, in the Tenth Year of the Reign of Her Majesty Queen Victoria. Session VII. No. XXI.*

“*Analysis.*”

“Title.

“Preamble.

“1.—Dangerous Lunatics may be apprehended and kept in custody,

“2.—But may have access to their friends,

“3.—And may be placed in a Lunatic Asylum,

“4.—Until they shall recover.

“5.—Persons in Prison and being insane may be removed to an Asylum.

“6.—Persons acquitted on ground of Insanity may be kept in custody.

“7.—Persons proved not to be insane to be liberated.

<sup>11</sup> The reader may also consult the Paper (already quoted) in the “British and Foreign Medico-Chirurgical Review” for October, 1869.

<sup>12</sup> The copy of the Act of 1846 I owe to the kindness of Jas. H. Crawford, Esq., Solicitor, Auckland, New Zealand, who wrote it out for me in April, 1862; while the Statute of 1858 was one of a series of printed Government documents with which I was favoured in February, 1862, by His Honour, John Williamson, Superintendent of the Province of Auckland.

“ 8.—Visitors of Lunatic Asylums may be appointed.

“ 9.—Persons insane, but not dangerously so, may be placed in a Lunatic Asylum.

“ 10.—Costs of Maintenance to be defrayed by the Colony.

“ 11.—Relations, &c., of Lunatic may pay such costs out of his Estate.

“ 12.—Limitation of Actions.

“ 13.—Who are to be deemed Legally-qualified Medical Practitioners.

“ 14.—Writ of *de lunatico inquirendo* may be issued in certain cases.

“ 15.—Interpretation.

“ An Ordinance to make provision for the safe custody of, and prevention of Offences by, Persons dangerously insane; and for the care and maintenance of Persons of Unsound Mind.

“ Whereas, it is expedient to make provision for the safe custody of, and prevention of crime being committed by, persons insane: Be it, therefore, enacted by the Lieutenant Governor of New Zealand, with the advice and consent of the Legislative Council thereof, as follows:—

“ 1.—If any person shall be discovered and apprehended under circumstances denoting a derangement of the Mind, and a purpose of committing suicide, or any crime for which, if committed, such person would be liable to be indicted, it shall be lawful for any two Justices of the Peace before whom such person may be brought, to call to their assistance any two legally-qualified Medical Practitioners; and if upon view and examination of such person, and upon proof on oath by the said Medical Practitioners to the effect that, in their opinion, such person is a dangerous Lunatic or a dangerous Idiot, then it shall be lawful for the said Justices, by warrant, under their hands and seals, to commit such person to some Gaol, House of Correction, or Public Hospital, there to be kept in strict custody until such person shall be discharged by an order of two Justices of the Peace, one whereof shall be one of the Justices who has signed such warrant, or by one of the Judges of the Supreme Court, or until such person shall be removed to some Public Colonial Lunatic Asylum by order of His Excellency the Governor, as hereinafter provided.

“ 2.—Every such person, while in such custody as aforesaid, shall have the liberty of seeing his or her friends and legal advisers at all reasonable times; and nothing herein contained shall prevent any relative or friend from taking such Insane person or dangerous Idiot under his own care and protection, provided he enters into sufficient recognizance for the peaceable behaviour or safe custody of such dangerous Lunatic or Idiot before two Justices of the Peace, the Court of Sessions, or before one of the Judges of the Supreme Court.

“ 3.—It shall be lawful for the Governor, by warrant, under his

hand, to direct that any person so kept in custody by any such warrant as aforesaid, or any Person who may be in any Prison or any place of confinement, except for debt or under any Civil Process, and in respect of whom it shall be certified by two legally-qualified Medical Practitioners that such person is insane, shall be removed to such Public Colonial Lunatic Asylum as the said Governor shall appoint.

“4.—Every person so removed as aforesaid shall remain under confinement in the Asylum to which he may have been removed until it shall be certified to the Governor by two such Practitioners as aforesaid that such person has become of sound mind : whereupon the said Governor is hereby authorised and required, if such person shall remain subject to be continued in custody, to issue his warrant to the keeper or other person having the care of any such Asylum, directing that such person be remitted to the Prison or other place of confinement from which he may have been taken, or if the period of imprisonment or custody of such person shall have expired, or if such person shall not be under any sentence of imprisonment, that such person shall be discharged : provided always that nothing herein contained shall prevent the relatives, guardians, or friends of any insane person or idiot from removing such person, with the sanction of His Excellency the Governor, from any Public Colonial Lunatic Asylum upon their giving sufficient security for the safe custody of such insane person or idiot in manner hereinbefore mentioned.

“5.—In case it shall be certified to the Governor by two such Practitioners as aforesaid that any person committed to prison for Trial for any offence is insane or is an idiot, it shall be lawful for such Governor, if he shall think fit, in like manner to order that such Person shall be removed to such Lunatic Asylum as he shall appoint, unless in the meantime admitted to bail by some legal authority until the sitting of the Court at which such person should be tried or indicted according to the due course of law, and that such person shall then be remitted to the custody of the Keeper of the Gaol or other person in whose custody such person may have been, under the terms of the original committal, in order to his being indicted and tried for such offence or otherwise disposed of according to law ; provided always that every such person, while so detained in such Lunatic Asylum, shall have the same liberty of seeing his friends and legal advisers at all reasonable times which he would have had in the gaol or prison from which he may have been removed.

“6.—In all cases where it shall be given in evidence upon the trial of any person charged with any Treason, Murder, Felony, or Misdemeanor, that such person was insane at the time of the commission of such offence, and such person shall be acquitted, the Jury shall be required to find specially whether such person was insane at the time of the commission of such offence, and to declare whether such person was acquitted by them on account of such Insanity ; and if they find that

such person was insane at the time of committing such offence, the Court, before whom such trial shall be had, shall order such person to be kept in strict custody in such Gaol or place of confinement and in such manner as, to the Court, shall seem fit until the Governor's pleasure shall be known; and it shall thereupon be lawful for the Governor to give such order for the safe custody of such person during his pleasure in such place and in such manner as, to the Governor, shall seem fit.

"7.—If it shall appear to any two legally-qualified Medical Practitioners present at any examination of any Person in custody that such Person is not insane or a dangerous idiot, and that such person may be suffered to go at large with safety, it shall be lawful for such Practitioners, and they are hereby required to give a Certificate to that effect, signed by them, to the Visiting Justice, or in his absence, to the Keeper of the Gaol or House of Correction in which such person is in custody, who is hereby required to transmit the same forthwith to the Governor for the time being, who shall order the liberation of such person from custody, unless he shall be detained therein for some other cause by due process of law.

"8.—It shall be lawful for the Governor to nominate and appoint some fit person or persons to be Visitor or Visitors of such Lunatic Asylums within the Colony; and the said Visitor or Visitors to remove and displace, and to appoint another or others in his or their stead: the persons so appointed shall visit such Asylums and make Reports thereon at such times and in such manner as the Governor shall from time to time direct and appoint.

"9.—And whereas, it is also desirable to provide for the care and maintenance of Persons who are insane, but not dangerously so: Be it enacted that it shall be lawful for the Governor, on the application of one or more of the relatives or guardians or friends of any insane person (which application shall be sanctioned in writing by one of the Judges of the Supreme Court), and on receiving the certificate of two legally-qualified Medical Practitioners that they have examined and found such person to be of unsound mind, to direct and order, if he think it proper so to do, that such Person be received in such Lunatic Asylum as he, the said Governor, shall appoint.

"10.—When any insane Person shall be committed to any Gaol or Hospital as aforesaid for the purpose of being received into such Lunatic Asylum as the said Governor may appoint, the removal to and from, and maintenance in the said Asylum of such Insane Person shall, until further provision be made, be at the expense of the Colony.

"11.—Provided always, and be it further enacted, that it shall be lawful for the Superintendent of any such Asylum, in all cases where any Lunatic or Idiot shall be possessed of sufficient means to defray the expense of his or her maintenance in any such Asylum, to agree with any relative, guardian, or friend of any such Lunatic or Idiot for his or her maintenance whilst detained therein.

“ 12.—No action shall be brought against any person or persons on account of any act, matter, or thing done or to be done, or commanded by such person or persons in carrying the provisions of this ordinance into effect, unless such action be commenced within three calendar months after the cause of action or complaint shall have arisen; and in any such action the general issue may be pleaded, and the special matter given in evidence.

“ 13.—For the purposes of this ordinance, no person shall be deemed a legally-qualified Medical Practitioner unless such Person shall have proved to the satisfaction of two Justices of the Peace that he is a Doctor or Bachelor of Medicine of some University, or a Physician or Surgeon, licensed or admitted as such by some College of Physicians or Surgeons in Great Britain or Ireland, or a Member of the Company of Apothecaries of London, or who is, or has been, a Medical Officer duly appointed and confirmed of Her Majesty's Sea or Land Service.

“ 14.—Provided that nothing herein contained shall be construed to prevent a writ *de lunatico inquirendo* from being sued out of the Supreme Court by any person or persons having a lawful right to do so for the purpose of having the fact of the insanity or idiocy of any person not dangerously insane or idiotic tried by due course of law.

“ 15.—For the purposes of this ordinance, the word ‘Governor’ shall be taken to include the ‘Lieutenant-Governor,’ or the Officer administering the Government of the Colony for the time being.

(Signed)

GEORGE GREY,

Lieutenant-Governor and Commander-in-Chief.

Passed the Legislative Council }  
this 18th day of November, 1846, }

(Signed)

J. COATES,

Clerk of Councils.”

## II.—*Lunatics' Ordinance Amendment Act, 21 and 22 Vict., No. 61.*

“ An Act to amend an ordinance to make provision for the safe custody of, and prevention of offences by, persons dangerously insane, and for the care and maintenance of persons of unsound mind : passed 19th August, 1858.

### *Analysis.*

“ Title.

“ Preamble.

“ 1.—Resident Magistrate or two Justices may, on being satisfied by information on oath, apprehend a person believed to be suffering from mental derangement.

“ 2.—Resident Magistrate or two Justices, being satisfied by declaration on oath of Medical Practitioners, may forthwith commit to some place of safe custody.



“3.—Resident Magistrate or two Justices may on being satisfied by declaration on oath of Medical Practitioners, order person of unsound mind to be received into some Public Lunatic Asylum or Hospital.

“4.—Person committed may be handed over to the custody of his friends on their entering into surety that he shall receive proper treatment and keep the peace.

“5.—Superintendents may visit and inspect Lunatic Asylums.

“6.—Legally-qualified Medical Practitioners defined.

“7.—Section IX of Ordinance XXI of Session VII repealed.

“8.—Short Title.

“Whereas, by an Ordinance enacted by the Governor of New Zealand, with the advice and consent of the Legislative Council thereof, Session VII, No. 21, entitled ‘An Ordinance to make provision for the safe custody of, and prevention of offences by, persons dangerously insane, and for the care and maintenance of persons of unsound mind,’ it is enacted that dangerous lunatics and persons of unsound mind may be apprehended and kept in custody in the manner therein provided: And whereas it is expedient that further provision be made for the apprehension and safe custody of persons suffering under mental derangement by whatever cause produced, and for the prevention of mischief of any kind whatever at the hands of persons liable at various and uncertain times or periods to attacks of mental alienation, whether temporary or permanent:

“Be it therefore enacted by the General Assembly of New Zealand in Parliament assembled, and by the authority of the same, as follows:—

“1.—It shall be lawful for any Resident Magistrate, or any two Justices of the Peace, on being satisfied by information upon oath that there is reasonable ground to believe that any person is suffering from mental derangement, either permanently or temporarily as aforesaid, which is likely to endanger the safety of any person whomsoever, or to result in any injury to property, to issue by warrant under his hand and seal, or their hands and seals as the case may be, an order for the apprehension of the person so believed to be suffering from such mental derangement as aforesaid, and for his detention in a place of safe custody in such convenient manner as the said Magistrate or Justices shall direct; and such person so apprehended shall forthwith be brought before the same, or other Resident Magistrate or Justices of the Peace, at some convenient place to be named in the warrant of apprehension, to be further dealt with as hereinafter provided.

“2.—The Resident Magistrate or Justices before whom such person shall be brought as aforesaid, shall, without any unnecessary delay, direct two or more legally-qualified Medical Practitioners forthwith to examine the person so apprehended; and if, upon view and examination of the person so detained in custody, the said Medical Practitioners shall declare upon oath that, in their opinion, the person

so detained in custody is at that time, or is likely shortly to become, dangerous to himself or others, or is in any way disposed to violence, it shall be lawful for such Resident Magistrate or Justices of the Peace by warrant under his hand and seal, or their hands and seals as the case may be, to commit such person to some Public Lunatic Asylum, or in the event of none such being available, to some Public Hospital, Gaol, or other place of safe custody, there to be kept in safe custody until such person shall be discharged by order of a Resident Magistrate or any two Justices of the Peace; and if any Medical Practitioner, not being in full pay in Her Majesty's land or sea forces, shall refuse to visit, examine and report upon the condition of any lunatic as above provided, he shall be liable to a penalty of not more than £50 for each offence, to be recovered in a summary way.

“ 3.—And whereas it is also desirable to provide for the care and maintenance of persons who are of unsound mind, who may not have shown a disposition to violence: Be it enacted that it shall be lawful for any Resident Magistrate, or any two Justices of the Peace, on application of one or more of the relatives or friends of any person of unsound mind, and on receiving a declaration on oath from two or more legally-qualified Medical Practitioners that they have examined and found such person to be of unsound mind, to direct and order, if he or they think proper so to do, that such person be received in such Public Lunatic Asylum or Hospital as such Resident Magistrate or Justices may appoint. Provided always that no such direction or order shall be acted upon unless and until the same shall have been endorsed with the signature of a Judge of the Supreme Court, or the Superintendent of the Province in which such Lunatic Asylum or Hospital is situate, after a proper inquiry by him, if he shall think fit, as to the propriety of carrying out such order or direction.

“ 4.—Provided always that the person so committed to any Lunatic Asylum, or other place of safe custody as aforesaid, may at any time be handed over to the care of any of his relatives or friends, upon their making application to that effect, and entering into such sureties as may be deemed sufficient by any Resident Magistrate or any two Justices of the Peace that the person so proposed to be enlarged shall receive proper treatment while in their custody, and shall keep the peace towards himself and all Her Majesty's subjects, and such sureties shall only be discharged by two Justices of the Peace.

“ 5.—It shall be lawful for the Superintendent of any Province to visit and inspect any Lunatic Asylum or Hospital situated within the province of which he is Superintendent, at such times as he may deem convenient.

“ 6.—Every person holding a degree or diploma, or license in Medicine or Surgery from any University or College or other corporate body duly authorised to grant the same in Great Britain or Ireland, or who is a Member of the Company of Apothecaries of London or Dublin, or who is or has been a Medical Officer in her Majesty's

land or sea service, shall be deemed a legally-qualified Medical Practitioner for the purposes of this Act.

“7.—Section IX of the said recited Ordinance, No. XXI of Session VII of the Legislative Council, and all other provisions contained in the said Ordinance, which are repugnant to any provisions of this Act, are hereby repealed.

“8.—The short title of this Act shall be ‘The Lunatics’ Ordinance Amendment Act, 1858.”<sup>13</sup>

It is evident that the main object of both the Acts just recited is protection of the public from the nuisance of criminal or dangerous lunacy, by providing for the *custody* of certain pests of society. This is always the case in young colonies. Attention is drawn to the Insane, in the first place by reason of the necessity that exists to provide for the elimination from society of wandering Lunatics, who are not only non-productive citizens, but who threaten the public safety or public decorum. Even in the case of those insane colonists, who cannot be pronounced dangerous either to themselves or others, the object of all early legislation is *safe custody*, not curative nor restorative treatment. Even at the present day, in the Lunatic Hospital of the Government Metropolis of New Zealand, Wellington, no attempt apparently is made at *curative treatment*! Thus we find in the “Minutes of Evidence” appended to the “Report of the Joint Committee on Lunatic Asylums” of 1871, the following statements by the Physicians to the said Asylum near the City of Wellington. Dr. Johnston was asked “Did you use any curative means when you were there?” “No,” he replied, “I had no opportunity. . . . When I visited the Karori Asylum I had no moral control. I merely attended the patients professionally in the case of illness.” “Had you any amusement for the patients? any curative treatment?” “No, none.” “Had the attendants any special knowledge of the treatment of Lunatics?” “No. I believe those who had charge of them were uneducated, and not at all capable to administer

<sup>13</sup> The Agent-General for New Zealand in Great Britain (then John Morrison, Esq., of London), informed me by letter, of date January, 1872, that “The ‘Lunatics’ Act, 1868,’ repeals all Acts existing at that time relating to Lunacy, and is the only one now in force in New Zealand.” He adds that “the copies of New Zealand Acts kept in this office are all bound, and are never allowed to leave the office; but at the same time anybody is at liberty to see them, and if necessary can take copies.” I have not, however, had any opportunity of perusing the Statute of 1868, so that I am unaware of the extent to which the Acts of 1846 and 1858 have been modified by subsequent legislation.

curative treatment." "Are you aware that any patient has been discharged as cured from the Wellington Asylum?" "I believe so; but I do not know of my own knowledge. I think they have been left very much alone, and sometimes Nature has re-asserted itself!" Dr. France was asked—"Do the patients ever get out? Leave the asylum?" "No; there is no arrangement for their going away." "Do they never leave the asylum?" "No." "Do you allow the patients out of control occasionally?" "We have no means of doing so." "How do you mean, no means?" "No means of letting them out except as cured." "If their friends gave a guarantee?" "They have no friends; they are paupers." "Are there any out with friends at present?" "No; none are out. We cannot send them out to get a living or employment!"

Both the acts of 1846 and 1858 contain terms [such as "keeper"] which are equally objectionable and obsolete. The existence of the asylum-physician is ignored in certification [clause 4, Act 1846]; a circumstance due, no doubt, to there being as yet no resident physician-superintendents in any of the asylums of New Zealand. The power of the governor of the colony is much too great or exclusive: and he is burdened with a kind and amount of work from which he should be free [Clause 9, Act 1846]. All necessary powers—of granting warrant for admission into asylums—should be vested in the local justices of the peace, judges, or other legal officials. *Two* medical certificates are unnecessary<sup>14</sup>—though unquestionably they are an advantage, where obtainable. But it is not always possible or easy to procure even *one*; and the absence of a second may prove a serious obstacle to prompt or timely transfer to, or admission into, a proper lunatic hospital. Clause 13 of Act 1846, is too exclusive in its definition of qualified medical practitioners. The category should be made to include physicians trained in the medical schools of Continental Europe—especially of Germany, France, and Italy; as well as of the leading British Colonies and the States of the American Union. All degrees or diplomas—of an authentic and satisfactory character—should be duly recognized and accepted

<sup>14</sup> We have the assurance of one of the most experienced alienists of the United States—Dr. Kirkbride, of the Pennsylvania Hospital for the Insane, at Philadelphia—that *one* certificate—"in the simplest form, without evidences"—is sufficient for all practical purposes. [*Vide* Dr. Robertson's "Visit to American Asylums:" "Journal of Mental Science" for April, 1869, p. 73.]

as titles to practice and certify. Obligatory certification [Clause 2, Act 1858] is a glaring injustice—especially in a country where actions for damages are much more common than at home. This legal compulsion to certify certainly, however, defeats its own end. I found among the medical practitioners of New Zealand great ignorance of the phenomena and treatment of insanity; a consequent timidity in testifying to its presence; and a resultant impossibility of obtaining necessary legal proceedings in manifest cases of lunacy.<sup>15</sup> Medical men, if compelled to certify, prefer not to commit themselves to the possible results of pronouncing a verdict of insanity. There is the same dubiety about moral insanity—including, especially, that common form of it known as Dipsomania—in our colonies as at home; and no wonder, so long as our colonial cousins are guided by the remarks of the lawyers and the press in such public trials as those—in England—of Watson and Edmunds, in January, 1872. In clause 3, of the same Act, the resident magistrate or justices have powers of too arbitrary a kind; while the formalities connected with the admission of patients are unnecessarily and mischievously complex.<sup>16</sup>

So far as I am aware, there are yet no asylums for the insane in the provinces of Hawkes Bay, Taranaki, Marlborough, or Southland; while those of Nelson and Wellington are notoriously defective. Hence the necessity—that still exists—of committing all classes of the insane—even those who are harmless, and belong to the educated classes—to public *gaols*, houses of correction, or general *hospitals* or infirmaries; either for permanent custody, or as a temporary measure prior to transfer to some special lunatic hospital.<sup>17</sup>

<sup>15</sup> In one case—where certificates from local practitioners could not be procured, my assistance was solicited, along with that of the surgeon of a newly-arrived emigrant ship, in order to the establishment before a court of law of an obvious case of lunacy—of the moral insanity type.

<sup>16</sup> Compared with the similar formalities in Britain, the procedure necessary in certain, at least, of the States of the American Union is a model of simplicity. One medical certificate; an application by one relative; and an obligation by him for payment of board—are the only documents required. The warrant of no *legal authority* of any kind is exacted! And these simple forms answer, we are assured, quite as well as the confusingly complex ones in use in our own country. Patients may also, however, be committed by order of a court, judge, justice, magistrate, or other legal or public authority.

<sup>17</sup> Precisely similar was the state of matters at one time in New South Wales. The Rev. Dr. Lang, of Sydney, in his account of that colony [Vol. II, appendix, p. 569], gives among diseases treated at the Sydney Infirmary and Dispensary during the year 1850, four cases of mania in the *Infirmary*, and three in the *Dispensary*.

The effect of the association of lunatics with criminals in the public gaols of New Zealand has been freely commented on by various of the medical or other officers of these institutions. Thus Mr. Stoddart, keeper of the Public Prison of Dunedin, and Dr. Hulme, the Provincial Surgeon of Otago, long ago directed public attention to the difficulty of managing criminals when associated in the same building with lunatics, and the injustice of housing together in a general hospital patients afflicted with ordinary surgical and medical ailments on the one hand, and with mental aberration on the other. In the statistics of the *Dunedin Hospital* for 1861-2, drawn up by Dr. Hulme, the Provincial Surgeon of Otago, it is recorded that six lunatics were resident in it at the beginning of the year; while 12 were admitted during its currency. In his report for 1862-3, 12 were resident at the beginning of the year, while 24 were admitted during its currency. Dr. Hulme remarks, "among the lunatics are many cases of old incurable inmates; the number discharged, cured and benefited, is above the average; and one death only is below the average in asylums in Europe." The gaoler of Dunedin (Stoddart), in his Report for 1863, observes, "The confinement of lunatics here is very objectionable and dangerous. Latterly, through the crowded state of the gaol, I was obliged to put them *in the same cells with criminals*. The disturbance created by some of them at night renders it impossible for the officers to detect any attempt to escape made by the convicts."<sup>18</sup> Nevertheless the Report of the Governor of the same Dunedin Gaol, for the year ending March, 1869, says that six lunatics had been admitted during the said year. In the "Minutes of Evidence" of 1871, in reference to the province and city of *Wellington*, Dr. Johnston was asked—"You say there are three (lunatics) in the *gaol*, and two in the *hospital*. Why were they admitted?" "Because there was no accommodation and no room for them elsewhere. . . . I have often received complaints from the warder of the gaol that the noise made by lunatics there is sufficient to keep the hard-labour prisoners awake all night, and give them great reason for making excuses that they were not fit to go out to work.

<sup>18</sup> An incident, that went the round of the Otago newspapers in 1863, headed "Jenkins again," brought out the difficulties the gaol authorities had to contend with in the management together of lunatics and criminals. A quotation thereanent from the "*Otago Daily Times*," of September 28th, 1863, is given in my paper on "*Insanity in British Emigrants*," p. 226.

Keeping lunatics there was subversive of all discipline." Dr. McGauran, Provincial Surgeon of *Auckland*, in his Report on the Provincial Lunatic Asylum, in January, 1858, tells us that in addition to its population "seven other lunatics have been under my care in the *Hospital, Stockade, and Gaol*." In his next year's Report, 1859, "three had been transferred from the Hospital and Gaol, where they had been under treatment during 1857."<sup>19</sup>

There ought to be some legislative enactment, punishing, if it be possible, all who are accessory to the sending or receiving from the home country of persons labouring under any form or stage of insanity, who are not provided with adequate funds for their independent maintenance. These penal enactments should be made sufficiently public both in Britain and in the Colony itself. Every now and then incidents such as the following are recorded in the Colonial newspapers:—"Among the female passengers of the emigrant ship, 'Peter Denny,' which arrived at Port Chalmers from Glasgow, on the 12th ulto., there was an unfortunate *lunatic*. She appears to have been *surreptitiously* placed on board by a medical gentleman (?), who thought fit to take advantage of the absence of any penal enactment in this Colony which could meet such a case. As this description of fraud has of late become *common*, our Legislature will probably lose no time in providing against it for the future."<sup>20</sup> This transshipment or importation of lunatics or imbeciles from Britain—the immigration of cases of moral insanity, or persons tainted with dipsomania—of ne'er-do-wells, who swell the ranks of idlers, gamblers, swindlers, frequenters of low society—undoubtedly adds materially to the insane population of New Zealand and other British colonies. Sometimes imbeciles and lunatics are sent abroad with a knowledge, on the part of the relatives or friends, of the mental want or perversion, simply in order to rid themselves of a family encumbrance and a domestic nuisance. Sometimes, on the other hand, there may be genuine ignorance of the real state of mind of the unfortunate exile—coupled with a belief that casting the idler or the apathetic youth on his own resources in an energetic young community, where he and his peculiarities are unknown, will prove his salvation from

<sup>19</sup> In the Hospital and Gaol of *Wanganui*, in the Province of Wellington, there is similar provision for the insane, according to Major Blewitt, of the 65th Regt.

<sup>20</sup> "Otago Daily Times," June 9th, 1869.

a life of uselessness to himself or others, by giving him the opportunity of "turning over a new leaf" in his life.<sup>21</sup> In either case, however, measures should be adopted by the Colonial authorities—so far as possible—to meet and counteract the evils arising from the immigration of the insane or imbecile. Such measures should include, for instance—

(1.) The more thorough inspection of the passengers of emigrant or other vessels sailing from British to New Zealand ports.

(2.) An equally careful inspection of such passengers on their arrival out. The captain of the vessel, its doctor, matron, officers, and crew, as well as the various grades of passengers, could throw important light on the true nature of the peculiarities of many troublesome shipmates.

(3.) The immediate return to Britain of immigrants found, on arrival out, to be insane or imbecile, and unprovided with funds for their independent maintenance. Such a step, however costly, would ultimately lead to great saving to the various Provincial exchequers.

There is evidence in both the New Zealand Lunacy Acts of 1846 and 1858 that they have been based on the model of *English* statutes. There could, however, be no greater mistake than for any of our colonies to copy *English* practices or adopt *English* views regarding the State management of the insane. Our Lunacy Laws are numerous, complex, and elaborate to a confusing degree. Our legal criteria of insanity are the grossest scientific absurdities, and involve the gravest practical fallacies or errors. We occasionally hang our insane, and refuse the ordinary rites of burial to our suicides.<sup>22</sup> There could, for instance, be no grosser perversion of justice than the recent condemnation, by an incompetent *jury*,<sup>23</sup> of the Rev. John Selby Watson and Miss Christina Edmunds (both in January, 1872), in oppo-

<sup>21</sup> *Vide* also what I have said on this subject in a paper on "Insanity in British Emigrants of the Middle and Upper Ranks," in the "Edinburgh Medical Journal" for September, 1869, p. 217.

<sup>22</sup> A celebrated Australian case, comparable unfortunately to some of our own, is that of Miss Loftus, quoted in my "Suggestions for the Supervision of the Insane in our Colonies," p. 485, foot note. Compare it *e. g.* with the newspaper accounts of an English case of *felo-de-se* that occurred in the Isle of Wight so lately as January, 1872.

<sup>23</sup> The incompetency of *ordinary juries* to deal with questions involving the determination of the existence or non-existence of the numerous and frequently puzzling forms of mental disease, renders it highly desirable that, if such questions are to be brought before such juries at all, the jurymen should be assisted in their judgment by competent *medical experts*.



sition to the strongest and highest medical testimony in favour of the insanity of both. Whatever may be said by lawyers and journalists, the nature of the crime itself is, in such cases, one of the most convincing proofs of insanity to the experienced alienist. The untenable legal dogma of a knowledge of right and wrong, as a test of insanity, was laid down by the presiding judge (Baron Martin) in the Edmunds' case, where the evidence of hereditary insanity was overwhelming. Those who, in this country, are charged by Government with the administration of lunacy matters, whether these authorities are medical or legal, are too frequently doctrinaires, who hold impracticable, speculative views, which, as mischievous *hobbies*, they ride *usque ad nauseam*. Our public opinion at present errs egregiously in the direction of granting too great license and indulgence to the insane; the results whereof include, *inter alia*, a succession of homicides and suicides, the record of which gives a permanently sensational character to our daily press. Our system of Barracking the insane and imbecile in enormous central establishments is now universally condemned by competent authorities. The *hospital* plan of treatment itself is shown to be radically mischievous. And in short, in certain respects at least, *lunacy reform* is not less wanted in *England* than in our colonies! So far from our present lunacy system tending to prevent, repress, or minimise lunacy, it has a precisely contrary effect; and the time approaches when the public will object to expend unlimited funds on the unlimited construction of lunatic asylums, which, however large or numerous, are found powerless to stem the ever-rising tide of lunacy. If this be the case, England is not in a position to offer models for her colonies to imitate. Rather should it be her mission to hold out warnings for her daughters—cautions to avoid the errors which she has, over and over again, obstinately committed. In framing future statutory provision for the management of the colonial insane, the Lunacy Laws of certain of the American United States, and *not those of Britain*, should be adopted as a model by New Zealand. Even Norway (as I have elsewhere shown) is in advance of England as regards the brevity and simplicity of its Lunacy Laws.<sup>24</sup> *Over-legislation* will be the inevitable result of taking, as a model for a

<sup>24</sup> *Vide* "Insanity and Lunatic Asylums in Norway;" Reprint from "Quarterly Journal of Psychological Medicine," April, 1858, pp. 3, 41 and 44. The simplicity of the admission-forms into asylums is commented on at p. 20.

colony, the Lunacy Statutes of either England, Scotland, or Ireland.<sup>25</sup>

Its "Report on Lunatic Asylums" of 1871 shows conclusively the importance to the New Zealand Government of the presence in the Colony of some officer capable of advising it on all the intricate subjects or questions connected with the erection and administration of Lunatic Asylums in the different Provinces, and on dealing with those forms of Insanity that puzzle and perplex local medical or legal authorities. The report in question contains ample evidence of the necessity at present existing for reform in Lunacy affairs in New Zealand; but, though it embodies the suggestions of all the principal authorities in the colony connected with the management of the various local Asylums, few, if any, of these suggestions are of any real value—proceeding as they do from men confessedly ignorant, more or less, of the difficult specialty on which they do not hesitate nevertheless to express confident opinions. There is only one way of securing to the colony the services of competent Lunacy Experts, viz., by the offer of handsome inducements to men trained in Britain to emigrate to the Antipodes. But at present it seems hopeless to expect the New Zealand Government or Public to grant the necessary funds. Colonial ideas of the salaries sufficient to secure at and from home the services of first-class experts are of the most amusing character—amusing for the gross ignorance or the arrant conceit they display. Only the other day, for instance, the Otago Provincial Government was about to instruct its home agent to look out for a first-class Inspector of Schools at the munificent salary of £400 a year! The Otago Government would have been fortunate had it succeeded in obtaining a good sixth-class clerk from home for such a pittance. The same Government seems to have been seized with that mania for retrenchment that periodically affects all Governments.<sup>26</sup> After a fifteen years' service it has reduced the salary of its Provincial Inspector of Schools (a man who has been the main instrument of

<sup>25</sup> The well-known American alienist, Dr. Ray, in a paper on "American Legislation on Insanity," points out on the one hand the evils of over-legislation in England, and on the other the simplicity of the formalities for admission into asylums in America.—[*Vide* "Journal of Mental Science" for January, 1865, pp. 576 and 578. At p. 581 will be found a "Project of a General Law for determining the Legal Relations of the Insane."]

<sup>26</sup> A telegram of 10th July, 1869, from Sydney informed us that "Government intends to *reduce the expenditure* of the Lunatic Asylum and Gaol Departments;" whereas it might fitly have made a grant of at least £100,000 to provide proper asylum accommodation for New South Wales.

originating and putting into working order one of the best systems of education to be found in any of the British Colonies) from £500 to £400; while the emoluments of the Surveyor-General of the Province—a public officer of still older standing (who has had all the hard work of exploring as well as surveying the province from the very date of its settlement)—is rewarded by having his salary cut down from £700 to £400! Does it not occur to the parsimonious Government authorities of Otago to contrast the salaries they venture to offer to first-class officials with the emoluments of many classes of the general public—the majority of the members of which are greatly the inferiors of the officials in question, both in general culture and in special knowledge. For instance, merchants of all kinds—men frequently of no special culture and of no signal ability save that, often of a questionable kind, which is implied in the aptitude for accumulating money—both at home and abroad—easily make as many thousands per annum as the Otago Government offers hundreds to its highest officials. Even the assistants, confidential clerks, commercial travellers, or shopkeepers, of merchants or mercantile firms often have upwards of £1,000 a year. Again, the managers, and even the provincial agents of Bank and Insurance Companies have frequently an annual salary of £1,000 or more. Indeed, the category of persons making upwards of £1,000 a year is a numerous one in the home country as in our colonies; and it embraces very different classes of men, professional and non-professional. Nor can I believe that the Government authorities of New Zealand, in determining the salaries that should be offered to persons selected at home for their special experience or ability in any sphere of usefulness, bear in mind, if they are acquainted with, the salaries given to clerks in our own *Colonial Office*. As stated in the English newspapers of Nov., 1872, there are in that office three classes or grades of clerks—the first or senior having £1000 a year, rising to £1200; the second £600 to £900; and the third £250, rising by £20 a year to £600. Quite recently the well-known Metropolitan Asylum of Hanwell (London) failed to obtain such a Physician as would satisfy the requirements of the Directors, notwithstanding ample public advertisement and the offer of a salary of £600 with a furnished house and other advantages. If such difficulties occur in England in securing an ordinary Asylum Physician, they are much more likely to occur in a colony when it solicits from home a competent Inspector of Asylums

or Commissioner in Lunacy even at a salary double that which can easily be commanded by Asylum Physicians in the home country.

In England there are, at least, five public lunacy physicians who draw upwards of £1,000 of official salary, viz. :—Three Medical Commissioners in Lunacy and two Visitors of Chancery Lunatics. There are, moreover, several physicians to public asylums, whose emoluments amount to about £1,000—their official salary varying from £400 to £800, with, in addition—house, furnished or not, coals, gas, vegetables, dairy produce, or board for self and family—in different cases. In Scotland there are, at least, four lunacy physicians, with emoluments of £1,000 a year or upwards, viz. :—Two Medical Commissioners in Lunacy, and two physicians of public asylums. There are besides several others, whose income ranges from £500 to £1,000, including two Deputy Commissioners in Lunacy, and several physicians of public asylums.<sup>27</sup> Considering the difference in value between home and colonial salaries, in relation to the cost of living and travel, the sum of £2,000<sup>28</sup> a year for a colonial Inspectorship of asylums or Commissionership in lunacy must be regarded as both modest and moderate.<sup>29</sup> The holder of such an office should, moreover, have a liberal superannuation allowance after a comparatively short period of active service—much shorter than at home—so that he may return, should he so desire, to the mother-country with a certain measure of vigour, and capacity for the enjoyment of the remainder of

<sup>27</sup> The reader will find a table showing the emoluments of a number of medical practitioners in lunacy, at home and abroad, in my paper on “Colonial Lunacy Boards, with special reference to New Zealand,” in the “Edin. Medical Journal” for March, 1872. But since that Table was published, increase—to the extent of £100 or £150 a year in each case—has been made to the salaries of several of the Physicians specified; while the names of several others, whose income now ranges between £500 and £1,000 a year, fall to be added to the list.

<sup>28</sup> My public critics in Otago, including Dr. Buchanan, have misunderstood what I said, at the close of my Paper in the “Edin. Med. Journal” of March, 1872, concerning £4000 a year as a suitable salary for a Colonial Commissioner in Lunacy. What I did say was that, *if* certain data were accepted as the basis of calculation, the result would give the sum in question. But I did not recommend, nor did I even or ever dream of recommending—the New Zealand Government to offer *such* a sum to *its* Inspector-General of Asylums, for this sufficient reason, that I know there is very small chance of inducing the Colonial Authorities to give even the half of it!

<sup>29</sup> I have the less hesitation in remarking upon the emoluments of a Colonial Inspector of Asylums, that many of my observations apply (*mutatis mutandis*) also to the Physicians of the various Provincial Asylums in New Zealand.

his life. The present holders of such offices in our colonies are generally men who have enjoyed no prominent status nor signal reputation at home—youngsters mostly who have been taken from the assistantships of English county asylums. Plenty of the medical assistants of these institutions may probably be got to accept the offer of a colonial government to supervise its asylums; just because their prospects at home are narrow and unpromising amid the competition that exists. But the limited experience of these gentlemen is not of a kind to qualify for the occupation of so important a post as that of a commissionership in lunacy in a new country. It is certainly not a sufficient qualification for a colonial inspector of asylums that a young, unknown, untried physician should have gathered a certain kind and amount of experience in one of the numerous and common-place county asylums of England.<sup>30</sup>

It would be unprofitable, however, further to discuss at present the defects of the New Zealand Lunacy Statutes, or the errors of that Government in its arrangements for the treatment of the insane. Suffice it, for the present, to indicate the following *desideranda* as requiring the attention of the New Zealand Legislature:—

“1.—The consolidation and simplification of the Lunacy Statutes on some of the best *American* models.

“2.—The greatest practicable simplification of the forms of Admission into and Discharge from asylums.

“3.—The supply of skilled officers of all grades to the various Provincial Asylums.

“4.—The provision of a proper Lunacy Board for the colony.

“5.—The substitution of trial by or before Experts for ordinary trial by jury—in disputed lunacy cases.

“6.—The provision of different Classes of Asylums, including:—

“(a) Proper asylums in Provinces where at present there are none.

“(b) A central Gheel colony for the economical application of the industry of harmless imbeciles and the chronic insane.

“(c) Reformatories for habitual or insane Inebriates.

“(d) Clinical City-asylums.

“(e) Country Receiving houses; or Parochial Cottage-asylums.

“(f) Private asylums for the Affluent classes.

“7.—Collection of reliable Statistics of Insanity in the colony—as affecting both Maories and settlers.”

<sup>30</sup> The whole subject of *Colonial Lunacy Commissioners* will be found discussed in my paper on “Colonial Lunacy Boards,” already quoted.

*Tumours of the Brain in the Sane and the Insane.* By R. BOYD, M.D. Ed., F.R.C.P. London.

In the July number of the "Journal of Mental Science" is a paper of considerable interest by Dr. Clouston on "Tumours of the Brain and their Relation to its Mental Functions." Only a few cases are there recorded. The following contribution is submitted to the members of the Medico-Psychological Association :—

During my residence in the St. Marylebone Infirmary, in three years and a-half, there were in 1039 *post-mortem* examinations 22 cases of tumours of the brain; one of these was transferred to the insane ward, and two were in a state of fatuity, leaving 19, or at the rate of about 18·3 per thousand, in whom no mental derangement was observed.

At the Somerset County Lunatic Asylum, in 875 *post-mortem* examinations there were 14 cases of tumours of the brain, or at the rate of 16 per thousand. Of these 502 were males, and tumours of the brain were found in 8, or at the rate of 15·9 per thousand; and 373 were females—tumours of the brain were found in 6, or at the rate of 16 per thousand. Besides these tumours of the brain, abnormal enlargement of the paccionian bodies and deep corresponding depressions in the inner table of the skull were found in one male and in one female.

The rate of mortality in the Asylum at the end of twenty years was above 32 per cent. in males and 24 per cent. in females. This higher rate of mortality amongst males is not confined to the insane, for, by my "tables of the weights of the human body and internal organs," published in the "Philosophical Transactions" for 1861, in 2086 *post-mortem* examinations made in the St. Marylebone Infirmary, on referring to the assigned causes of deaths, it will be seen that *diseases of the nervous system* were more fatal to males at all ages, except at the decennial period from 20 to 30 years; also, after 60 years of age, at which period there were 100 more females than males.

At the earliest period still-born and new-born male children especially are subject to apoplexy, probably consequent on

the act of parturition, having usually larger heads.\* The average weight of the encephalon in 43 still-born male infants at the full period was 13·8, and in 31 female infants 12·2 ounces.

The following abstract shows the relative mortality, at different periods of life, from *diseases of the nervous system*, in 1025 males and 1061 females, in the St. Marylebone Infirmary:—

|                                    | Males. | Females. |
|------------------------------------|--------|----------|
| Still-born and new-born infants... | 35     | 19       |
| Under 1 year ... ..                | 13     | 9        |
| From 1 to 7 years... ..            | 10     | 8        |
| „ 7 to 20 years ... ..             | 7      | 5        |
| „ 20 to 30 years ... ..            | 3      | 13       |
| „ 30 to 60 years ... ..            | 64     | 54       |
| „ 60 upwards ... ..                | 35     | 79       |
|                                    | —      | —        |
| Total ... ..                       | 167    | 187      |
|                                    | —      | —        |

It may be here shortly noticed that from my early statistics of the Infirmary, the admissions at all periods of life, from infancy to old age, during six months, from 1st July to 31st December inclusive, were as follows:—

|   | Admitted. | Died. |
|---|-----------|-------|
| 1. Diseases of digestive organs -         | 104       | 29    |
| 2. „ respiratory „ -                      | 166       | 63    |
| 3. „ circulatory „ -                      | 58        | 7     |
| 4. „ genito-urinary do. -                 | 54        | 5     |
| 5. „ locomotive „ -                       | 190       | 5     |
| 6. „ <i>Nervous System</i> -              | 136       | 20    |
| 7. „ skin -                               | 571       | 6     |
| 8. „ system generally, }<br>fevers, &c. } | 178       | 11    |
|   | —         | —     |
| Total - - -                               | 1457      | 146   |
|   | —         | —     |

The diseases of the brain and spinal cord (Class 6, Nervous system) were at the rate of 93·3 per 1000.

\* Cruveilhier has stated that one-third the infants who die shortly after birth in La Maternité die from meningeal apoplexy, which disease is beautifully delineated in his “Anat. Pathol. Quinzieme,” Liv. pl. 1.

Diseases of the chest (Classes 2 and 3) at the rate of 153 per 1000.

Diseases of the abdomen (Classes 1 and 4) at the rate of 108.5 per 1000 admissions.

More than half of the deaths in the 2nd class (diseases of the respiratory organs) were from pulmonary consumption.

In the 7th class (diseases of the skin) an epidemic of measles broke out amongst the children in the workhouse in July and December, which accounts for the large number admitted to the Infirmary, several of whom died from pneumonia.

From diseases of the *nervous system*, to which I now more particularly wish to refer, of 136 admitted 20 died, or 1 in 6.8. Autopsies were made in 13; in two of these an unusually large quantity of fluid was found in the cerebral ventricles, and enlargement of the heart and kidneys; in 6 apoplexy; in 3 paralysis, with remains of old effusions and other cerebral lesions. It may be interesting here to observe that the true nature of the colouring matter in the site of old apoplectic effusions in these cases was for the first time explained by the late Dr. Davy, who found it to be peroxide of iron.

There was in one an ossific growth from the inner table of the frontal bone with atrophy of the grey cerebral substance, and in one case (60), which shall be placed to follow with the other infirmary cases, a carcinomatous tumour.

Amongst the foregoing admissions the mortality was highest at the early and the late periods of life, under one year amounting to 20 per cent. From 5 to 20 years, the mortality was lowest, being only  $1\frac{1}{4}$  per cent.; from 20 to 60 it was from 11 to 14 per cent.; from 60 upwards 25 per cent. The oldest death recorded was that of a female aged 99 years.

Statistical reports of the St. Marylebone Infirmary were published from time to time in the "Lancet" and "Edinburgh Medical and Surgical Journal." I shall here briefly refer to one for 1846. The population of the parish at the previous census in 1841 was 139,454; the proportion of persons receiving relief as paupers in 1846 was 1 in 139. The numbers of each sex, the seasons of year, age at four periods, and the result, are shown in the different classes of disease, in the cases admitted to the Infirmary in 1846. The following is an abstract:—



| DISEASES.                                    | Males. | Females. | Total. | RESULT. |                                  |     |           |
|--|--------|----------|--------|---------|----------------------------------|-----|-----------|
|  |        |          |        | Recov.  | Rel.                             | In. | Died.     |
| Digestive organs ...                         | 60     | 103      | 163    | 115     | 16                               | 5   | 1 in 6    |
| Genito-urinary do....                        | 25     | 84       | 109    | 71      | 18                               | 4   | 1 in 6·8  |
| Respiratory do. ....                         | 177    | 165      | 342    | 94      | 79                               | 27  | 1 in 2·4  |
| Vascular system, }<br>heart, &c. .... }      | 47     | 52       | 99     | 26      | 24                               | 5   | 1 in 2·2  |
| Nervous system .....                         | 137    | 165      | 302    | 62      | 61                               | 119 | 1 in 5    |
| Diseases of eye .....                        | 10     | 11       | 21     | 17      | 1                                | 3   | —         |
| Locomotive organs }<br>and cellular tissue } | 166    | 148      | 314    | 178     | 44                               | 40  | 1 in 6    |
| Skin diseases .....                          | 37     | 129      | 166    | 154     | 9                                | 2   | 1 in 166  |
| Eruptive fevers .....                        | 46     | 56       | 102    | 85      | 4                                | —   | 1 in 7·8  |
| Fever .....                                  | 80     | 132      | 212    | 195     | —                                | —   | 1 in 12·4 |
| Destitution .....                            | 8      | 13       | 21     | 3       | 18                               | —   | —         |
| Parturient women ...                         |        | 240      | 240    | 240     | { 69 married }<br>{ 171 single } |     | —         |
| Total .....                                  | 793    | 1298     | 2091   | 1240    | 274                              | 205 | 1 in 5·8  |

As regards the *nervous* system, the number of incurables is remarkable, amounting to more than half the total number.

Of the 2091 admissions from all diseases, 302, or less than one-seventh, was from diseases of the nervous system, and about a fourth of these was formerly reckoned as due to functional derangements, including insanity. The rapidly increasing numbers of, and vast expenditure of late years for, insane paupers are so amazing as to tempt one to exclaim, like Dominic Sampson, “prodigious,” “prodigious,” “prodigious.”

Before giving a narrative of the 36 cases, it may be stated that 22 of them occurred in the infirmary, and have been published in Nos. 171 and 172 “Edinburgh Medical and Surgical Journal,” with other cases of organic disease of the brain. Tuberculous tumours of the brain are not uncommon in children, and the young seldom become insane. In 206 cases of pulmonary phthisis, there were 4 with cerebral tumours. Certain symptoms, due most probably to the size and position of the tumour in the brain, as well as to the condition of the surrounding parts, which were often in a state of softening and disintegration, were common to both classes, the sane and the insane, namely, amaurosis, paralysis, and convulsions.

As tumours of the brain are most frequently unattended with mental derangement, ought they not rather to be considered

as an accidental complication, and not as a cause of insanity? The cases which follow tend to this conclusion.

*Tumours of the Brain as they occurred in the Somerset County Lunatic Asylum.*

CASE 1.—No. 191, a porter, aged 30 years, married, two children; of a healthy family, and youngest of four. Reported to be of a jealous disposition, good tempered, and industrious; could read and write. He was in a licensed house, and had been in three months; when brought to the asylum, in a state of mania combined with general paralysis. He died 18 weeks after admission. He was violent, destructive, and noisy, with suicidal propensities; good memory, affections estranged. Pulse 90, tongue clean, skin cool, good appetite, bowels regular, fair complexion, eyes grey, staring; forehead unusually prominent—his wife subsequently stated that when young he had hydrocephalus. For some time before his mind was affected he complained of pains in his limbs; since then his conversation was about riches and great people—he fancied that he was the Bishop.

The paralytic symptoms gradually increased at the end of eleven weeks. Catheterism was required, and in two days afterwards he became convulsed and comatose; head excessively hot; bled from the temple to 7 ounces—he afterwards recognised his wife. The paralytic symptoms confined him to bed; the peculiar mouse-like smell said to attend softening of the brain was very observable in this case. For the last fortnight of his life he was unable to swallow solids, and required to be carefully fed. Autopsy 37 hours after death; body, emaciated, 79lbs.—lost 39lbs. in weight in six weeks—length 5ft. 8in.

*Head.*—Cerebritis, preternatural redness of brain, the white portion of a pinkish hue, also the corpora striata and optic thalami; about 1oz. fluid in the ventricles. The right side of medulla oblongata atrophied, and principally occupied by a canal which would admit a goose quill; on the other side was a tumour the size of a pea.

An unusual quantity of fluid in spinal canal, cysts and atrophy of upper and right side of spinal cord also; size of a bean softened above cauda equina.

*Chest.*—Redness of bronchial lining membrane.

*Abdomen.*—Organs small, pasty matter in bladder.

CASE 2.—No. 198, a carpenter, aged 54, married, with six

children. First attack; duration five months. Died eighteen weeks after admission. Reported of a kindly disposition, good temper, industrious habits; could read and write. Assigned cause, disease of the brain, delirium. In a state of mania, noisy, and very violent on admission; had been previously confined to bed for a month. Conversation unconnected and ideas wandering; memory lost and affections enfeebled; used to start up and try to get out of the window. Paraplegia, use of lower limbs partially lost. General health bad. Pulse 80, tongue white, skin cool, appetite bad, pupils dilated, amaurosis. Under medical treatment at home for a month; leeches, blisters, cold lotions, had been applied to the head, and medicine given.

Soon after admission a seton was put in the neck; in about a fortnight there was an improvement in his general health, but none in his vision. Although he made no complaint, he seemed to suffer greatly from his head, and was frequently unable to sit up, but continued to take his food until the last few days, although he was at the same time unable to remember any friend who visited him.

Autopsy 18 hours after death. Weight of the body 100lbs., length 5ft. 7in.

A tumour the size of a hen's egg in the middle third of the left cerebral hemisphere, involving the posterior portion of the *corpus striatum*, extending to the centre across to the right *corpus striatum*, a portion of which was also disorganised. The tumour was not unlike a scrofulous one, of a greenish yellow hue; there was a cyst in the upper part of it the size of the kernel of a hazel nut, containing dark yellow fluid. The other portions of the brain and spinal cord appeared natural; weight of the brain 49½ozs. Organs of chest and abdomen natural.

CASE 3.—No. 412, a farmer, aged 72, married, four children. Good tempered, kind, indulgent to his family, industrious, quite uneducated. For three months previous to his admission his mind appeared to be deranged; he was in the habit of carrying fire from one place to another without any particular object. His affections had changed towards his wife, whom he threatened; he fancied she meant to destroy him. He had divided his money with his sons. Memory good, conversation connected on ordinary subjects; health bad—ill for twelve months—had an ulcerated leg of twenty years' standing. Pulse 84, tongue white, skin cool, appetite indifferent. Died six weeks after admission. Weight of the body

118lbs., length 5ft. 11in. Dura mater unusually adherent to skull at the back part and on the right side, and also to the right cerebral hemisphere, in the posterior part of which was a firm tumour the size of a hazel nut; the cerebral veins congested with blood; brain  $44\frac{1}{2}$ ozs.

*Chest.*—Purulent deposits like tubercles on surfaces of both lungs, lower lobes hepatized—right  $29\frac{1}{2}$ ozs., left  $28\frac{1}{2}$ ozs.; heart  $11\frac{1}{2}$ ozs.

*Abdomen.*—Redness of lining membrane of the cœcum, diarrhœa.

CASE 4.—No. 753, a shepherd, aged 64, widower, five children; irritable, industrious, can read. Subject to epileptic fits for several years; in the Union workhouse the last two years. He became violent to others, was brought to the asylum, and died in twelve months afterwards. On admission bad bodily health; pulse 96, tongue white, skin hot, asthmatic, quarrelsome. Three months before death the pupils became dilated, and he became nearly blind from amaurosis. A month after, the epileptic fits became more frequent, and he would shout and swear at the nurse in the Infirmary; he required to be fed. Soon after he became filthy in his habits, and quite helpless for last fortnight of his life.

Autopsy twenty-one hours after death; body weighed 113lbs., length 5ft. 6in. Dura mater preternaturally adherent; at the posterior portion of right cerebral hemisphere was a tumour the size of a pigeon's egg, probably scrofulous, in and around it a drachm or more of a straw-coloured fluid; the arachnoid membrane in ventricles tough, and cerebral structure indurated; cerebellum and spinal cord natural. Weight of brain  $47\frac{3}{4}$ ozs.

*Chest.*—Old pleuritic adhesions, bronchial membrane unusually red; right lung congested,  $20\frac{1}{4}$ ozs.; left small, 12ozs.

*Abdomen.*—Melanosis of stomach, liver congested with blood,  $40\frac{1}{2}$ ozs., left kidney granular, small cysts on surface, 4ozs.

CASE 5.—No. 997, a baker, aged 27, single; quiet, good-tempered, industrious, can read and write. Subject to epileptic fits since boyhood; in a state of melancholia. The day before his admission to the asylum he made an attempt on his life, and wounded the trachea with a razor. Conversation incoherent, ideas wandering, memory bad, affections natural, propensities to wander from home. In a feeble state; pulse 70, tongue clean, skin cold, appetite bad, bowels regular, sallow complexion, pupils dilated. Has been under medical

treatment at home on account of epileptic fits—four or more every week, and both by day and night. His appetite improved in a few days; he was very obstinate, and twice attempted to make his escape from the asylum. Iodide of potassium was given him for some time without benefit; he had in one year as many as 248 fits by day and 45 by night. He was nearly five years an inmate of the asylum; in a comatose state, after a succession of fits, the whole day previous to the time he died.

Autopsy 13 hours after death. The body in good condition, weight 137lbs., length 5ft. 9in. Brain, unusually large and firm, 56ozs. A hard tumour the size of a pigeon's egg at the anterior and inner side of left cerebral hemisphere, above the corpus striatum; granulations on arachnoid between the hemispheres; some slight induration also in right cerebral hemisphere; some blood in spinal canal; a portion of lower lobe of right lung in first stage of pneumonia; other organs natural.

CASE 6.—No. 1,027, a stone mason, aged 73, widower, two children, ill one year, of industrious habits, stubborn disposition, and irritable, had several fits some years before, occasionally violent, incoherent, memory bad, attempted to hang himself just previous to being admitted to the asylum. In a very feeble state; placed in the infirmary, where he remained 13 months, until his death. Autopsy, 29 hours after death; weight of the body 111lbs.; length, 5ft. 5in.; dura mater unusually adherent to the skull, and to it was attached a tumour the size of a walnut, weighing an ounce; corresponding to the tumour was a depression about the middle of the left cerebral hemisphere, with softening of the brain beneath to the extent of half an inch; brain, 49 $\frac{3}{4}$ ozs.; emphysema of lungs; bony deposits on semilunar valves of heart 10 $\frac{1}{2}$ ozs.; atheromatous state of arteries; abdominal organs natural.

CASE 7.—No. 1045, male, married, aged 36. First attack, of intemperate habits in drinking to excess; ill two months from diseased brain; in a moribund state on admission.

Assigned cause of death cerebral softening and tumour in the brain.

*Head.*—Skull thick; dura mater very tense; brain unusually pale; left lateral ventricle distended with 2ozs. of fluid, some of it in cysts of various sizes from a filbert to a walnut, and occupying the central portion and closing up the right lateral ventricle, anterior to which was a firm tumour the size of a pigeon's egg; the right corpus striatum and

crus cerebri were softened and infiltrated with blood; the right cerebral hemisphere was  $4\frac{1}{2}$ ozs. heavier than the left; encephalon  $51\frac{1}{2}$ ozs.; about 5ozs. of fluid blood escaped when the spinal cord was exposed, which was firm,  $1\frac{1}{4}$ ozs.

*Chest.*—Pleuritic adhesions on left side only; congestion of blood in lower lobe; right lung, 28ozs.; left, 19ozs.; heart large, 12ozs.

*Abdomen.*—Organs above average size; in other respects natural.

Weight of the body, 146lbs.; length, 5ft. 8in.

CASE 8.—No. 1,113, a tailor, aged 45, single; admitted to asylum in a state of mania of three weeks' duration. Previously a well-disposed, industrious man; could read and write; died in  $6\frac{1}{2}$  months after his admission; disposition quite changed; he was quarrelsome and excitable; memory bad; pulse, 84; tongue clean; had retention of urine a week before his death, requiring catheterism; four days afterwards was seized with apoplexy, but without losing consciousness; died three days afterwards.

Autopsy 20 hours after death; weight of the body 96lbs.; length, 5ft. 4in.; the dura mater strongly adherent to skull, of a red colour, cerebral veins congested with blood. In the right cerebral hemisphere was a depression beneath the brain, which would contain a "cob-nut," softened, of a grey colour; in the centre of the softening was a small hard white substance, the size of a split pea; cerebral structure unusually firm; brain, small— $39\frac{3}{4}$ ozs.; blood effused on cerebellum; spinal cord, natural— $1\frac{1}{4}$ oz.

*Chest.*—Pleuritic adhesions, emphysema—right, 20ozs.; left, 18ozs.

*Abdomen.*—Organs healthy.

CASE 9.—No. 219, a female nurse, aged 57, widow; had been ill six months; when admitted, in quite a helpless condition; only a fortnight before her death, in a state of general paralysis and dementia; daughter had recently been discharged from the asylum recovered.

Autopsy 22 hours after death; skull, unusually thick; a fatty and fibrous tumour about the size of a pigeon's egg, proceeding from the upper portion of the medulla oblongata and crura cerebri in front of the right corpus striatum; in the outer part were little nodules and bladders filled with yellowish, glairy fluid. Mr. Gulliver found, by microscopic examination, atheromatous matter and cholestrine crystals in the tumour; the cerebral ventricles were dilated, and

there was about 4ozs. of fluid in them and in spinal canal.

Weight of the brain  $39\frac{3}{4}$ ozs.

*Chest.*—Congestion of blood in lower lobe of right lung, 20ozs. Kidneys, small; other abdominal organs natural.

CASE 10.—No. 411, a labourer's wife, aged 50, 12 children, second attack, five years' duration: first attack, 27 years before, after the death of her mother, who was drowned; had become blind from amaurosis six months before her admission; complains of pain in the back of the head; attempted to commit suicide; memory good; her conversation not always but generally rational. Noisy and incoherent after two epileptiform convulsions five weeks after admission; health indifferent, pulse 90, skin cool, tongue white, had diarrhœa; motion slow and imperfect; confined to bed for a fortnight before death, and for the last week the pulse was almost imperceptible, and she could only swallow fluids; skin cold; breathing short and hurried.

Autopsy 20 hours after death; weight of the body, 77lbs.; length, 5ft. 2in.; dura mater unusually adherent to the skull, at the back part over the right cerebral hemisphere; white softening of a portion of the hemisphere the size of a pigeon's egg, and below a red and firm fungoid tumour the size of a filbert; beneath the corpora quadrigemina a yellowish, rusty coloured deposit; the remains of blood extravasated; fatty degeneration of some of the arteries. The late Dr. Davey found the colouring matter in similar deposits to be peroxide of iron; both optic nerves wasted; weight of the brain  $46\frac{3}{4}$ ozs.\*

*Chest.*—The lower lobe of the right lung in the first stage of pneumonia; weight, 18ozs.; left lung healthy—11ozs.; heart very much enlarged— $14\frac{3}{4}$ ozs.

Abdominal organs natural.

\* In the white softening Mr. Gulliver found, on microscopic examination disintegration of internal structure, apparently of old standing, but no exudation corpuscles, nor anything like products of recent inflammation. Probably the softening might have been contemporaneous with the extravasated blood. Some minute blood vessels of the pia mater had their coats in some places thinned, and generally in a state of fatty degeneration, such as is the most common cause of enlargement and rupture of blood vessels, great and small, and all the fearful consequences thereof. This morbid change is, indeed, the most important immediate cause of the *ageing*, degeneration, or wearing out of the tissues; and whoever should discover the means of preventing this fatty degeneration will be the discoverer of a great step in preventing the effects of old age. Mr. Gulliver never examined an apopleptic effusion carefully that he did not find the blood vessels weakened from fatty degeneration, and in aneurism of the great arteries it is the same.

CASE 11.—No. 880, a charwoman, aged 66, married; first attack, and of two months' duration; under treatment in the asylum more than seven months; reported to be obstinate, violent occasionally, and of indolent habits; for the last eight years she has been in and out of the union workhouse; in a state of melancholia on admission, under the delusion that she had destroyed her children, and with suicidal propensities; memory bad; health indifferent; pulse 80; tongue white; skin cool; appetite bad; motion slow and languid. Within three months appetite had improved; she became noisy at night; was ordered sedatives, and was placed in a single room. A month before her death she had diarrhoea, which continued; she soon became too feeble to leave her bed. No change took place in the state of her mind; she answered questions sensibly, and seemed aware of her approaching end.

Autopsy 22 hours after death; the body emaciated; weight, 72lbs.; length, 5ft. 2in.; on the surface at the back part of the right cerebral hemisphere, close to the falx, was a small tumour (scrofulous), size of a pea, to which the pia mater was adherent. A similar tumour was found at the lower portion of the anterior lobe of right hemisphere, and in the same hemisphere a third tumour, embedded in grey substance of the corpus striatum, external to the white central fibres (preserved); weight of brain, 46½ozs.

*Chest.*—Old pleuritic adhesions, cicatrix, with earthy deposit in apex of right lung, probably the remains of an old tubercular cavity; right lung, 11ozs.; left, 7½ozs.; heart, 7ozs.

*Abdomen.*—Intestines unusually contracted; organs small; in the psoas muscle, behind the right kidney, was an abscess extending to Poupart's ligament, but not into groin, containing three-fourths of a pint of dark coloured fetid fluid.

CASE 12.—No. 904, sailor's wife, one child; first attack, probably of two years' duration; was only admitted three weeks before death. Complained of vertigo and pain in head, also of pain in abdomen; had been a patient in Bridgewater Infirmary for 12 months, for abdominal swelling, accompanied with sickness and vomiting; sees fire before her eyes; sleepless at night; about two years ago she was excommunicated from the Baptist Chapel for a short period; she has been low spirited and given to crying since. In a state of melancholia attempted suicide by hanging, and threatened to kill herself with a razor and drowning; fancies that her soul is lost; memory good; affections natural; motion perfect; health indifferent; pulse 78; tongue



white; skin cool; appetite indifferent. A week after admission had a severe apoplectic fit, was much convulsed; had a second fit two days afterwards, which rendered her so helpless she had to be lifted in and out of bed. She gradually fell into a comatose state.

Autopsy 26 hours after death; weight of the body, 105lbs.; length, 5ft. 5in.; dura mater tight and stretched to an unusual degree; surface of brain dry, smooth, shining, unctuous at outer and back part of left hemisphere; the dura mater was adherent by a fleshy coloured process the thickness of a quill, beneath which was a tumour in cortical substance the size of a pigeon's egg; beneath and internal to this the medullary portion of back of hemisphere was soft and of a creamy colour, the septum lucidum and interior of left ventricle also softened, and contained nearly  $\frac{1}{2}$ oz. clear fluid; left cerebral hemisphere 2ozs. heavier than right; medulla oblongata and pons varolii softened and infiltrated with blood; weight of brain  $45\frac{3}{4}$ ozs.; spinal cord, natural—1oz.

*Chest.*—Posterior portion middle lobe right lung in first stage of pneumonia,  $21\frac{1}{4}$ ozs.; bronchial lining membrane of left lung red—14ozs.; left ventricle of heart thickened— $10\frac{1}{2}$ ozs.

*Abdomen.*—Organs generally healthy; two fibrous tumours, one on each side of uterus the size of an orange, a cyst in broad ligament on right side, containing about  $\frac{3}{4}$ ozs. of pus.

*Cavities in the inner table of the skull, corresponding to openings in the dura mater, through which small portions of the white or medullary portion of the brain projected from the centre of the left cerebral hemisphere; apoplexy.*

CASE 13.—No. 460, a widow, aged 67. First attack, of four months' duration. In bad health; pulse 100; tongue white, skin hot; with suicidal propensities; motion unsteady. Melancholia and general paralysis; disinclined to take food at first. After a month her appetite had improved. In six weeks the paralytic symptoms were so much worse she was unable to stand without support; soon after she was altogether confined to bed. She died five and a half months after her admission. Inspection 26 hours after death. Deep indentations in the inner table of the skull. Opposite to these, not the usual enlarged pacchionian bodies, but in two or three places, and one particularly, projecting a quarter of an inch through the *dura mater* was a small portion of the white or medullary portion of

the brain, which when cut into was found to be continuous with it from the upper and centre of the left cerebral hemisphere. The structure of the brain was studded with red dots, interstitial or capillary apoplexy, particularly at the centre. The right lateral ventricle was filled with fibrine, which was pale and adherent. The right hemisphere was one and a half ounces more than the left; encephalon 46 ounces. Atheroma of cerebral arteries; spinal cord partly softened.

*Chest.*—Lungs natural; heart large, 10 ounces; abdominal organs natural.

*Bone from dura mater embedded between the convolutions on middle of right cerebral hemisphere. Death from pulmonary phthisis.*

CASE 14.—No. 288, a needlewoman, aged 62, single. First attack; five years insane; restless and noisy at night; incoherent; in a state of *dementia*. Bodily health indifferent; pulse 90; tongue clean, skin cool. She was an inmate of the asylum for more than five years. She continued in the same state with little variation; employed sometimes, at others idle and noisy. She was subject to cough, and became more feeble, and it was found that she had pulmonary phthisis; she refused to take any medicine; had wine, eggs, arrowroot, &c. She disliked being in bed, and sat up so long as her strength would permit. Her death was accelerated by diarrhoea. Inspection 40 hours after death; body excessively emaciated, 56 pounds; length, 5 feet. Head small, circumference 20; antero-posterior and transverse measurements each 12 inches, cerebral being congested with blood. Attached to the *dura mater*, over the middle of the right cerebral hemisphere, was a piece of true bone, weighing  $6\frac{1}{2}$  grains. A corresponding depression in the brain; encephalon,  $33\frac{1}{2}$  ounces. Spinal cord natural, 1 oz.

As regards the bone, Mr. Quekett states it “is true bone, containing corpuscles and Haversian canals like the bone of the extremities. I have never but in one instance seen such a thing from within the cranium, and this was attached to the falx. I should like to keep it with its history.”—Royal College of Surgeons, Jan. 18, 1853.

*Chest.*—Tubercular cavities in apex of left lung, closing tubercles in right lung. Heart small.

*Abdomen.*—Redness in membrane; small intestines.

In the supplement to the second edition of "Abercrombie on Diseases of the Brain," about fifty cases of tumours of the brain are recorded from various sources; they were usually attended with headache, frequently with vomiting, impaired vision, sometimes with palsy, coma, convulsions, and often terminated suddenly. It is remarkable in how few was any impairment of the mental faculties, with the exception of six, who were also subject to epilepsy.

In relation to the species of palsy known as paraplegia, the same authority remarks on "the uncertainty which attends cases of paraplegia, from the circumstance of there having been in general no examination of the spinal cord; and perhaps it may still be considered as a point not absolutely ascertained, whether disease in the brain produces paraplegia without any affection of the cord."

My object in quoting the foregoing is to draw attention to the fact that in general paralysis of the insane, on which subject I wrote in this Journal a few months ago, paraplegia, as evidenced by the staggering, uncertain gait, is one of the most marked and characteristic symptoms. I have always in *post mortem* examinations inspected the spinal cord, and since 1849 have frequently, in the annual reports of the Asylum, especially noticed the diseased condition of that organ in cases of general paralysis. The fact being now authenticated by German authority, as appears from the current October number of the "Journal of Mental Science," will probably meet with more general recognition than it has hitherto received from the medical profession of this country.

In the first of the cases here briefly recorded of general paralysis, combined with mania, and having the usual exalted ideas observed in that disease to a remarkable extent, it was observed that for some considerable time before the mind became deranged the patient complained of pains in his limbs. The *post-mortem* appearances would seem fully to account for the symptoms and progress of the disease in this case. The small tumour on the right side of the medulla oblongata was probably the cause of those pains, as well as of the subsequent disease in the upper part of the spinal cord and paralysis, finally terminating in cerebritis and acute mania; so far confirming the statement I have long since made, that in general paralysis of the insane, where the spinal cord becomes first diseased, the paralysis *precedes* the mental derangement.

There is a second case (9), the first of the six in females,

of general paralysis combined with dementia, admitted only a few days before death. Of the history but a meagre account was obtained. A large, fatty, and fibrous tumour from right crus cerebri and medulla oblongata, and a very considerable amount of fluid in base of skull and spinal canal. This was an example of an opposite case, in which the disease commenced in the brain and extended towards the spinal cord, and in which the mental derangement was chronic.

*(To be continued.)*

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*On Larceny, as committed by Patients in the earlier stages of General Paralysis.* By J. WILKIE BURMAN, M.D., Edin., Deputy Medical Director, West Riding Asylum, Wakefield.

Having recently admitted into the West Riding Asylum no less than three general paralytics, who either came from prison, or had undergone imprisonment not long previous to admission, on account of the commission of larceny; and being of opinion, considering the stage at which, in each case, the disease had arrived on admission, that its commencement must have dated prior to the commission of the crime;—I have been led to make further enquiry as to these and other similar cases which have occurred within the experience and recollection of the present medical officers of the West Riding Asylum. The result is, that I am now enabled, by the kind permission of Dr. Crichton Browne, to record short details of six cases of general paralysis, all males, and admitted during the last four years, in which it appears to me the commission of the crime was a manifestation of the earlier mental symptoms of the disease. Such being the case, the patients ought not to have been held responsible for their actions. I feel it, therefore, a duty, to call the attention of medical officers of prisons, and “all whom it may concern,” to these facts, and to urge upon them the necessity of instituting a more searching enquiry into the mental condition of such cases, and also of cultivating a more extended acquaintance with the symptoms—especially the earlier ones—both mental and physical, of that very common and peculiar disease usually termed “general paralysis of the insane;” and this I would do in no dictatorial

spirit, for I am well assured that those to whom my remarks are addressed are susceptible to the influence of that humane sentiment which leads us to shrink from inflicting punishment for crime committed by persons who are of unsound mind and consequently not legally responsible for their actions.

Considering the exalted ideas as to wealth and property, and the acquisitiveness, so well known by all alienists to be common amongst general paralytics, *larceny* is, above all, *the* crime we should suppose them most capable of committing. If a man be under the delusion that the whole world, with all that therein is, belongs to himself, or if, by reason of mental disease, his ideas of *meum* and *tuum* be perverted, or the latter absorbed in the former—a condition of things not at all rare with patients suffering from general paralysis—then there need be no surprise at his acting in accordance with his own peculiar views, nor will it seem to him wrong to take that which we know to be another's, but which he believes to be his own property.

And, though larceny is the most common offence against the law committed by patients in the earlier stages of general paralysis and still at large, yet it is not the only one; for I very well recollect the case of a general paralytic who was admitted into the West Riding Asylum not long ago, and is still living, whose first strange *act* was the pulling down of a neighbour's orchard wall, whilst under the delusion that he was effecting alterations and improvements on his own estate; and, continuing to bear in mind the peculiar and exalted nature of the delusions of general paralytics, we can conceive a still further variety of offences, both criminal and civil, which it is possible for them to, nay certain that they would, commit, were they allowed to do so.

In one of the cases (5985), shortly to be described, the nature of the articles stolen was in clear and intimate relation with the principal delusion of the patient, as expressed after his admission into the asylum, viz. :—That he had £1,200 in the Joint Stock Bank, and that he was going to give a grand dinner party to his friends, and “treat them to some fine old port.” The form the larceny assumed in his case was the stealing of some wine glasses from an hotel, and, being convicted of this, he was sentenced to twelve calendar months' imprisonment; three weeks after the expiry of which time—having, in the *interim*, wandered about

the streets of Bradford in a neglected condition, and with his pockets full of all sorts of rubbish—the poor man was admitted into the West Riding Asylum, suffering from advanced general paralysis, and he died, three months after admission, in the last stage of that disease.

In the other cases, no such distinct relation between the nature of the theft and the delusion, as expressed on admission of the patients into the asylum, could be made out; and this was due, in one case (5759), to the fact that by the time the patient was admitted into the asylum a state of fatuity had supervened; but in all either the previous good character of the patient, the absence of any attempt at secrecy during the commission of the crime, or evasion of it afterwards, or the want of rational and adequate motive, was in favour of the view that the patients had become alienated: whilst the progress which, in every case, the disease had made on admission, warranted the opinion that it must have commenced before, or about the time that, the crime was committed.

In one case (6130), the disease was sufficiently well marked at the time of the conviction for larceny to attract the attention of—strange to say—a barrister—Mr. J. H. Balfour Browne, who was present in court at the time, but who has, it must be admitted, for a barrister, had unusual facilities for becoming acquainted with the symptoms of general paralysis. For I recollect very well that, on the evening of the day on which this patient was committed to prison, Dr. Browne, in the course of a conversation, informed me his brother had just told him that during the day a “poor G. P. had been convicted of theft, and sent to gaol;” and sure enough, five months later—and before his term of imprisonment had expired—this very man was brought to the West Riding Asylum, suffering from well marked general paralysis. Surely this demonstrates the great need there is for a more careful scrutiny of the mental and physical symptoms in cases of this kind *on their admission to the prison*; for we have every reason to believe that this patient was insane, not only at the time he committed the theft, but during the whole period of his imprisonment, and yet we are not aware that before there was some outrageous manifestation of it, the disease had attracted the attention of the medical officers of the prison.

Having no desire to be personally discourteous, and wish-

ing only to call attention to this subject in its general bearings, I shall, for obvious reasons, refrain from mentioning names of places in the details of cases which I am now about to present.

*Case 1.*—No. in Register 6232 ; ætat 40. Admitted October 12th, 1872, with well-marked physical symptoms of general paralysis and exceedingly exalted ideas and notions, imagining that he was Engineer-in-Chief to the Universities of Oxford and Cambridge, and all other Universities in the world, that he was an Officer in the Royal Navy (being, at the time of admission, attired in a *quasi*-naval uniform which he had had made in ———), that he had “brought out an invention for diving down into the sea and bringing up jewels,” and that he could get £1,000,000 whenever he liked. *History.*—In February last, having previously borne a good character for honesty, patient openly, and during the day, attempted to commit a robbery in a silversmith’s shop at ———, and was handed over to the police; for this offence he was tried, convicted, and sentenced to three calendar months’ imprisonment. Patient was formerly a mason, but, for four or five years previous to admission, he followed the occupation of a pipe-fitter, &c., and, for several months previously, he had been in the habit of sending in queer and extravagant bills to people for work he was under the delusion he had done for them, which were not granted much attention. His going about, however, clad in the *quasi*-naval uniform I have already referred to, and other extravagant actions, drew down upon him the notice of the authorities, and, having threatened to murder his wife and some other relatives, he was captured and certified.

Since admission he has raved in the most grandiose style, and he is now in a state of ‘paralytic furor.’

*Case 2.*—No. in Register 6191 ; ætat 47. Admitted September 24th, 1872, with well-marked physical symptoms of general paralysis, and in a considerably demented condition; but talking vaguely about some money which he believed would revert to him from his father and uncle, and which, he said, had been in Chancery for a long time, and might amount to £1000. *History.*—On the 13th May, 1872, about four months previous to admission, patient was tried at the ——— Sessions for stealing two wheelbarrows and 12 cwt. of coals, and being found guilty, was sentenced to six calendar months’ imprisonment. At the expiry of four months of this time, patient had to be brought to the Asylum, having been in the hospital of the prison “occasionally” during the period, “on account of some slight bodily ailment,” and having been during the last three weeks of his imprisonment very violent and unmanageable—requiring to be restrained by means of a straight-jacket and put in a padded room. His wife informed me that she had noticed a change in her

husband for about two years before admission, during which time he had been liable to paroxysms of excitement during the day, and restlessness at nights. She also stated that he went and took the coals in open daylight, and without any attempt at concealment, and that there was no need for his doing so, because both he and his family were in "comfortable circumstances." Patient had never been in prison or dishonest before, and had "never lost any work through drunkenness," though he had, "at times," drunk a "lot of beer." About 18 years ago, patient had sustained a severe injury to the head, a block from a crane falling upon it and inflicting a severe scalp wound, so that he was insensible for three hours, and was laid up for 16 months afterwards, during the whole of which time "he was blind." The blindness disappeared, however, after treatment at one of the Manchester Hospitals, and patient resumed work. Patient has got rapidly worse since admission.\*

*Case 3.*—No. in Register 6130; *ætat* 45. Admitted April 24th, 1872, with well-marked physical symptoms of general paralysis, and exalted ideas:—such as that he was the greatest and tallest man in the world, and had begotten 16,000 children, &c. *History.*—About five months before admission, patient was committed to gaol for larceny—stealing several gallons of oil—and he remained in gaol up to the time of his removal to the West Riding Asylum. Whilst in prison, he was wet and dirty in his habits. The first symptoms of insanity appear to have come on about a month before he committed the larceny. He had always been respectable and honest before, and not addicted to intemperance. He is getting rapidly worse and is now in the last stage.

*Case 4.*—No. in Register, 5985; *ætat* 39. Admitted June 9th, 1871, with well-marked physical signs of general paralysis, and exalted ideas—such as that he had £1,200 in the Joint Stock Bank, and was going to give a grand dinner party and treat his guests to "some fine old Port;" having been, for the twelve months ending 18th May previous, in the — House of Correction, for stealing some wine glasses† from the Queen's Hotel. When asked, after admission into the Asylum, why he stole the wine glasses, he said he

\* I have frequently talked to this patient, since admission, about the coals; but I cannot ascertain that there is any particular delusion as to that, at present, valuable commodity. *Apropos* of coals, however, and of a relation between the delusion and the theft, I may, perhaps, state here that we have, at present, under our care, a general paralytic whose chief delusion is that he is possessed of 10,000,000 tons of coals—a delusion which, thanks to the continued use of the Calabar Bean, he has been enabled to enjoy the pleasure of for several years. Supposing *that* patient to be out at the present time, the disease, as in case 6130, not having been recognised, and not observing much coal in his house, would we be "surprised to hear" of his going and laying in a stock from the nearest coal-heap? I trow not; nor would it be right that he should suffer imprisonment for doing so.

† It is not recorded whether he took anything else or not.



did it for amusement. A week before admission (about a fortnight after his discharge from gaol) he was found in the Market-place of —, with his pockets filled with all sorts of rubbish—such as pieces of paper, bits of broken glass, fragments of a brass chandelier, &c. There was no assigned cause for his disease, and he had always been a steady and respectable man before he committed the theft. He died, September 24th, 1871,—about three months after admission—in the last stage of general paralysis, the immediate cause of death being sloughing of the leg.

*Case 5.*—No. in Register 5759; *ætat* 37. Admitted April 2nd, 1870, with well-marked physical symptoms of general paralysis, being also very much demented, and having a voracious appetite. Fifteen months before admission, he stole a piece of cloth from the — Railway Station, and, being convicted of the theft, was imprisoned in the — House of Correction for three months. On and after leaving the prison, he led the life of a vagabond, and went about the streets picking up rubbish, until at last his conduct became so strange that he was taken up and certified. There is no history of intemperance or previous crime. Three years previous to admission, he fell from a building and injured his head, and after that became unable to work. He is now in the last stage, and cannot live long.

*Case 6.*—No. in Register 5510; *ætat* 43. Admitted March 12th, 1869, with well-marked physical signs of general paralysis and exalted ideas—such as that he had £8000 in the Bank, &c., having, not long before admission, been sent to prison for stealing nuts. There is no history of intemperance or previous crime. He has progressed slowly since admission; but has recently had several epileptiform attacks, and is now getting rapidly worse, so that it does not appear that he will long survive.

Such, then, are six cases illustrating the circumstances under which larceny may, in some instances, be committed; and I may, perhaps, just add what seems to me to be another case of a similar kind. I extract it, *verbatim*, from the “police news” of a recent Wakefield newspaper:—“Joseph Entwhistle, who was described in the calendar as a joiner, and *forty-five years of age*, was charged with stealing a pair of stockings, the property of the guardians of the Huddersfield Union, at Almondbury. It appears that the prisoner *had been a pauper at the workhouse*, and, thinking, perhaps, that exchange was no robbery, made off with the clothes mentioned in the count, and left his own behind. The defendant *had been in India some time, and his speech had been very much affected by two paralytic strokes*. The jury returned a verdict of guilty, with a recommendation to mercy, and the court

sentenced him to one month's imprisonment." I may be mistaken about this case, and admit the facts are meagre; but I think the parts in italics justify a suspicion that the man has general paralysis. He is in gaol at the present time, and I should not be surprised if he were sent to the asylum one of these days.

I trust it will not be considered that I wish to attach any stigma to the medical officers of the prisons who failed, from some cause or another, to detect the disease in the above instances soon enough to prevent unjust punishment, and who number amongst their ranks many men, such as Mr. James Bruce Thompson, of the General Prison, Perth, who are in the habit of paying particular attention to the mental symptoms of all prisoners, both at the time of their admission to prison and subsequently, and who are quite as well acquainted with mental diseases and their symptoms as most alienists. Far be it from me to do so; yet at the same time, and on behalf of poor prisoners such as above described, they may not, perhaps, be offended at my calling their attention to these six cases, and entreating their more careful observation of those very palpable signs of general paralysis—tremulousness of the tongue and voice, indistinctness or hesitancy in articulation, and twitchings of the facial muscles—which are amongst the first physical symptoms of that disease, and seldom fail to attract the attention of alienists at the first audience and glance; and, whilst it is unnecessary for me to enter into the question of the differential diagnosis of general paralysis, yet I may venture to remind them that a further inquiry into the history and mental condition is absolutely necessary in these cases, in order that the symptoms may not be confounded with those of a similar nature, due to excess in the use of alcoholic stimulants, and those of other diseases which resemble general paralysis so far as the physical symptoms in the earlier stages are concerned. At the same time I am convinced, for the reasons before stated, that the disease in each of the foregoing six cases must have been diagnosed, without any very prolonged examination, at the outset of the term of imprisonment by any medical man who had even the most rudimentary knowledge of the symptoms of general paralysis; and, in one case, as I have already stated, the disease was actually diagnosed (the diagnosis being subsequently verified) by a bystander in Court, and he not even of the medical profession; and one fails

to see how it can be otherwise, until a knowledge of mental diseases and some experience of them is demanded of every candidate for a degree or diploma in medicine. The recognition of this want is daily, I am glad to observe, becoming more practical, and I may not, perhaps, be considered visionary, if I venture to express my belief that the necessity for a special knowledge of mental diseases and obliquities, will, in the cases of those medical men who have to do with our criminal population, ere long demand the careful consideration of the proper authorities.

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*The Shower-bath in Insanity.* By JOHN A. CAMPBELL, M.D.,  
Assistant Medical Superintendent, Garlands Asylum,  
Carlisle.

*(Read at a Quarterly Meeting of the Psychological Society, held at the Royal College of Physicians, Edinburgh, November 21st, 1872.)*

At a meeting of a Society such as ours, where everything which has the remotest tendency to promote or aid the recovery of patients who labour under mental alienation, becomes an object of interest, I feel no hesitation in bringing forward a short paper on the use of cold water applied to the human body in the form and much after the same fashion as that in which nature finds it most beneficial to the vegetable kingdom.

In case, from the title of my communication, any one may take up the erroneous impression that I advocate the use of shower-baths which pour buckets full of water per second on the heads of miserable patients, I shall begin by giving a short description of the shower-bath in use at Garlands. I shall then give an analysis of the cases which have been treated by the shower-bath in the ordinary practice of the asylum while I have acted as Assistant Physician in it, with the remarks that seem to be suitable or warranted by the changes noticed in the different cases.

I have no doubt that at first sight objection may be taken to the mode I am about to adopt in treating this subject, in that it is one unlikely to give trustworthy results, on account of the treatment having only been used in certain cases, and on preconceived ideas; but I think most medical men will bear me out in the opinion, that the analysis of a

number of cases treated by any particular method is not only beneficial as a guide for one's own use in future practice, but also may be made to a certain extent available in forming general conclusions as to the class of cases in which benefit may be justly looked for.

*Description of Bath.*—There are four shower-baths in the Asylum, two in each division, and of the four, two of each are similar. I shall only describe the one in which the fall of water is greatest as regards quantity and height of fall. It is a closed bath, 26 inches in diameter inside; height from floor to roof,  $9\frac{1}{2}$  feet; the perforated zinc plate through which the water falls being circular, and 14 inches in diameter. The total quantity of water which falls in the bath during a minute is nine gallons; and the amount which falls on a man's head 22 inches in circumference at a height of 5 feet 8 inches from the floor during that time is four gallons.\*

*Analysis of Cases.*—I have gone over the daily returns, in which every shower-bath given each day is noted, collected the names, and have analysed the cases which have been treated by this method between the first of February, 1867, and the first of October, 1872, noting the following particulars:—

1st.—Number treated.

2nd.—Length of time under treatment.

3rd.—Mental state of those treated, and changes noticed while under treatment, viz.:—

(a.) Recovery.

(b.) Improvement in bodily and mental state.

(c.) Improvement in bodily state alone.

(d.) No effects.

(e.) Bad effects.

4th.—Age of those treated.

1st.—I find that 118 patients have been under treatment, of whom 51 were males and 67 females.

2nd.—The duration of each bath never exceeded in the cases of the females half a minute, in the cases of the males one minute, and in many cases only a few seconds for the first two or three baths. The periods of time during which they were treated varied from a few days in cases where ill effects were noticed, to six months, a year, and in one case two years. In the majority of the cases the treatment was

\* The shower-baths in this Asylum are kept locked except when in use, the head attendants keeping the keys, and giving the baths when ordered by the medical officers.

continued from one to four months. I need hardly mention that the patients got the bath immediately on getting out of bed in the morning.

*Mental State.*—I find that the cases, to render them intelligible, must be placed under as many as seven headings.

*The First heading* consists of a class of cases which had Insanity of Puberty, Masturbation, Hysterical Mania, or some form of insanity referable to the sexual system. Under this heading I find 35 cases—19 males and 16 females: of the former 13 recovered, 2 improved in body and mind, one improved in bodily health alone, and in 3 ill effects showed themselves. Of the latter, 10 recovered, 2 improved in bodily health and mental state; in 2 there were no effects noticed, and in 2 ill effects appeared.

*The Second heading* consists of Puerperal Insanity. I find 19 under this heading, in all of whom recovery took place.

*The Third.* Periodic Idiopathic Mania. Consists of 8 cases, 5 males and 3 females, of whom 2 of each sex recovered, 2 males improved in bodily and mental health, one male improved in bodily health alone, and in one female no effects were noticed.

*The Fourth.* Chronic Idiopathic Mania. Consists of 35 cases, 19 males and 16 females. One male and one female recovered, 3 males and 5 females improved in both body and mind, 10 males and 2 females improved in bodily state alone, and in 5 males and 8 females there were no effects noticed.

*The Fifth.* Melancholia. Consists of 9 cases, 5 males and 4 females, of whom one male and one female improved in bodily health and mental state, one female in bodily health alone, and in 4 males and one female no effects were noticed; and in one female ill effects appeared.

*The Sixth.* Dementia. Consists of 5 cases, 2 males and 3 females, and of these I find that one female improved in both body and mind; one of each sex improved in bodily health alone, and in one of each sex no effects were noticed.

*The Seventh.* Congenital Imbecility. Consists of 7 cases—one male and 6 females—of whom I find that improvement in body and mind took place in one male and 2 females; improvement in bodily health alone in 2 females, and in 2 females no effects at all were noticed.

*Bad Effects.*—In two young lads pneumonia occurred while they were getting shower-baths. They had both weakened their systems by masturbation, and were doubtless specially

susceptible to the effects of cold. I may mention that they both recovered. In another youth bad headache was caused.

In the cases of four females certain bad effects were noticed. One had severe headaches after the bath, one caught an ordinary cold, and in one menorrhagia was markedly produced by the treatment. In one other case in which good otherwise resulted from the use of the bath, after it had been in use for a considerable time it began to cause menorrhagia. While mentioning the effect of the shower-bath in causing menorrhagia, I may also mention that in three cases in which this disorder existed to a marked extent before the baths were used, an entirely different effect was observed while they were in use, the catamenia becoming quite normal.

Such an occurrence as a patient fainting, or any bad effects other than those mentioned have not been observed.

4. *Age.*—Of the 51 males 8 were under 20 years of age, 8 between 20 and 25, 13 between 25 and 30, 7 between 30 and 35, 4 between 35 and 40, 4 between 40 and 50, and 7 between 50 and 60.

Of the 67 females, 12 were under 20 years of age, 15 between 20 and 25, 20 between 25 and 30, 3 between 30 and 35, 9 between 35 and 40, 4 between 40 and 50, and 4 between 50 and 60; nearly two-thirds of the number treated were under the age of 30.

The cases under the first heading—insanity of puberty, masturbation, hysterical mania, or some form of insanity referable to the sexual system—are so conspicuous to the eye of an asylum physician that I need not at all remark in any manner upon them, except to mention that they were usually put on this mode of treatment when their bodily vigour had been improved by good food and tonics, or when, after having recovered so far, their recovery seemed to hang fire, or when they had a relapse, for which there was no obvious reason.

Those under the second heading—puerperal cases—had for the most part improved much in bodily health, but from their remaining for a longer than usual time in the dull state in which the mental faculties are clouded, and the patients unaccountably wanting in nervous energy, recourse had been had to this as a general nervous stimulant. In two of the patients, however, the reverse of this state was present, they being continuously excited and dirty in habits.

In the cases under the headings *periodic and chronic mania* the patients were in fair bodily health. The most

marked feature in their cases was that of continuous excitement, lasting for a long period, and the subduing of this was what was expected.

The cases of melancholia were put on this treatment, other modes of treatment having proved of no avail.

In the treatment of the demented and imbeciles improvement in bodily health was mainly what was expected.

Before I leave this part of the subject I may state that I found in the 118 cases that hereditary predisposition existed in 74—viz., in 31 out of the 51 males, and in 43 out of the 67 females. This seems rather remarkable, and I do not attempt to explain it in any other way than by suggesting that where a hereditary neurosis with disordered mental functions exists the body is frequently in a well developed state, and that about half of the total number of cases laboured under forms of insanity which usually occur in young people, and that cases with an hereditary predisposition have a great tendency to be found under these forms of insanity.

*Immediate Effects.*—A shower-bath of half a minute's duration causes little effect apparently on a patient, more than a slight acceleration of breathing, and a feeling to the hand of momentary cooling of the surface of the body. I noted the state of the pulse as to its frequency and character in the cases of six patients who had for some time been taking shower-baths, immediately before the bath, immediately after, and a hour and a half after it, but before breakfast. The results were so unvarying that I deemed it unnecessary to repeat the observation on more than five occasions in each case.

I found that immediately after the bath there was a very considerable increase in the number of pulsations per minute, and that the pulse felt smaller and firmer; an hour and a half afterwards, the pulse was still quicker than it had been before the bath. I have on several occasions taken a shower-bath in the bath I have described, and in my opinion the effects of the shower-bath are greatly superior to those of the ordinary cold bath; the shock is greater, and also the reaction, and the feeling of muscular activity and exhilaration of spirits, which are experienced after a shower-bath and a vigorous rubbing down, are what many people would hardly believe until they had tried it. The precautions which I think ought to be observed in prescribing shower-baths are very simple. They are—

That patients for whom shower-baths are ordered should be

in tolerably good bodily health, free from cardiac or pulmonary disease; that the time in the bath should be very short at first, and I am of opinion that it should never exceed a minute; that the patient should be thoroughly well rubbed down after the bath; that the bath should be given by a person of intelligence, who can report as to its immediate effects—whether the patient felt the shock much, and whether reaction soon followed.

The conclusions that I consider myself warranted in drawing from the analysis of the above cases are—

That a gentle shower-bath every morning seems exceedingly useful in the treatment of certain states of the nervous system connected with mental alienation, more especially the following:—

- 1st. Puerperal mania at the dull stage.
  - 2nd. Hysterical mania in young girls.
  - 3rd. A state somewhat similar to the above, seen in boys and young men, dependent on sexual causes.
  - 4th. In cases in which persistent excitement exists without organic cause.
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## PART II.—REVIEWS.

*The Lunacy Blue Books.*

1. *Twenty-Sixth Report of the Commissioners in Lunacy.* 1872.
2. *Fourteenth Annual Report of the General Board of Commissioners in Lunacy for Scotland.* 1872.
3. *Twenty-First Report on the District, Criminal, and Private Lunatic Asylums in Ireland.* 1872.

The total number of persons known to be of unsound mind in the United Kingdom at the beginning of 1872 was 84,866, viz., 58,810 in England, 7,729 in Scotland, and 18,327 in Ireland. This is an increase of 3167 over the year 1870, the greatest proportional increase having taken place in Ireland, and the least in Scotland. These numbers give a proportion of one lunatic or idiot to every 371 of the whole population, or one to 386 in England, to 435 in Scotland, and to 300 in Ireland. Year by year this proportion rises, not by any means slowly, and as if with the resistless steadiness of a law of nature. In 1859 it was only one to 535 in prosperous, advancing England; in 1846 it was only one to 661 in unprosperous, receding Ireland. Not only does the number of the insane in asylums increase, but the number in workhouses and those known to be living with their relatives appear equally to augment. The workhouse patients stood at 8,000 in 1859 in England, and they are now nearly 14,000; while in the same time those in County Asylums have risen from 15,844 to 29,641. In Ireland, the numbers in asylums have risen 1,681 in five years, and the numbers outside have risen 996 in the same time. Scotland is, on the whole, best off, for the increase there has only been 1,812 since 1858, and in that country of "lunatic colonies" and "Gheels in the north," where there is a common notion that a large number of the insane are "boarded out," there has actually been a decrease of nearly 300 of those accommodated in "private dwellings." It would seem that the earnest and resolute efforts made there to increase the non-asylum provision for the insane, and to create a public opinion against asylums have, by the satire of events and the contrariness of things in general, only been followed by an increase of 1,000 in the asylum inmates, and this decrease (confined to Scotland) in those who enjoy the free-air system. New lunacy acts, commissioners in lunacy, stately expensive asylums by the

score, psychological doctors by the hundred, a homily on the wonderful effects of early treatment by every one of those doctors every year, printed and circulated at the public expense, teaching on insanity at nearly every medical school—all these seem as powerless to arrest the yearly increase of lunatics reported in the blue books as was Canute's command to stem the rising tide. It is no wonder that we have a deeply rooted popular opinion that lunacy is on the increase, and that professional commentators on these facts, whose power of looking into things is small, and their desire to please the public very great, should not only endorse this opinion, but bring forward most conclusive medical reasons why it should be so. Is not the bustle and strain of modern life quite sufficient to drive nearly everybody mad? Are not the habits of modern society quite inconsistent with the serene enjoyment of the *mens sana in corpore sano*? Do not kettledrums, nips, and late hours manifestly lead to "abnormal cerebration?" This line of argument has undoubtedly a most plausible and likely look about it. Those things ought certainly to be true; we find, however, that nearly all the increase of insanity is found in Dorset, and not in Yorkshire; in Wiltshire, and not in Belgravia; in Conemara, and not in Manchester. The asylums for rural counties have to be every year enlarged, while the private asylums for better-off patients don't fill nearly so fast as their proprietors would like. This is but one of the difficulties in the way of determining the matter off-hand. An examination into the local distribution of the insanity shows anomalies to every rule that has yet been laid down to explain the production of insanity, but no such examination of an exhaustive kind has really been made. In the Scotch Report (pp. 9 and 65) some suggestions are made, and some difficulties stated, but no conclusion is come to. As far as the facts have been brought out as yet, the following are the chief of those that help to determine the question:—1. The wealth of the population of a district. 2. The rate of increase of such a population. 3. Its stationary or migratory character; this, no doubt, causing or preventing the intermarriage of relations. 4. The amount and kind of alcoholic drinks used. Contrary to what might have been expected, the education, religion, morality, or criminality of a district seems to have exceedingly little to do with the proportion of insanity in it. It is much to be regretted that the Lunacy Commissioners do not at once set about the thorough investigation and settlement of this

most important question. The doing so would cover them with glory. One would imagine that the statesmanship of the honorary members, the prying into things in general of the lawyers, and the scientific and medical zeal of the doctors, would all have combined long ago to clear up a matter that so deeply affects the commonwealth.

The admissions, not including transfers, for the year 1871, amounted to 10,758 in England, 1,836 in Scotland, and 2,409 (this does not include the *new unregistered* lunatics for the year) in Ireland; making in all 15,003 for the whole kingdom. This is an increase for the two former alone of 407 over the admissions for 1870; the increase of the population would account for 200 of these, so that in reality the real increase of the new cases for the year is only about  $1\frac{1}{2}$  per cent. on the preceding year. The production of lunacy is, of course, better represented by the number of new admissions for the year than by any other set of figures.

The recoveries in asylums and elsewhere during the year amounted to 6,009 in the three kingdoms, viz., 4,151 in England, 810 in Scotland, and 1,048 in Ireland. This gives a percentage of 40 as the rate of recovery for the whole kingdom, England standing at 38,\* Scotland and Ireland at 44.

There were 4,973 deaths among the insane population during the year, viz., 3,822 in England, 539 in Scotland, and 612 in Ireland. The English death-rate on the average numbers resident was, as usual, the highest, 10.38; the Scotch next, 8.9; and the Irish the lowest, 8.2. If the diet was the only thing to be taken into consideration in accounting for this, the matter could be simply put. The better the diet the more deaths. But, of course, we know that this is incorrect. The comparative prevalence of general paralysis and epilepsy in England, as compared with Scotland and Ireland, in reality accounts for by far the greater part of the difference in the mortality.

A great deal of most valuable information is given in a tabular form in all three reports, but, unfortunately, there is not a single table in any of them that is uniform with a table in either of the two others. Much ingenuity must have been spent in carrying out this divergence even to the minutest matters. It need scarcely be remarked how much this takes away from their value as imperial statistics. Each report has

\* As calculated in table 4 of the English Report, it is put at 33.87, but in this the transfers from one asylum to another are included among the admissions—an obviously incorrect method.

tables that convey information not to be got in the others, and each has its special good points in the matter of tables. We would instance Tables 2 and 7 in the English Report; those on pages x., xxxi., xxxii., xxxviii., xli., and lxvi., in the Scotch Report; and the series of tables from 1 to 24 in Appendix C in the Irish Report. All the information given in the English tables is very compact and to the point, and they are very systematically arranged; that in the Scotch tables is far fuller, refers to far more points of medical, scientific, and general statistical interest; while the Irish that are of any value at all are abstracts of the statistical information usually given in English and Scotch Asylum Reports. It would be a most undeniable improvement if in each report the tables of the Medico-Psychological Society were used, and all the financial information as to salaries, &c., in the Irish blue book was given. It is unfortunate that this is almost the only thing worthy of commendation in the Irish Report, except its brevity.

By far the greater part of the English Report is occupied with an account of the additions, alterations, and general state of the asylums, public and private, and the entries by the Visiting Commissioners are given in full in appendix C. These show that on the whole the state of the asylums is considered satisfactory. We could wish that the reports were made on a more systematic and less desultory principle. If all the reports for one year—and this plan would make an agreeable variety in what must come to be rather a dull occupation for the Visiting Commissioners—contained in order the information to be obtained on the following points:—

1. The changes during the year, with any special observations required as to the admissions, discharges, or deaths.
2. The exact procedure that takes place on the admission of a patient into the asylum; who receives him; who takes him to the ward; what sort of ward he is at first taken to; what means are taken to get all the information possible about him; who bathes him, who examines him, and how this is done; the time taken to do it; how it is recorded; what is then done to the patient; how long he is allowed to be in bed; what he usually gets to eat first and when; if he is put under the charge of any special attendant or not; where he sleeps at first; what means are taken to find out his mental peculiarities and bodily symptoms and report them to the doctor; what is the general mode of treatment adopted, what drugs are most in vogue, on what principles excitement, depression,

sleeplessness, and exhaustion are treated ; how often records are made about him and by whom ; what control the medical superintendent exercises over individual treatment ; who orders him to be put to work, and who selects the work he is to do ; what means are taken to overcome obstinacy about working ; if he is changed to other wards when improved or getting worse ; and, finally, how long after or before complete recovery he is discharged, and if any means are taken to report on him after his leaving the asylum. 3. Means of employment in the asylum, the numbers engaged in the different occupations and the estimated profit or loss. 4. The means of amusement, the numbers enjoying them, and who sees that the recent cases are encouraged to take part in things that will divert their minds. 5. How long the doctors spend in the wards, and what they do when there. 6. How many attendants, how placed, how the work of each is arranged, and what training a new attendant gets on his first appointment. 7. What offences on the part of attendants are invariably followed by dismissal and which are not. 8. The exact principles on which seclusion, restraint, shower baths, strong neurotic sedatives, strong dresses, and such things that are liable to abuse are ordered. 9. How long all the patients are out in the open air every good day. 10. Clothing and bedding. 11. Classification or no classification in wards, its principles, and who carries them out. 12. Furniture and decorations of wards. 13. Night nursing, how done, how reported, what sort of cases get most attention—the dirty, demented, incurable who wet the beds ; the epileptic, suicidal, or the recently admitted cases. 14. The means taken to discharge unrecovered but harmless cases. 15. The ordinary dietary, the amount of nourishment contained in a week's allowance for a patient, the average weight of food not eaten every day, the favourite dinners. 16. The mode of nursing the sick and paralysed, and the treatment of bed sores. 17. *Post-mortem* examinations, how performed, how recorded.

In case of anything unusual under any one of these headings, the reasons given by the doctor why this is so should be given. We believe that one year's reports, made on some such uniform principle, would be most valuable to the superintendents of asylums, and could not fail to bear good fruit.

The plans of new asylums given in the English Report are most valuable. This year the plans of the Metropolitan Asylums for Imbeciles are given.

The question of attendants is the last one discussed in this report, and we are glad to see that the Commissioners add the weight of their authority to the opinion that attendants are utterly underpaid. This is, in the main, a simple money question, and will have to be faced in all asylums soon. Some systematic mode of training attendants, too, is very much needed.

The Scotch Report, as usual, is strong on the subject of the removal of harmless, unrecovered patients from asylums. It appears that the amendment to the Scotch Lunacy Acts, providing for the discharge of a patient after being in an asylum three years, except the Superintendent certifies on the first of each year that his detention is "necessary and proper, either for his own welfare or the safety of the public," has been almost entirely inoperative. This certainly seems an unpractical and obscure law. Asylum doctors are often puzzled enough about the sanity or insanity of their patients, but when one of them has to determine the social problem as to whether the "welfare" of, say each one of his 1,000 patients, is best promoted by the (to him) known conditions of asylum residence, or the entirely unknown conditions outside, he may well feel that the indefiniteness of such a statute is ample justification for its neglect. Who can imagine the consternation of the inspectors of poor of a county, where the superintendent of the asylum, newly converted perhaps by certain articles in the "Scotsman" and "Edinburgh Review," which make the welfare and happiness of a lunatic synonymous with his complete liberty, had thought it his clear duty not to certify any of his patients, with the result of them all being suddenly turned adrift?

There are some admirable observations in the Scotch Report on the mortality among the insane (p. xxvii.), and especially in regard to the well-known prevalence of consumption as a complication of insanity. As this has been lately questioned on most insufficient grounds, we quote the passage:—

"It may, however, be well to point out that the mortality of an asylum can only be properly compared with that of another asylum. In comparing it with the mortality of the ordinary population, there are too many sources of error to permit of any very trustworthy results being arrived at. This fact will be at once apparent, if instead of an asylum we suppose the comparison to be made between the mortality of a fever, small-pox, or cholera hospital, and that of the general community. The circumstances of the two things compared are so totally different that the comparison becomes absurd. Even

the prevalence of an epidemic may engender such different conditions as materially to influence the relations towards each other of the inmates of establishments and of private dwellings—by the measures adopted in the one case or the other, for averting or facilitating the propagation of the epidemic disease.

“As the facts which are here broadly stated are occasionally lost sight of, and comparisons are instituted, with erroneous conclusions, between the mortality of asylum patients and of the general community, we shall go a little more minutely into this question. The inmates of an asylum are all affected with a deviation from the normal condition of the organism, inducing such abnormal mental manifestations as have led to their being separated from the rest of the community, and detained in special establishments. In some cases, however, this deviation can scarcely be reckoned as disease. In many imbeciles, for instance, all the organic functions are normally performed, and it becomes necessary to restrain their liberty, only from their deficient intelligence, or their deficient moral perceptions rendering them dangerous to themselves or others. Between the mortality of such persons and that of the general community a comparison might perhaps be fairly instituted; but their number in asylums is comparatively small. Far greater is the number of those patients whose bodily health is so feeble that their death follows within a short period after their admission.

“From the returns made to us it appears that of the patients admitted into public asylums 42·3 per cent. die within the first year. The inference from this fact is that a large proportion of the patients admitted into asylums are already affected with some incurable form of organic degeneration. But in order to give the necessary qualification for admission into an asylum, such organic degeneration must be accompanied by abnormal mental manifestations; and in the very nature of things the organs affected must be principally those of the nervous system. Consequently it would be only natural to expect a much higher proportion of deaths from disease of the nervous system among the inmates of asylums than among the general community. That this is really the case we shall now proceed to show. Among the population of Scotland there occurred in 1868, 8,154 deaths from consumption, and 5,460 from diseases of the brain and nervous system. As the total mortality was 69,416 these figures make the percentage of deaths from consumption 11·7, and that from diseases of the nervous system 7·8. But among the restricted community of the insane, the case is far otherwise. On an average of several years the percentage of deaths in the public asylums of Scotland was 17·3 from consumption, and 34·9 from diseases of the nervous system.\*

“Thus while in the general community the mortality from consumption was considerably higher than the mortality from diseases of the nervous system, in the asylum communities the mortality from

\* It should be kept in mind that these percentages are calculated on the total number of deaths.

diseases of the nervous system was double that from consumption. Such facts show, we think, very clearly the fallacies of comparisons between the total mortality of asylums and of the general population, and also of comparisons between the different causes of mortality among the sane and insane. The percentage of deaths from consumption in asylums does not greatly exceed that which takes place among some sections of the general community, and from facts of this kind it has been maintained that consumption is not more prevalent among the insane than among the sane. But no argument could be more fallacious. This will be at once apparent when it is kept in view that the mortality of 17.3 per cent. from consumption in asylums takes place among a class selected on account of diseased mental manifestations, and that this selection involves, as we have shown, an abnormally high mortality from lesions of the nervous system. If, then, among the remaining patients the deaths from consumption are still sufficiently numerous to give a percentage of deaths surpassing that from the same cause among the general community, it necessarily follows that consumption must occur in a much higher ratio among the insane than among the sane.

“There is, however, another point which, unless taken into account, must vitiate all comparisons between the mortality of asylum patients and that of the general population; that is the age of the communities between which the comparison is made. It is very clear that if an equal percentage of deaths from consumption were found occurring among an asylum community which contains very few persons under the age of puberty, and among the general community which embraces persons of all ages, there must be a fallacy in the comparison. Supposing the population of asylums to consist entirely of persons between the ages of 30 and 60, the annual mortality among them from consumption, according to the returns made for the entire population of Scotland, should amount to 3.3 for every thousand resident; whereas the actual mortality of asylum inmates from consumption, on an average of the five years, 1866-70, was equal to 16 for every thousand resident.

“But there is still another fallacy which has to be guarded against in such comparisons. The annual mortality of asylums is 8.2 per cent. on the numbers resident; the mortality of the general population, however, is only about 2.1 per cent., or a fourth of that of the asylum population. Consequently, even upon the view that the proportion of deaths from consumption to the total number of deaths from all causes was not higher among the asylum community than among the general community, there would still occur among the latter four times the number of deaths from consumption which occur among the former, simply from the higher rate, at which, as a class, asylum patients die. That is, population for population, four times as many deaths would occur from consumption among the insane as among the sane.

“We may here call attention to the fact that consumption is much



more prevalent in some asylums than in others. The deaths from this disease, for instance, are seen from the table on p. lxvi., to amount in the Inverness Asylum to 21·4 per cent. for males and 36·3 per cent. for females of the total mortality. In the Elgin Asylum this percentage is 33·6 for males and 30·6 for females. On the other hand, in the Aberdeen Asylum the percentage of deaths from consumption is 3·5 for males and 17·5 for females; in the Asylum of Dundee 9·7 for males and 3·8 for females; and in the Royal Asylum for Perth 4·3 for males and 6·2 for females. It deserves to be noted that in those asylums which are most remarkable for their low mortality consumption is least prevalent; and we are again confronted with the question whether this fact is dependent on conditions affecting the general community, or on conditions affecting the asylum inmates only. It may, however, be well to bear in mind the possibility of something being due to the different degrees of care bestowed by different medical men in ascertaining the causes of death. Has any marked difference in the reported causes of deaths in an asylum ever been observed to follow the appointment of a new superintendent?"

In the table on page 31, there is an admirable continuous history of 1297 patients who constituted the new admissions into Scotch Asylums in the year 1858, down to the end of the year 1869. Such a table is a real addition to our knowledge of insanity, and is the most valuable contribution to the vital statistics of the insane, since Dr. Thurnam, in his "Statistics of Insanity," traced out the continuous history of 244 cases who had been patients in "The Retreat."

The average cost of a lunatic in a public asylum was, in England, 9s. 8¼d. per week, being an increase of 3d. per week on the previous year; in Scotland it was 9s. 7½d., being 1½d. less than the previous year, and in Ireland 9s. ¼d., being about ¾d. more than the previous year. This varies more on the whole in England than in Ireland or Scotland in different institutions, the greatest difference in the former being 7s. 5d., and in the two latter rather under 5s.

There were twelve suicides in asylums in England, six in Scotland, and seven deaths from suicide and violence in Ireland. It seems most probable that the high comparative number in Scotland results from the present tendency there to give greater liberty to asylum patients. Strong efforts are evidently being made by the English Commissioners to prevent the occurrence of suicides in asylums, by increased supervision by day and night, and they seem to have adopted the principle that all large asylums should have a special dormitory and a few single rooms for epileptics and suicidal patients, where a special attendant is on duty all night. The

wonderful thing certainly is, not that there are so many suicides in asylums, but that there are so few, when we consider that there are over two thousand in the United Kingdom every year out of asylums.

These reports show that on the whole there is an immense amount of thought, and care, and effort exercised in the treatment of the insane by all who have to do with them. Year by year the efforts towards a more perfect system of treating and managing them seem steadily to increase in all but one direction. That spasmodic and individual efforts are made in this direction is true, but on the whole the medical treatment of the diseases which are comprised under the term insanity, stands still, as compared with the asylum building, general managing, &c. So far as these blue-books go (with some exceptions in the Scotch report), they might be about any other evil that afflicts humanity than a well-marked disease arising from disordered function of one of the organs of the body. Three books about a disease with nothing medical in them! Everything that concerns the treatment of those labouring under this disease professedly gone into, and not a word about medicines! Talk of modern scepticism, the Reports of the Commissioners and Inspectors in Lunacy are the finest examples of medical scepticism extant, for they don't deny, deride, or damn with faint praise, they simply ignore the whole science and art of physic and all its professors. It may be that this will be better in the long run for the study and the medical treatment of insanity as a disease, but it is hard to see it, if its practical effect is to encourage asylum doctors to ignore the medical aspects of patients, and sink into a state of lethargic indifference to the unsolved problems in brain pathology, diagnosis, and therapeutics that daily come before them. Every year physiology shows some closer connection between brain and mind, every year psychology admits a closer dependence of mind on brain, every year medicine proclaims the increased importance of the agents that act on the nervous system. No one can doubt that the discovery of any agent that would cut short an attack of any one form of insanity, would do more good to humanity than all the lunacy blue-books ever written; that any mode of treatment which would prevent the occurrence of any form of insanity, would be worth all the money ever spent on Lunacy Commissions. And yet all the persons who have to study and treat this most common but most mysterious disease, the elucidation of which might solve the problem of the connection of mind

and matter, the cure of which would be the most blessed boon to humanity which ever the angel of mercy bore to earth, and the prevention of which would cut away the roots of untold crime, and sin, and social misery—those persons are chiefly encouraged to look at the matter from the point of view of the comfort and quiet that can be produced in lunatic asylums by good arrangements well carried out. It does not seem to be realized that we now have good enough asylums for all useful purposes, and that we ought to have passed into a further stage of the care and treatment of the insane than mere asylum management, or even lunatic colonies and the boarding-out system. There seems every probability that this further and more advanced stage will be carried out under different auspices from those of the present Lunacy Commissions. With the alternative of a more popular management and control of public asylums, or some practical effect being given to Sir Massey Lopes' resolutions; the probability that on the death of the eminent philanthropist, who at present presides over the English Lunacy Commission, it will be absorbed in the Local Government Board; the imminence of great changes in the whole private asylum system;—it well becomes the medical officers of asylums to look ahead and prepare for what is coming. The probability is that they may find their positions anything but improved in many ways. They will have another set of masters to educate. They probably will be better able and be more encouraged to cultivate and turn to good account their medical instincts. The final shape in which the lunacy affairs of the kingdom will be regulated may probably depend much on the accident of political parties. The best that can happen will be that we should have some statesman as well qualified to give definite shape and form to the present and future requirements of medical science as Lord Shaftesbury was to control and mould the philanthropic movement that resulted in the present lunacy acts and lunacy system. Many things will have to be provided for in the lunacy laws of the future that now are wanting. Provision for the establishment of small adjuncts to county and town hospitals for the early and proper treatment of recent cases of insanity without any legal order of incarceration. The extension of the present power of one lunatic being received as a boarder into an ordinary family to four or five, so long as they are treated as members of the family, making the discharge of all patients, public and private, on

recovery, a purely medical matter. Provision for the separate treatment of dipsomaniacs. Elastic provision for the establishment of lunatic colonies, lunatic-worked farms, payment of lunatic labour, &c. Some sort of provision that the men who inspect and find fault with others shall themselves have had the responsibilities and the opportunities which actual superintendence can alone give. Some provision that the medical officers of asylums shall not be entirely debarred, as hitherto, from ordinary practice, but rather shall be compelled to keep up a general knowledge of, and interest in their profession, by a certain amount of hospital, or union, or private practice. The appointment of deputy inspectors to visit the single cases frequently, so that the present anomaly of those patients who most require looking after being least seen to, shall be remedied. The disjunction of the legal and medical elements, and their relegation to their own separate spheres, the former to decide all legal matters, the latter to do everything that implies personal contact with the patients. The whole question of criminal lunacy needs settlement: what it is, how it is to be determined, &c., and according to the universal opinion of the medical profession this implies provision for taking the opinion of experts in a rational way in regard to doubtful cases of insanity before the courts of law. Some provision for middle-class insane patients, who are at present incomparably worse off than any other class. The whole subject of the management of the property of lunatics needs statutory overhauling. All this and more than this is required, for every enactment that affects the insane should make provision for the full exercise and encouragement of voluntary philanthropic effort and help, for the widest scope being given to the requirements and advance of medical science, and for interesting and enlightening the public mind on the whole subject.

The true significance of the facts recorded in these lunacy blue-books is very far from being exhausted by looking at them from the mere lunacy point of view. We shall some day be in a position to look at them as one of a series of phenomena all bearing a very close relation to each other, and together affecting the happiness of mankind more than anything else. If we had accurate information as to the mental and bodily diseases that had affected a population, and could then accurately correlate that with reliable data as to their food, occupations, education, crimes, morals, and religion, how vastly our knowledge of Man would be extended!

*Hegelian Law, Mathematics and Physiology.\** By J. H. BALFOUR BROWNE, ESQ.

These admirable lectures upon the Philosophy of Law are not given to the public for the first time in the present volume. Originally delivered before the Juridical Society of Edinburgh, in November, 1871, they were published in the *Journal of Jurisprudence* in the four first months of the current year. From thence they passed, by appropriation, it is presumed, into the pages of the *Journal of Speculative Philosophy*, an American periodical, and are at the present time, we have reason to believe, being reprinted in book form in St. Louis, Missouri. Now we might conclude that lectures which were worth all that delivering, printing, and reprinting, had certainly some value. But demand is not always a good criterion of merit in literature; nay, so little is it so, that it is frequently the most worthless books that have the largest sales, and those which have fewest merits have the most readers. When such is the rule, it is a matter for congratulation to find such a noteworthy exception as that which is before us. It is satisfactory to find one work which is really valuable highly thought of, to find that a book which is in every way admirable has a real marketable value, and has found favour in the eyes of publishers both in this country and in America.

Even if Dr. Hutchison Stirling's name was not upon the title-page of this book, such a history of popularity and demand as that we have alluded to would make some notice of this work at our hands expedient. But Dr. Stirling is more than favourably known to us. The author of the "Secret of Hegel," which contains the best metaphysical work which has been done in this country for a very long time—the translator and annotator of Schwegler's "History of Philosophy," the able critic of Hamilton's "Philosophy of Perception," and the antagonist of Professor Huxley, in his relation to the Theory of Protoplasm—can naturally command attention for any words he may utter in relation to Philosophy, whether that be the philosophy of law, or the metaphysics of Astronomy or Fluxions. But have we here in a journal devoted to the exposition of Mental Science anything to do with law? And does not Dr. Stirling profess too

\* Lectures on the Philosophy of Law, together with Whewell and Hegel, and Hegel and Mr. W. R. Smith, a vindication in a Physico-Mathematical regard, by James Hutchison Stirling, F.R.C.S., and LL.D., Edin. London: Longmans, Green, & Co. 1872.

much? Does he not desert his "last" when he handles Law, Physiology, and Mathematics? To-day we find Dr. Stirling exposing what he believed to be the fallacy of some clever writing of Dr. Huxley in relation to a question purely physiological. To-morrow Dr. Stirling is dealing with the labours of Trendelenburg, Röder, Hildenbrand, Heron, and Austin, and discovering in the too highly praised works of the last of these much incompetence and numbskulledness. But further, in the work before us Dr. Stirling "falls foul" of Whewell, and shews, not only his ignorance of German, but his incapacity for the criticism of Hegel, which he so gratuitously undertook; and at the same time he deals summarily with a Mr. W. R. Smith, who thought to prove that Hegel had attempted to "establish the calculus on a new and very inadequate basis." Now, it might seem that Dr. Stirling, who professes to be nothing but a metaphysician, was going out of his way to deal with law, with physiology, with astronomy, and with the higher mathematics. That is, however, an entire mistake, and as it has caused infinite confusion with reference to Hegel, has caused these strictures in answer to which Dr. Stirling now lays these Vindications before the public, it is of the utmost importance that this matter should be thoroughly understood. An explanation of Hegel's position in reference to these matters will make it evident that, in relation to Physiology, Dr. Stirling is simply defending the logical category of difference against that which is only equally authentic—identity, which is alone predicated by Professor Huxley; that in relation to Law, he is dealing with the philosophy which gives its sanction to all excellent legislation, and not with the particular laws which are so sanctioned; that as against Whewell, he is vindicating Hegel against a mistaken belief that the great German had really tried to throw discredit upon Newton's law of gravitation, and on the mathematical proof of Kepler's laws in the *Principia*; and lastly that, as correcting the errors of Mr. W. R. Smith, he is vindicating the metaphysical position of Hegel in reference to the Calculus, and that everywhere and always he is simply philosophical. These facts indicate why a notice of these lectures and vindications should find a place in this Journal. The interest of the questions involved will show the importance of becoming more thoroughly acquainted with these able expositions than it is in our power to make the reader in this place.

There was a necessity for these lectures upon the Philo-

sophy of Law. We had come, in these days, to regard all laws simply as matters of expediency, as matters without much meaning but emergency. Our lawyers know the law but not the reason of it. They know the practice (from Daniell and Chitty) of all the courts except the ultimate court of appeal. Mr. Carlyle has well said—"And truly, the din of triumphant Law-logic, and all shaking of horse-hair wigs and learned-sergeant gowns, having comfortably ended, we shall do well to ask ourselves withal, what says that high and highest Court to the verdict? For it is a court of courts, that same, where the universal soul of Fact and very Truth sits President; and thitherward, more and more swiftly, with a really terrible increase of swiftness, all causes do in these days crowd for revisal, for confirmation, for modification, for reversal with costs. Dost thou know that Court; hast thou any Law-practice there? What, didst thou never enter; never file any petition of redress, reclamer, disclaimer, or demurrer, written as in thy heart's blood for thy own behoof or another's, and silently await the issue? Thou knowest not such a Court? Hast merely heard of it by faint tradition as a thing that was or had been? Of thee, I think, we shall get little benefit.

"For the gowns of learned serjeants are good: parchment records, fixed forms, and poor terrestrial Justice, with or without horse-hair, what sane man will not reverence these? And yet, behold, the man is not sane but insane who considers these alone as reverable. Oceans of horsehair, continents of parchment, and learned serjeant eloquence, were it continued till the learned tongue wore itself small in the indefatigable learned mouth, cannot make unjust just. The grand question still remains, Was the judgment just?"\*

That of a surety is *the* question, and how is that question to be answered? Not by any expediency or consent doctrines, but by a reference to the laws of which all our written or unwritten laws are, if they are just and right, simply excerpts, by a reference to that legislative enactment which is written within us, and which legalises or annuls all the acts which are passed by our Parliaments and signed and sealed by our Royal Commissions. Now the question is—what these laws are, how are they enacted? To discover them, and their self-sanction we must have recourse to philosophy, and, in this instance, to the philosophy of Hegel.

\* Past and Present. B. i., ch. 2.

The question which has so often failed of solution is how the many of nature can be reduced to the one of thought?

All science, all philosophy, has been tending towards the answer to this question, and tending to that union which seems to be so eagerly desired by some, while it is as energetically repudiated by others. But notwithstanding the stupid abhorrence of some so-called practical scientific men, of what they ignorantly believe to be philosophy; notwithstanding the hostile attitude which has been assumed by many of the followers of what they are good enough to call the exact sciences with regard to metaphysics, it is certain that science never can be exact, unless it is sanctioned by a true metaphysics, unless it has its verdicts confirmed by that higher court of appeal—philosophy.

The *scientia scientiarum* is an indispensable. All science is explanation, but explanation itself requires to be explained, and that explanation of explanation, or explanation in itself, is philosophy. Now as science has been tending to the reduction of the many to a one, as all classification is nothing but science, and that process, so has metaphysics been tending to the still further unification of the many of science in the one of thought. The object of philosophy has been to find some basal and self-based explanation of thought. Now this, which has to our thinking been at last effected, has not been the work of one man but of many. Thoroughly to understand the Hegelian theory of self-consciousness, one must, as Dr. Stirling points out, understand the main drift of the labours of all philosophers, from Thales to Schelling (p. 71), and we may say that one of Dr. Stirling's greatest merits is his admirable power of statement of creeds. Nothing could be better than his statement of the contents of Kant, contained in his article in the October number of the "Fortnightly Review."\* Here, in the first of these lectures upon the philosophy of law, we have equally good accounts of Kant and Hegel in their relation to each other. These statements, which only extend over a couple of pages, are the rich results of years of labour. To get the central notions of such men, one must work laboriously through the hundred externalities which surround inner thoughts. And even when one is in the presence of that one vital thought, it requires keenness and power to know it and feel it. Such thoughts are always oracular. They come as Christ did, not easily recognisable as a king above men, but unrecognisable except to wise heads

\* "Kant Refuted by dint of Muscle."



and good hearts ; as a carpenter's son amongst the crowd of people. In no relation does the consciousness of Dr. Stirling's power force itself more resolutely upon us than in connection with these pithy expositions.

Once, then, having understood Hegel in his relation to the long generations of the thoughts of great men, and especially to the thoughts of Hume, Kant, Fichte, and Schelling, one might think oneself prepared to understand explanation as explanation, and, therefore, to understand all science, at least in its principles. Now that is exactly what Hegel felt himself to be ; and that is one of the chief causes of the enmity which he has on some hands excited, and of the hard names that he has on many hands been called. All the professors of the sciences have felt that their science assumed a vice—a vicarious position—in the presence of Hegel's metaphysics, and have regarded the efforts that that hard man, with his edged intelligence, his iron logic, and his heavy momentum, has made to comprehend all science in his all-embracing philosophy as presumptuous.\* Consequently, we find that Whewell resents his deliverances with regard to Kepler and Newton ; while Mr. W. R. Smith accuses him of ignorance, pigheadedness, and self-complacent arrogance, simply because he (Mr. W. R. Smith), a young man, has not taken the trouble to understand Hegel, or, to be more merciful to his moral nature, because he had not intelligence enough to do so.

The mistake which has been made by Whewell, Smith, and the rest, is just this : Hegel never did profess to find fault with any one received physical principle ; he neither thought of substituting a mathematical proof of Kepler's laws for that which had been offered by Newton, nor did he think of attempting to establish a calculus upon a new basis. "Hegel never," as Dr. Stirling remarks, "made a mathematical suggestion in his life" (p. 105). His work was not with physics as physics, but with metaphysics as such. He confined himself to the principles of the explanation, which was a part of metaphysics—which was, in fact, the *notion*—and took no

\* Mr. Shadworth Hodgson, in his article upon the Future of Metaphysic, which appeared in the "Contemporary Review" for November, 1872, has admitted Hegel's merit in regard to the all-embracingness of his philosophy. But is it not evident, that that is the very test of the truth of philosophy ? If philosophy is true, must it not inevitably be all-embracing explanation ? It must be not only an answer to questions of existence as the *prius* of thought, as Mr. Hodgson thinks, but an explanation of the constitution of thought as the *prius* to the very idea of existence.

cognisance of the physical facts, or direct physical principles. Science is explanation of the many of the infinite out and out,—of externality, of nature; but metaphysics is the explanation of that explanation in its relation to the infinite in and in of internality. With the truth of the explanation of explanation as such, metaphysics has to do, and with the metaphysics of Kepler's laws, and the metaphysics of Newton's fluxions, Hegel did feel that he had a right to meddle. His objections are never mathematical, always metaphysical, and his preference for the metaphysical Kepler is only natural; while his objections to the metaphysics of the calculus are the same as those which are urged by Professor Thompson. The incompetence of such men as Whewell and Smith to deal with the questions which Hegel had in hand to answer is remarkable, and is pointed out with much skill and intense force of reason and expression in these most able vindications. No vindications could be more satisfactory than these; and had we not another more imperative object in writing this paper, we could desire no pleasanter task for ourselves, and no more thorough elucidation of this doctrine, and of Hegel's relation to science, for the reader, than a statement of the whole of the thought which these able criticisms contain and of the particular results of each. But as they are criticisms, and as we desire to point out a new relation of "*the notion*" to science—and one which may be of greater interest to the reader of this Journal—we must content ourselves with what has already been said, and with a very earnest recommendation of these to the favourable notice and careful study of our readers.

To understand the remarks which we are anxious to make with reference to what we regard as a remarkable confirmation of the Hegelian hypothesis, as derived from the most recent physiological discovery, it is absolutely necessary to understand Hegel's theory, and it is even expedient that we should have some idea of Hegel's relation to Kant.

The great problem of philosophy has at all times been to reconcile the external to the internal. How mind could be cognisant of matter has been a question of the utmost difficulty. Some have avoided the difficulty by simple assertion—the assertion of mind and of matter, and of an incognisable relation between the two. But the days for the reverence of incognisables has gone by. We have, for the most part, come to admire knowledge rather than ignorance, and the stupid prejudice which makes the term rationalist a reproach, is in-

dicative simply of foolishness. Reason is the best part of a man, and the only thing in which a man is man. When he lives in his appetites he is on a level with the beasts; when he lives in his feelings he is ascending in the scale of being, but still he is a waif at the beck of Nature; and it is only when he reasons, and when his reason passes over into will, only when thought determines itself in passing over into act, that he becomes a true man—a knower, a sayer, and a doer. Then why make rationalism a stigma? Why turn that weathercock, the finger of scorn, which is turned about by a breath of the majority, upon the man, because he reasons, because he has the quality which is common to him with God, instead of that quality which is common to him with pig or hippopotamus? Therefore the incognisable will not be a refuge. A more thorough desire to solve the problem than that which is satisfied with a crossing of the hands in ignorance, has pressed on to a real answer to this most difficult of questions. At one time the difficulty was so great that abstract ideas were invented, with a view to the solution of the problem. Berkeley followed with his subjective idealism or sensationalism. Hume followed close upon Berkeley, with his scepticism, and as Dr. Stirling, in some of his writings, seems to think, with his sleeve-concealed laughter, and his denial made an assertion of the absolute facts necessary; and Kant was, as to his philosophy, the natural outcome of the sceptical grin of our own Hume. Now Kant's result was this: he asserted that "the sensation of the various special senses received into the universal *à priori* forms of space and time, are reduced into perceptive objects connected together in a synthesis of experience by the categories." This is in effect the cognitive theory of Kant; but an unfolding may be necessary. Mind being presented with an object, is in its unity in presence of a manifold, and in knowing the thing the mind has to connect the units of this manifold into a one, and reduce it into itself. But the ego in act is judgment—and judgment has twelve subordinate forms or functions, and these functions arrange themselves under the more general functions of quantity, quality, relation, and modality. The subjective factor then in a cognitive attitude is now conceivable. The objective factor is still a manifold of special sense in space and time. But space and time are not sensations, because they are not due to any special sense, and they have not objects like other special sensations; and they are not notions, for viewed in the relations of wholes and parts they have in such

aspect the constitution of something sensuously perceived, not of something intellectually understood. But time and space are, nevertheless, to Kant universal and necessary, and consequently he pronounced them general perceptive *à priori* forms—in the mind as necessary pre-conditions of special sense. But special sense is simply a subjective affection; but still that subjective affection is in relation to the transcendental object.

Now Hegel modified these results of Kant. “To him,” as Dr. Stirling truly remarks, “Kant’s great want was that of *process*—process deductive, process inter-connective.” For Hegel the whole universe must be derived from the constitutive act of the ego. The ego must have a self-developing principle in it. It must be a law to itself. The rhythm of its action must be self-imposed, inherent, for Hegel, and in that particular Hegel transcends Fichte, who had been content with an external law of thesis, antithesis, and synthesis, through which imposed law he supposed the ego to develop “into its own constitutive variety.”

But Hegel, if he was anything, was thorough, and he was in earnest to answer the question, not to shirk it. To answer it he felt that the explanation of the constitutive process of the ego must have nothing foreign in it. An ultimate explanation must contain its own grounds and reasons, and consequently for Hegel the ego’s development must be an internal unfolding and inherent rhythm dictated not from without, but from its own inner nature. Hegel then leaves the somewhat bare and external theory of Kant, and in relation to him Hegel may be said to have held that the ego develops into its own categories, and that when these are complete externalization results from the same common law. But this development of the ego is not the particular ego—yours or mine—but the universal ego, and it is of some importance clearly to understand this distinction. The universal is mine and yours, and yet mine and yours is not necessarily the universal. We have a subjective and an objective side of ourselves, and that objective is more mine than the subjective. The objective is a part of the necessary evolution of the notion. It is not mine or yours, but mine and yours, and, because it is notional, it is the universal—the true. What is objective—what is universal—is more mine than what is subjective, what is particular, and hence, as Hegel so admirably points out, the justice—not the expediency of the state—the justice, not the expediency of

punishment. For punishment is the re-affirmation of the universal free-will as against the particular will or caprice of the individual, and hence punishing a criminal is doing him no wrong, but is doing him a right.

Hence, also, we may point out, arises our worship of great men. That never can die out of the human heart; men must love, must reverence their fellows, and hero-worship is everlasting. Because the hero is the incarnation of the universal, we feel him to be more ourselves than we ourselves are, and, therefore, we love and reverence him. "The poet," says Emerson, who has a glimmering of the real deep fact, "stands among partial men for the complete man, and apprises us not of his wealth, but of the commonwealth. The young man reveres men of genius, because, to speak truly, they are more himself than he is."

Now, the ego thus resulting in externalization is the universal ego; but, to appreciate this externalization, the reader must attempt to understand the difference between these two cognitive theories. With Kant time and space are, as we have seen, general perceptive forms native to mind; with Hegel they are the universals of externality, but externality is not more necessary, objective, and actual to him than internality is necessary, subjective, and actual. With Kant the ego is known phenomenally; with Hegel, the ego is noumenal. With Hegel too "externality as externality is an infinite out-and-out of infinite difference under *irrational* necessity (physical contingency, &c.), internality as internality is an infinite in-and-in of infinite identity under *rational* necessity (Freedom [true Freewill], p. 72)." But we have more than once alluded to the constitutive act of the ego, and it may not be unnecessary, in case some of our readers may be unfamiliar with the writings of Hegel, or even unfamiliar with the writings of Dr. Stirling, to explain the nature of that constitutive act. Hegel's object was to explain rationally all explanation, and as we have pointed out, any adequate explanation, to be ultimate, must be competent to reduce into its own identity all the difference that is in the universe, and must at the same time bring with it its own reason for its own self—"its own necessity, its own proof that it is, that it alone is that which could not *not* be."

Here Hegel strikes home at vicarious thoughts, at the make-shift imaginations, which, like a depreciated currency, try to pass over the counters of men's minds, as if they were reasonable beliefs and true ideas. Here he exposes the shal-

low pretence of empty big words which contain spurious images, and of those pretentious *Vorstellungen* which would fain pass for true *Begriffe*. And, passing from this, Hegel finds that this self-development of the ego is to be found in the constitutive process of self-consciousness, which has resulted in the counterpoise of external and internal. And that that constitutive act or movement is the idealization of a particular through a universal into a singular, or otherwise the realization of a universal through a particular into a singular. Now that is the *notion*, and the *notion* is Hegel. This is the constitutive process of self-consciousness, and, therefore, the constitutive process of the universe. That process is the *prius* of all, is all; and hence we have that marvellous system, which is so admirably rendered by Dr. Stirling in these lectures into the most compact and crowded English, of evolution, the evolution of self-consciousness, into logic, nature, and spirit; the notional evolution of spirit into Abstract right, morality and observance; the further development of legality or abstract right into property, contract, and penalty, and the final division of property notionally into bodily seizure, formation, and designation. In each one of the developmental evolutions of objective spirit, which is really to Hegel and to us the whole of the philosophy of law, the reader will perceive the same triplicity or triunity of the notion, will perceive the same constitutive movement of a universal, through a particular, into a singular. To make this clearer, we may explain that to Kant and Hegel the freedom of will is a proveable fact. To them, law, morality, property, penalty, and all the rest of it; nay, man himself, in his concrete essence, is an impossibility, unless there is a free-will. To them free-will is moral necessity, and in *property* Hegel sees the singular will—the will of one positing itself in an object; in *contract* he finds the will of more than one, but still the particular will; while in *penalty* he sees the universal will, the objective idea in act of the state, which is in itself, and so far as it is just and right, a result in its essence of the notion.

It would be impossible to give the reader any adequate idea of the contents of these careful and invaluable lectures. In that respect this notice can only be a finger-post. And to understand the whole attitude of Hegel in this reference he must be content to read earnestly every word of these replete pages. One thing we wonder at, and that is how Dr. Stirling has been able to convey so much in so little. But

all genius has the same knack. Deep truths which a small man would thin-spread over a life's labours, the great man conveys in a sentence. The small man is like the young nation. In it all acts are ceremonials. A walk is a procession; amusement is a beating of drums and an ostentatious flapping of gaudy banners. As the nation grows older the ceremonials die out, the trumpets rust with the arms, the banners poison moths with their bad dyes; and so it is in a weak mind and in a strong. The small man externalises his æsthetics in plumes and slashed bucklers, while the great man goes none the worse for the slashing of his garments by the rents of age. And, while the small man makes a great cry about a little wool, and gives many words about a little thought, the great man is comparatively silent and lets his great thoughts jostle and elbow one another out of his full pages.

We cannot here say more with reference to these careful and admirable expositions.

We did, however, promise to illustrate Hegel's secret in relation to one of the discoveries of recent physiology.

The discovery to which we have referred has been made long after Hegel's time. Hegel died in 1831, and these important physiological discoveries were given to the world in the months of May, June, and July, in 1872. And yet it is surely evident that if there is any truth in Hegel's theory of cognition; if his notion is, as he held, the constitutive process of thought, and if thought is the universe, then it must be true as a metaphysics of any true physiology which has been discovered since his days. The correctness of the metaphysics or the ground of a science, is the test of the correctness of the science itself. What is not true in its connection to the principle of all thought, cannot be thought, and therefore it can only be accepted by those who are ignorant. But that which appeals from knowledge to ignorance is not science, but a make believe, and a sham! It may pass current with many, as a counterfeit coin does, but it is bad and worthless!

Now, in reference to Dr. Pettigrew's most able lectures upon "The Physiology of Circulation in Plants, the Lower Animals and Man,"\* we are able to discover an under-

\* These Lectures were published in abstract in "The Lancet" for May, June, July, and the first week of August of the present year. They are being published in their entirety, month by month, in the "Edinburgh Medical Journal," and my knowledge of them is drawn from these sources, as well as from a conversation with the author.

ground of true metaphysics, and although Dr. Pettigrew may be in utter ignorance as to the labours of Hegel, he has, through his purely anatomical and physiological researches, arrived at conclusions which are in conformity with the notional evolution of that great man. All true observation tends to supply the materials of true philosophy. Facts are little, but the essence of facts is much. You cannot get the wine of truth unless you have the sappy facts to throw into the winepress of reason. And Dr. Pettigrew has been gathering together most important facts which seem to us to be genuine, and from which the truth of the Hegelian metaphysics can be expressed. That his labours were done without any knowledge of the latest outcome of German philosophy renders them the more valuable to us. His unpurposed conclusions are, in our eyes, infinitely more important than any researches guided by a desire to prove a theory which he kept steadily in view. As we test the justice of all law by the principles of justice, so must we test the truth of Dr. Pettigrew's conclusions by the principles of all truth.

Dr. Pettigrew, who is perhaps the most distinguished disciple of Goodsir, must be known to all readers of the "Journal of Mental Science" as the discoverer of the arrangement of the muscles of the heart. In more recent times Dr. Pettigrew has devoted much careful attention to the physiology of flight as his most able monographs in the "Transactions of the Royal Society of Edinburgh" amply prove. And now we have, from his indefatigable industry, these most original lectures upon Circulation. At first sight it might seem that Dr. Pettigrew's labours had been too various. But just as we proved that what might seem erraticism in Dr. Stirling was the most constant fidelity to one subject; so it would be easy to prove that the researches of Dr. Pettigrew have a most philosophical continuity. Dr. Pettigrew is, in anatomy, a spiralist. He has proved that the heart is folded on itself, that the muscles of the heart are arranged spirally. That is his first discovery. His second is, that the wing of the bird is a hilex or screw, and that (owing to the two important discoveries made by Dr. Pettigrew, that the stroke of the wing is downwards and forwards, and that weight is one of the principal elements of flight), the stroke of the wing is a spiral, which in rapid motion untwists itself and becomes a rhythm or wave. Now, continuing his researches, he goes on to show that the heart is the type of all voluntary



muscles ; that the chest, without the bone, is, as to its muscles, exactly similar in its arrangements to the heart, and that, as in Hamlet there is a play within a play, so in the human body there is a heart within a heart. But further, as the heart is the type of all the voluntary muscles, the arrangement of the muscles of the fore-limb about the bone is exactly similar to the arrangement of the muscles of the heart about the hollow cavity of that organ. There is one type, therefore, according to Dr. Pettigrew, throughout the entire organism, and that is the spiral. Now, what we have said proves the truth of our assertion, that this distinguished anatomist is a spiralist. But Dr. Pettigrew has gone further. He is not only a spiralist anatomically, he is spiralist physiologically. He not only finds that the organs are themselves constituted spirally, but he finds that their functions are spiral. He has never said so much in words, but a very little explanation will show that this is really his meaning.

Not only is the wing a twisted lever or hilex, but the stroke of the wing is, as we have already remarked, in the figure-of-8, which, so to speak, becomes unravelled into a wave track, or, in other words, in rapid motion the loop of the 8 and the recessions of the wing become infinitely little. Here, then, we have the spiral functions of the spiral organ. Again, we have the heart, which is a spiral twisting on itself, or, as it were, wringing itself, and projecting the "blood along the main vessels very much as a bullet is projected from a Minnie rifle," or, in his own words, "the heart is screwed home during the systole, and unscrewed during the diastole." Here, again then, we have the function spiral as well as the organism.

Again we have, in Lecture 10, a very admirable and entirely new explanation of the movements accompanying inspiration and expiration. Up to the present time it has been supposed that in inspiration the anterior wall of the chest and abdomen are both pushed outwards, and that in expiration both are drawn inwards. This is, as Dr. Pettigrew shows, an entire mistake. According to him the chest and abdomen open and close alternately, precisely in the same manner as the auricles and ventricles of the heart, the chest opening when the abdomen closes, and the abdomen closing when the chest opens. But here we have again a spiral. A wave of motion passes from the symphysis pubis in the direction of the ensiform cartilage, a reverse wave passing

from above downwards when the abdomen opens and the chest closes. "The lines representing the movements cross each other figure-of-eight fashion." And so it is throughout—the functions of all the organs are spiral. Therefore there is no want of accuracy in describing Dr. Pettigrew as a spiralist in physiology as he is in anatomy. But to understand the whole truth of this assertion, this spiral function must be more minutely explained. The tissues of body are nourished by imbibition, and that imbibition is made possible by the two currents of blood flowing in exactly opposite directions. Now this flow is caused by the spiral or double action of the heart—that of pushing and pulling, sucking and squirting, which go on at the same time, and are not two actions but one. Here we begin to perceive the metaphysical bearing of Dr. Pettigrew's researches. But not only is the action of the heart a concrete action, but all the tissues have a circulation of their own (particular) independent of the general circulation (universal). All tissues are in one aspect lungs. This double unity of action rising to a triunity in function is found everywhere, and what we want to show is that that triunity is nothing but the notion, that the rhythm which Dr. Pettigrew finds everywhere in nature is nothing but the rhythm of self-consciousness. This will not be difficult. The main fact of nature is counteraction, contradiction, or, as Dr. Stirling happily expresses it, *contre coup*. Externality stands over against internality, and the important fact is their antithesis. Infinite affirmation could be nothing, and it is only by returning on itself, only through negation that it becomes something, spirit realises itself, makes itself definite by externalisation, which is the negation of the thinking principle, and stands over against it. The internal or infinite *intussusception* is *in*, and by, and through the external or the infinite difference of the out and out. But this is an act of judgment, a notion, and the notion is the rhythm of self-consciousness—the schema of universal, particular and singular. Every concrete is a universal through a particular into a singular. This, then, is what Hegel wanted to prove; and in all Dr. Pettigrew's discoveries we find this same *contre coup*—this same concrete, which is a universal through a particular into a singular. In the spiral we find the true concrete as distinguished from a straight line, which in its self-isolation, in its non-return upon self, is abstract. It is in the figure of 8 that we find the type of the notional anti-

thesis; but this may be further elucidated. Dr. Pettigrew finds distinct rhythmic movements in plants and animals. That rhythm is, as we have endeavoured to show, a spiral, a return upon self. He finds that these rhythmic motions are the cause of circulation, and that all hollow muscles act in precisely the same way. The seizure of food in the œsophagus, and the dismissal of the bolus downwards (or, as in the case of ruminant animals, also upwards), is one act, and is precisely similar to the sucking and squirting of the heart, and the in-breathing and out-breathing of the lungs. Each of these is a concrete, at the same time affirmative and negative, not two, but one—a rhythm, a spiral, the out-going and the return of motion.

But this is true throughout. We find the same circulation in gases, illustrated by their diffusion; in fluids, in the endosmoses and enoxmoses, which may be compared to the *coup* and the *contre coup*; in the circulation which, as Dr. Pettigrew, referring to Seebeck, remarks, may be said to exist in metals. And to return to the bodily organism, and from the hollow muscles to those which are spirally arranged round bones, we find that “when a limb is to be flexed the flexor shortens and the extensor elongates. This does away with the necessity of the muscle which shortens forcibly dragging out that which lengthens, which is a mere waste of power.”

Here, therefore, we have the same concrete. The affirmation cannot exist without the negation, the contraction cannot take place without the extension; or, as Dr. Pettigrew prefers to call it, the opening cannot take place without the closing. He even states (Lect. X.) that the muscles of the chest and heart are arranged in *antagonism* to one another. Now antagonism is the basal fact of concreteness. This is the same thing that we have throughout body, and that only because body is an externalisation of mind. The law of the universe is the universal concrete, because that law is the self-imposed law of thought. The concrete is the spiral thought; it is thought returning on itself, it is thought in the *contre coup*.

But the most important part of Dr. Pettigrew's discovery is with regard to the cause of all this. True, he is wrong in his ascription of causality, but he, even in his error, corrects a still direr mistake which other physiologists have fallen into. For a long time the world within us has been believed to be constructed by the world without. It has been the

object of physiology to prove that the architecnic principle of mind was matter. We have had various ingenious theories by which the organism of man has in all its parts been constructed by the conditions to which it was exposed. The eye was made by light, the ear by sound; the external conditioning was, according to some writers, everything; the internal was nothing but the conditioned. Spirit was clay in the hand of iron facts. The head was furnished by the world instead of the world being furnished by the head. This theory has pleased some people. The facile is always a temptation, and it is true, as Bacon has said, that rather than have no explanation at all, men will accept a superstitious one. True this was unacceptable to metaphysicians. It was impossible to accept it because it was unthinkable. It was only a pretended explanation, not a real explanation after all. Metaphysicians were, however, content to wait until physiologists had come to see the truth as to this matter, and in these lectures of Dr. Pettigrew we find that he has deserted this external method, and has accepted a more internal explanation. That explanation is an approach to the actual fact. In an early part of his course he points out that the rhythmic movements in plants (and his description of the relation of leaves and roots compared to external and internal skin, and of the endosmoses and exosmoses which goes on through a plant are especially admirable, and ought to be read in relation to Mr. Herbert Spencer's external method of accounting for various physiological phenomena in plants), are independent of nerve, muscle, and all these structures commonly regarded as essential to the kind of movement (Lecture IV.); and again in the ninth lecture, in speaking of the changes which take place in a muscle when it shortens (contracts), he says—"This implies the presence of two forces acting at right angles to each other, and to a power inherent in the sarcois elements of the muscle of shortening and elongating." While in the last lecture he asserts that the power of opening and closing in the several parts (of the heart) is inherent in the heart itself, and is not due to the impinging of the blood against the lining membrane of the heart, the blood acting as a stimulus; and he argues that if the blood acted as a stimulus it would cause the heart to contract before it had received its full quantity of blood, which it does not. And the same remark would of course hold with equal truth in relation to the passage of the contents through the alimentary canal. Indeed, it is obvious that if it were the

stimulus of the bolus which caused the action of the throat, the action would be exerted at the point of contact, and therefore in a direction contrary to that in which the food passes. While under the circumstances of inherent rhythm or wave movement, there will be both a pulling and pushing action exerted on the food, in the same way that the heart at the same time sucks and squirts the blood. But one more reference to Dr. Pettigrew's theory. In the same lecture he again asserts that the heart moves in virtue of a power inhering in muscular substances or in the nerves and ganglia which are so plentifully distributed thereto.

Here we see that he has rejected the external explanation of muscular movement which has been for so many years in vogue. He cannot even hold that this power is peculiar to muscular or nerve substance, as he finds precisely the same rhythmic movements in plants which have neither of these structures; and therefore while we hold that he is fully justified in rejecting the stimulus theory as mechanically impossible, as physiologically bad, and as philosophically absurd, we cannot hold that he is right in ascribing the rhythm as an inherent property of organic structure. Indeed, he almost shows that he is, in that particular, wrong by his allusion to the circulation of electricity in metals. (Lect. IV.) For it proves that the same law is to be found in the inorganic as well as the organic. Now, to understand the meaning of this rhythm we prefer to accept the theory of Proklus rather than the no-theory of Dr. Pettigrew. "The mighty heaven," said Proklus, "exhibits in its transfigurations clear images of the splendour of intellectual perceptions, *being moved in conjunction with the unapparent periods of intellectual natures.*"

And what is true of astronomy is true of physiology. The rhythm which, according to Dr. Pettigrew, inheres in muscle inheres only in mind. We have seen that that rhythm is the rhythm of self-consciousness; and that that inheres in mind and mind only is surely evident. "The universe," says Emerson, following Berkeley rather than Hegel, "is the externalization of soul," and, if that is so, what should we expect to find in the universe but the traces of that mental process which in the development of its categories results in externalization? Is it to be wondered at that we find the notion in physiology, in law, in mathematics? Would it not be the miracle of miracles if that were not the case?

We fear that we have done but scant justice to Dr. Stirling's very admirable work which lies before us. When we have said that nothing could be more excellent in Hegelian reference than these lectures upon the philosophy of law, and this vindication of Hegel's system in a physico-mathematical regard, when we have said this much, we hope that we have said enough to convince our readers that this work is worthy of the most careful attention and untiring study. Hegel is, with the exception of Kant, the strongest headed man that has devoted himself to philosophy since the time of Aristotle. That he accomplished more than his great predecessor was, to a great extent, due to Kant's failure. Where another falls, we may stand in very virtue of his mishap. And that he has accomplished much none can doubt. There has not, indeed, been any philosophy since his day, notwithstanding the assertions and self-assertions of Mr. Hodgson in the paper already alluded to.

Nay, we might even prophecy, as Dr. Stirling does, that the work of philosophy, for a long time to come, must be simply the explication of the great implicit content of Hegel. With a view to a partial effort in that direction, we have, in this essay, called the reader's attention to the metaphysics of the most recent, most ingenious, and most original researches in relation to physiology. And we must here quit the subject with an expression of our deep sense of indebtedness to Dr. Stirling for work which he alone in this country, nay even in Germany itself, was capable of doing. That it has been done with care, with thorough metaphysical ability, and with genius, we are happy to be able to report, as we were previously prepared to expect. Dr. Stirling is our greatest—almost our only great metaphysician.

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*Illustrations of the Influence of the Mind upon the Body in Health and Disease, designed to elucidate the Action of the Imagination.* By DANIEL HACK TUKE, M.D., M.R.C.P.  
London: J. & A. Churchill. 1872. 8vo., pp. 444.

Much has been written, both in prose and verse, by men of science and writers of fiction on the influence the mind exercises on the body. In the daily practice of our profession we talk about it, glibly ascribe the origin of many symptoms and the removal of others to the imagination,

without pausing to consider what that may be, or how the results we ascribe to it are brought about—too frequently acting as though we did not believe it to be so potent an agent as our words would imply. Yet, if disease may be caused, or, if existing, removed by any mental act on the part of the patient; or if the like result can possibly follow any mental condition induced by the physician, then surely the influence of the mind on the body and its functions is worthy of the most careful study by those who seek to know, not only the mysteries of nature, but the art of alleviating human suffering.

In the volume which forms the subject of this notice, Dr. Tuke has brought together a mass of valuable information and criticism, illustrated by cases selected from the best writers, ancient and modern, of our own and other countries. The author has classified his illustrations under the following heads:—The Influence of the Intellect, the Emotions, the Will, separately, on the Sensations, the Voluntary Muscles, the Involuntary Muscles, and the Organic Functions; and in doing so has endeavoured to reduce his views to something like a systematic arrangement, based on the present state of our knowledge of the physiology of the nervous system.

A special chapter, and one full of interest to those engaged in the treatment of disease, is devoted to a consideration of the influence of the mind on various morbid conditions.

Throughout, the volume abounds with curious facts and interesting speculations. If the author fails to show why and how the mind influences the body, it is because we are ignorant of the relation mind bears to matter—may we not say ignorant whether it is one of relation or of identity? So long as this is so, we must be satisfied with mere groupings of phenomena, content to wait for the elucidation until this knowledge is more definite than it seems likely to be for some time to come.

In the course of these inquiries, an interesting question arises, and one incidentally discussed in this volume, viz.:—Do the various phases of thought or emotion affect different organs, each its own group—that is, has each mental state its own special influence on particular organs; or is the influence common to the whole body, its localization dependent on causes existing within the organ itself? Now, our author gives us much food for thought. If we follow common opinion, as exhibited in our literature and daily conversation, we must say that joy and sorrow, envy and generosity,

hatred and charity, each selects a special organ on which to exert its influence; yet if this were so, we should be half inclined to think that the emotions themselves had their seat in these organs. That all mental states, whether of exaltation or depression, affect the circulation is indisputable; do we not find in this fact a sufficient explanation of all the ordinary results? Then, again, it is necessary for our existence that certain parts of the organism should obey or respond to certain mental states; were it not so, we should be devoid of all expression and of the power of action. This quality is common to all men, and gives character to the race—yet each man has some special quality of his own, which we designate habit, and in so designating it define its origin. Accident, or the force of circumstances, gives rise to this individual peculiarity in the first instance; habitual thought soon makes for itself highways to the organs which minister to it, and so what was at first voluntary soon becomes involuntary, and habit is established. The angry man, if he exhibits his rage by utterances or by acts of violence, makes broad the way by which the emotion travels to the tongue or the hand; the self-made path for the emotions in the parent lays out the lines for the offspring; so vice becomes habit, habit involuntary action. The influence of mental states in the cause or cure of disease seems to obey the same law. Thought long directed to any organ must affect the circulation in it, and in doing so, naturally influences its nutrition for good or evil, as the mental state may be. It is only in this light that we can understand the influence of the mind in the cause and cure of disease, and the rationale of much of the best work of the physician.

We commend this work very heartily to our readers as a valuable collection of well digested facts, suggestive of many useful applications by the medical practitioner.

We have abstained from entering upon a critical notice of this work for two reasons—first, had we done so, the result would have been simply an essay by ourselves on the influence of the mind on the body; and secondly, because a considerable portion of the work has already appeared in the pages of this journal.

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*Insanity and Insane Asylums.* Report of E. T. WILKINS, M.D., Commissioner in Lunacy for the State of California, made to His Excellency H. H. Haight, Governor. December 2nd, 1871.

This valuable report is the result of the enlightened policy of the State of California in sending a Commissioner to examine and report as to the treatment of the insane in America and Europe, before making provision for its own constantly increasing number of lunatics. The selection of Dr. Wilkins for this important work was an exceedingly wise one, as is proved by every part of this report. Its clearness, method, and completeness not only gave it weight in California and practical influence with its legislature, but make it a most instructive digest of all things pertaining to the subject of insanity and asylums for the insane in Christendom. As befits a document intended for general readers more than the profession, its style is simple and free from technicalities; as become words which are intended to be followed by deeds, they are plain and practical. It was well received, carefully considered, and, immediately after its publication, the State of California took steps to build a new Asylum on the principles advocated by Dr. Wilkins, who will thus have the deserved satisfaction of effectually helping in one of the most merciful and Christian of modern attempts to cure the diseased and care for the helpless among a community that has only been settled within the memory of men still young.

Dr. Wilkins visited 149 Asylums in America, England, Ireland, Germany, France, Italy, Belgium, Holland, and Switzerland, and gives descriptions of many of these, and statistics of insanity in those countries. He begins by accepting Dr. Skae's definition of insanity as "a disease of the brain affecting the mind;" he then treats of the distribution of insanity in all countries, its causes, the influence of social distinctions, and its apparent increase. He then goes very fully into the question of Asylums for the insane, their construction, and all their adjuncts. He then devotes a chapter to the treatment of insanity, and, after some general observations on the subject, sums up his views as to the sort of Asylums wanted in California. Lastly, there are very elaborate appendices and plans of Boston Hospital for the Insane, Pennsylvania Hospital for the Insane, the Michigan Asylum, the Brookwood Asylum, the Glamorgan Asylum,

the Perth District Asylum, the Meerenberg Asylum, and the Vienna Asylum.

Most of the information given in regard to Asylums and the insane of this country is known to the readers of this Journal, but there are many facts about those matters abroad that will be new to many of us. Dr. Wilkins found that the German physicians "assign nearly all cases of lunacy to hereditary taint." "In France, Italy, and Holland the greatest number become insane between the ages of 30 and 40, while in Ireland and at the York Retreat the greater number was between 20 and 30." In the United States the proportion of the insane to the total population of a given age was greatest at the ages from 30 to 40, and next from 40 to 50. In regard to the question of the increase of insanity, Dr. Wilkins' enquiries in other European countries all tend to the conclusion that while the actual number of those known to be insane has increased everywhere, yet that this increase is everywhere greatest where most institutions are built for their care, and most attention has been directed to the obtaining of information; that it always seems suddenly to follow the enquiries and the institutions; that this sudden increase seems to take place chiefly among the poor, whose mode of life has altered least for the past century, but whose insane relatives are paid for in the new institutions out of the public funds; in fact, that every good reason shows it to be not real, but only apparent. The increase of general paralysis in France is the exception to this rule. "Whenever and wherever a second hospital has been opened in any State, and placed in a district remote from the one previously in operation, the people who sent a few patients to this distant institution now send many to the hospital which has been brought to their neighbourhood." In regard to the best size of an Asylum, he says, "Our observation of the practical workings of Asylums of all sizes compels the conviction that *all things* taken into consideration, the smaller number (250) is the best, and that under no circumstances should that number be exceeded under one roof." "This might be supplemented by additional separate buildings for the accommodation of 150 more." "We may as well make up our minds now as at any future time that every community of 450 or 500 persons will have to support or provide for the treatment and care of one insane person." After discussing the question of separating the incurable from the curable patients, he sums up, "candour compels us to say that our observations of the

results of the two systems force us to the conclusion that separation is wrong in principle and detrimental to the best interest of the insane." "With regard to the results of treatment, the facts elicited are altogether in favour of non-separation, the per centage of the cures being less, and that of deaths greatest, in those countries where the system of separation is most generally pursued."

In regard to the general government of Asylums, he says, "The vigilance exercised by the Boards of Commissioners in Great Britain, and the admirable organization above referred to (no Superintendent being chosen who has not been an assistant, when chosen having complete control, &c.), make their system superior to any that elsewhere exists, and should be adopted in all countries with centralized governments and circumscribed boundaries." Dr. Wilkins thinks decidedly that the insane cannot be kept and cured in their homes in California, and that the system of boarding out is not applicable to the United States on account of its greater cost there than Asylum provision. The liberality of Dr. Wilkins' views is thus expressed:—"Any attempt to save money by failing to provide for the insane is, indeed, poor economy, and worse philanthropy. Let us, therefore, adhere firmly to the policy we have so wisely inaugurated, and which has placed us in the front rank among the States of the Union and the nations of the world, and build Asylums for all of our people who may be so unfortunate as to require their use and need their healing influence."

Dr. Wilkins concludes his report by expressing in the most cordial way his obligations and thanks to the authorities in lunacy matters in Europe, who had given him information and assistance. Those who had the pleasure of making his acquaintance in this country retain a pleasant impression of their personal intercourse with Dr. Wilkins, and warmly congratulate him on the successful completion of a mission which will always be a credit to himself and to the philanthropy of his far Western State.

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*The West Riding Lunatic Asylum Medical Reports.* Edited by J. CRICHTON BROWNE, M.D. Vol. II. 1872.

Dr. Wilkie Burman begins this second volume of Reports with a valuable paper on the use of conia in subcutaneous injection. The *succus conii* varies very much in strength,

and must be given in very large doses, in order to obtain its full physiological effect. Of the best succus which he could procure, Dr. Burman found that it took flʒi to have a decided physiological effect upon himself. Because of the uncertainty of the preparation, and of the difficulty of giving such large doses, he was induced to try what could be done by the subcutaneous injection of the liquid alkaloid. It has a sharp alkaline reaction; so that it is necessary to neutralise it with hydrochloric or acetic acid, and afterwards to dissolve in a little spirit and water. In this way he makes a solution of which five drops are equivalent to one drop of the alkaloid conia and to about flʒi of the succus. With this solution he has committed great slaughter among dogs, rabbits, and cats. He has also tried its physiological effect upon himself and his colleagues, and its therapeutical action in various cases of mania, acute, chronic, and recurrent. The result is that he finds that in cases of *mania* it subdues motor excitement, wards off emaciation and exhaustion, and promotes recovery, and that it does not lead to any disturbance of the digestive functions or interference with the circulation. In combination with morphia, he believes the effects to be directly antagonistic to the condition of maniacal excitement, and that accordingly the drugs may be used together with great success in the treatment of mania. The misfortune is, however, that the alkaloid is almost as uncertain a preparation as the succus; it varies considerably in strength, and may be rendered dangerous or unfit for use on account of impurity. In fact, being a liquid alkaloid, one can never be sure of its purity, and we doubt whether it will, or ought to, come into general use until it has been obtained in a crystalized state. We might suggest to Dr. Burman to try in an equally careful and useful manner the effects of the alkaloid Hyoscamine, which might produce most of the good effects of conia.

The second article, "On the Minute Structure of the Cortical Substance of the Brain," by Mr. Herbert Major, contains the results of his observations in *one* case of what he calls "Chronic Brain Wasting." Instead of finding the outer layer of grey matter delicate and homogeneous, with few corpuscles of the neuroglia, as is the condition in health, he finds these corpuscles in large number, and in some instances he discovers that it has a coarse and slightly fibrillated appearance. In almost every instance he has found this region to be the seat of more or less marked change. In the deeper layers of the grey matter he finds that instead of

the distinct and definite arrangement of nerve-cells natural in health, these are scattered in an irregular manner and without any apparent order. "This fact," he says, "coupled with the circumstance that they seem to be deficient in number, to my mind affords pretty conclusive evidence that some have disappeared." Obviously further enquiries must be made before Mr. Major's observations are accepted, and we are glad to see that he proposes to continue his investigations.

Dr. Sutherland has made a careful enquiry into the condition of the menstrual function in upwards of five hundred inmates of the West Riding Asylum, and has arrived at the following general conclusions:—

1.—That in idiocy and cretinism puberty is usually delayed or absent.

2.—That in epileptic insanity the fits are generally increased in number, and that the patients frequently become excited at the catamenial period.

3.—That in mania exacerbations of excitement usually occur at the menstrual period, and that a state of intense excitement is almost continuous in patients suffering from menorrhagia.

4.—That in melancholia a large proportion of patients suffer from amenorrhœa.

5.—That in dementia the patients usually menstruate in a normal, healthy manner.

6.—That in general paralysis the change of life frequently occurs early.

7.—That very rarely the catamenia reappear in aged insane women after a prolonged cessation.

Dr. Mitchell, the Medical Superintendent of the South Yorkshire Asylum, contributes the results of some experiments to ascertain the effects of ether and nitrous oxide combined, to which he adds some general observations on stimulants. He finds that the nitrous oxide neutralises the pungency of the vapours of ether and chloroform, when combined with them, and so removes the sense of suffocation experienced when they are breathed alone; that in his own case no vomiting has followed the inhalation of ether and nitrous oxide, although he vomits after the inhalation of even moderate quantities of chloroform; and that even when the profoundest anæsthesia has been produced, there has never occurred that deep lividity of the face and the convul-

sive twitchings which so frequently accompany the administration of the pure nitrous oxide.

His general observations on the nature and mode of action of so-called stimulants will be found instructive and suggestive. He combats Dr. Anstie's views that stimulants, in moderate doses, act as food and exalt vital powers, maintaining that, in whatever dose administered, they lower the vital activities. "Stimulants, sedatives, or whatever other names we choose to give them, as well in small as in large doses, in the earlier no less than in the later stages of their operation, disable the powers of life by—in the words of Dr. Harley:—"Destroying the power of the tissues and fluids of the body to absorb oxygen and exhale carbonic acid;" and there is no such thing as stimulation, as the term is generally understood." For the facts which he brings together, and the arguments which he uses in support of this opinion, we must refer to the paper itself, which will well repay perusal.

Dr. Crichton Browne discourses at length on "Cranial Injuries and Mental Diseases;" Mr. Pedler writes a paper on "Puerperal Mania;" and Mr. Major describes and figures an instrument for determining the depth of the grey matter of the cerebral convolutions. Dr. Nicol contributes a paper on a very important subject—"The Mental Symptoms of Ordinary Disease." Though suggestive on some points, it is sketchy, and scarcely does justice to the amount of investigation which has been actually made. Like some other papers in this volume, it has the appearance of being written because it was thought necessary to write something, rather than from the necessity of communicating any positive knowledge. There are other papers in the volume—one being an elaborate discussion on the "Impairment of Language, the Result of Cerebral Disease," by Mr. W. A. F. Browne, the late Commissioner in Lunacy for Scotland—of which we cannot now speak. The volume ends with a list of the Committee of Visitors of the Asylum, of the resident Medical Officers, and of the names of the gentlemen who attended Dr. Crichton Browne's Lectures on Mental Diseases during the Summer Session, 1872. Though these gentlemen, no doubt, deserve immortal honour for what they did, we think the list of their names had better have been omitted.

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*On the Scientific Value of the Legal Tests of Insanity.* A Paper read before the Metropolitan Counties Branch of the British Medical Association. By J. RUSSELL REYNOLDS, M.D., F.R.S.

*Responsibility and Disease.* An Essay. By J. H. BALFOUR BROWNE, Esq., Barrister-at-Law.

Dr. Reynolds has given an unfortunate title to his paper, throughout which we see with surprise that he exhibits a misconception of the legal standpoint. The lawyer does not set up any *test of insanity* in criminal cases; what he does set up is a *test of responsibility*—quite a different matter. It has always been the law of this country that a madman may be responsible for criminal acts, and that it is only a certain kind of insanity which justly exempts him from the penal consequences of his acts. There is no such thing as a “plea of insanity;” the plea is a plea of “Not Guilty;” and the evidence in support of it, when insanity is alleged, must be such as proves the presence, not of insanity, but of such insanity as destroys responsibility. What medical men have to show, therefore, if they would convince the lawyers, is that insanity in any degree or in any form renders the person suffering from it irresponsible for a criminal act. They must prove, in fact, that when an insane person commits a crime exactly in the same way, and, so far as can be judged, from the same motives as a sane man, when he commits a crime which seems altogether unconnected with his madness, he ought not to be punished for it. As a matter of fact, it cannot be questioned that all madmen are not entirely deprived of responsibility; and that the motives which influence sane persons—the fear of punishment and the hope of reward—do influence them. When Dr. Reynolds says that “It is simply monstrous that the ‘knowledge of the difference between right and wrong’ should be made the test of insanity,” the lawyers may well agree with him; but they will at the same time say they never conceived such knowledge, or absence of knowledge, to be a test of insanity; and will point triumphantly to his paper as an illustration of the impossibility of making the medical mind realise the legal standpoint. When speaking of civil capacity, Dr. Reynolds says “that it would be scientifically absurd and morally wrong to deprive a man of all power because he is deprived by disease of some.” The lawyers will ask him whether it is not in like manner scientifically absurd and morally wrong to deprive a

man of all responsibility because he is deprived by disease of some?

Since writing the above, we have received Mr. Balfour Browne's essay, in which the legal position is clearly defined, and Dr. Reynolds' arguments are criticised with rhetorical vigour. He points out that the province of the lawyer is not mind but conduct, and that the question for him is to discover not whether insanity *really exists or not*, but whether it can be *proved to exist*, and, if proved to exist, whether it is of such a nature as to exempt the individual from the consequences of a criminal act. It must needs be, he says, that offences come; injustice is a necessity of justice; under some circumstances it would be right that the innocent man should be punished; and instead of its being "Woe" unto the Law by which offences come, it is its virtue or its excuse that therein it follows Nature's example. "If Law sacrifices a few innocents, what does Nature do? Does she not sacrifice all living things, good and evil, just and unjust, in her own good time, for the benefit of the race? We scarcely think Nature barbarous." Whether we do or not—and it would not be impossible to draw up a strong bill of indictment against her—we certainly do not feel sufficient assurance of the wisdom and discretion of lawyers, or of any other class of men, to allow the justification of their proceedings by such an argument drawn from Nature's doings. It is bad enough to be crushed ruthlessly into nothingness by Nature as a whole, although we may dimly see it to be in the accomplishment of a great destiny, and "faintly trust the larger hope;" but that any or every little fraction of her agency should arrogate like power, as may seem good to it, is to ask too much from human patience or human stolidity. Medical men may admit Mr. Browne's argument that the object of the law is to discover whether insanity can be proved to exist, but may at the same time justly object to what they consider the inadequate and absurd means which the law adopts to discover the proof. They cannot, in fact, be brought to acknowledge that a common jury is the best tribunal to decide upon the facts which indicate the diseases that are included under the general name of insanity; to ask such a jury to do so, they think, is little better than it would be to ask them to decide upon the symptoms which indicate fever or pneumonia or any other disease. Mr. Browne differs from them; he does not see "why any different method of procedure should be



adopted in relation to the insane than (from?) that which is adopted in relation to the sane," and he quotes as he has done before, the opinion of the present Chairman of the Commissioners in Lunacy, as that of one who has had no little experience of mental disease. "That persons of common sense, conversant with the world, and having a practical knowledge of mankind, if brought into the presence of a lunatic, would in a short time find out whether he was or was not capable of managing his affairs." If that be so, there is an end of the whole matter, and it will be unnecessary for Mr. Browne to quote this opinion any more. If, however, he should deem it necessary to do so, he might strengthen it by quoting also the opinion of Lord Westbury, who, condemning the "evil habit which has grown up of assuming that insanity was a physical disease, and not a subject of moral inquiry," maintained that it was not necessary "that a man should have studied the subject of insanity in order to form a conclusion whether a man was or was not a lunatic." Lord Westbury was Lord Chancellor when he gave this opinion, the legal guardian of lunatics, the head of the law, invested with all the powers and patronage belonging to that office; and though not so now, it is just possible that in the vicissitudes of political life he may become Lord High Chancellor again.

Mr. Browne, who heedlessly follows Dr. Reynolds in speaking of *the legal test of insanity*, discusses the value of the so-called test in a vigorous criticism of Dr. Reynolds' paper. His conclusion is, that while it may rightly remain the same in substance it should be different in form. "It should be re-expressed, and that with the view of bringing out the fact that the *power of choice* is the real test of sanity, and that to make any choice efficient there must be a knowledge of right and wrong, of the permitted or of the forbidden."

Mr. Browne, as a lawyer, should study the most recent American decisions, especially those of the judges in the New Hampshire Court, in the cases of *State v. Pike* and *State v. Jones*. He will find that it is not medical men only who think the criterion of the English Common Law absurd in principle and iniquitous in operation. He would do well, too, to reform his style in some respects. When Mr. Browne insinuates of a gentleman of eminence, as he does of Dr. Reynolds, that he has never read the judgment in a case which he professes to quote, but has only got his knowledge at second hand, he is guilty of what in any case would be

unwarrantable rudeness, but what in this case is, as we know, an unjust insinuation. Would Mr. Browne have ventured to suggest such a charge of false pretence in conversation with Dr. Reynolds? If not, why should he be forgetful of good manners when he puts his pen to paper?

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*A Study of Some Points in the Pathology of Cerebral Hæmorrhage.* By C. H. BOUCHARD, M.D. Translated from the French, with Notes by T. J. Maclagan, M.D., 1872.

This slender volume is the result of genuine scientific observation, and Dr. Maclagan has done well to translate it into English. Dr. Bouchard has set himself to investigate the real cause and the specific lesion of the disease *cerebral hæmorrhage*. He dismisses the local and general changes which lead to increased tension of the blood in the vessels of the brain, as playing but a very limited part in the pathology of cerebral hæmorrhage, and points out that the softening which is frequently found around hæmorrhagic cavities is secondary—that it results chiefly from the imbibition of the serum of the blood, but partly also from atrophic degeneration of the torn nerve-tubes, and sometimes also from slight inflammation of the lacerated tissue; it is not really *pre-hæmorrhagic softening*. The existence of softening appears to exercise no influence in determining the seat of an ulterior hæmorrhage; in fact, hæmorrhage into the interior of an old softening is extremely rare, and when, in exceptional cases, such hæmorrhage does occur, it may just as well be attributed to changes in the vessels as to diminished support of the surrounding tissue.

To what changes then must we look for an explanation of cerebral hæmorrhage? To appreciable changes in the structure of the vessels of the brain, which may diminish their resistance and lead to the production of cerebral hæmorrhage. Primary fatty changes in the capillaries of the brain have a real existence. This condition, however, is not very rare among old people, nor does it appear to be sufficiently marked to be a potent cause of hæmorrhage. Moreover, hæmorrhage frequently occurs in persons who present no trace of this change. Independently of old age, this primary fatty change in the capillaries may occur in certain diseases, and may sometimes be accompanied by ruptures and extravasations. Virchow has seen the degeneration in cases of chlorosis, and Bouchard in children affected with chronic

diseases, especially with diabetes mellitus. Nor is atheroma of the arteries the essential cause of cerebral hæmorrhage; for although it is more frequent in those who die of cerebral hæmorrhage than in those who present no disease of the brain, the difference is not very considerable, the arterial system being perfectly free from it in 18 per cent. of the cases of hæmorrhage occurring in old people. The most frequent cause is a hitherto undescribed change of the small arteries of the brain, leading to the formation of miliary aneurisms on the small arteries; these aneurisms varying in size from that of a millet seed to that of a pin's head. They are constantly met with in old people having either old or recent hæmorrhagic cavities in their brains, and they have also been found in some cases in which hæmorrhage, though imminent, has not yet taken place. The change consists essentially in an exaggerated and often enormous multiplication of the nuclei in the substance of the arterial coats, and in atrophy of the muscular coat, followed by true aneurisms. The hæmorrhage appears generally to result from the rupture of these aneurisms. Along with the disappearance of the muscular elements there is frequently observed a general dilatation of the vessel, which is constricted here and there at the points where the circular fibres remain; whence results a slightly moniliform appearance. M. Bouchard has seen these fusiform dilatations at points where the muscular fibres had disappeared in arterioles from the convolutions of paralytic lunatics. For the further description of these miliary aneurisms, which are visible to the naked eye as little globular particles, and which bear to the cerebral hæmorrhage of old people the same relation that atheroma does to senile softening, we must refer our readers to M. Bouchard's instructive essay.

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*The Education of the Feelings: A Moral System, revised and abridged for Secular Schools.* By CHARLES BRAY. Fourth Edition. Longmans and Co.

The appearance of a fourth edition of this book renders it unnecessary to say anything in recommendation of it. The author has abandoned the phrenological nomenclature which was adopted in former editions; a change which will, we think, add to the usefulness of the work. It is a work well adapted not only for the use of schools, but of persons who have ceased to go to school.

## PART III.—PSYCHOLOGICAL RETROSPECT.

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### 1.—*German Retrospect.*

By A. ADDISON, L.R.C.P. and S. Ed.

The present parcel of German Psychological Literature submitted to us may be divided into three important groups:—

1. Papers on the action and effect of remedies.
2. A paper on Syphilitic Mental Disease, of which so little is known in this country, and which may be regarded as a contribution to "Skae's Classification of Mental Diseases."
3. Miscellaneous cases, papers, and facts, which usually go to swell the Retrospect.

#### *The Action of Bromide of Potassium.*

In the first group the action and effect of bromide of potassium and hydrate of chloral are considered at some length and in detail. In the *Correspondenz Blatt der deutschen Gesellschaft für Psychiatrie und Gerichtliche Psychologie*, Nro. 6, Juni, 1872, a contribution by Dr. Katz on the value of bromide of potassium, gives the critic an opportunity of collecting the material scattered in literature, of sifting the observations, and of drawing attention to the most important results. Opinions as to the value of the remedy have been drawn from many sides; some have praised it to the skies as a calmative and soporific medicine, while on the other hand it has been decried as perfectly useless. While most works on the subject have been consulted, and the recent discussion on bromide of potassium in the *Société Médico-Psychologique* has been extensively used, it appears that no reference has been made to the excellent and thoroughly scientific paper of Dr. Clouston, published in the "Journal of Mental Science" for October, 1868. The facts of many of the French physicians are inexactly recorded and vaguely stated, while in the essay referred to the results are founded on a numerical basis and drawn from a rigid exactitude of research, which, it is to be regretted, have not claimed the attention of our German confrères.

The first observations on the effect of bromide of potassium on the nervous system date five years back, when it obtained the most extended application as an anti-spasmodic, anti-convulsive, and anæsthetic remedy in general and local hyperæsthesia, &c. At that time the first psychological experiments were made by Huette and Rames. They observed, after the administration of 10-15 grammes for some

days, headache, sleepiness, deafness and stupor, followed by anæsthesia of the conjunctiva, *increased appetite and constipation*. In large doses they observed catarrh of the stomach and intestines with anæsthesia of the larynx and pharynx. They also detected depression of the sexual power.

Later, Voisin stated (1866) that he had met with a disturbance of the articulation even approaching to complete aphasia. He also observed the hypnotic effect, but he regarded it as due rather to a certain kind of intoxication. He also drew attention to skin eruptions of all kinds (ague, erythema, &c.). Labord found that bromide of potassium increased the reflex activity of the spinal marrow. Martin d'Amunette and Pelvet state that this drug acts directly upon the tissue by destroying the function of the sensitive and motory nerves. Eulenburg and Guttman are of opinion, however, that the disturbance proceeds from its influence upon the cerebro-spinal system. In 1869, Lewitzky declared that bromide of potassium lessened the reflex irritability by its action on the spinal marrow.

The author of the treatise serving for this notice, in order to solve all these contradictions, has made a series of experiments on man and animals, from which he deduces the following conclusions:—

Applied locally it has no sedative effect; it irritates the conjunctiva even to inflammation, but does not diminish sensation, and creates no anæsthesia, but a somewhat increased sensibility. Taken internally it acts as a sedative upon the reflex activity, and upon the mucus membrane of the eye, the throat, the pharynx, and the trachea. The constipation it causes probably proceeds from anæsthesia of the mucus membrane of the intestines, and the absence of peristaltic motion caused by the drug. It increases the appetite. In doses of 15 grammes daily, symptoms of poisoning occur after four to six days, a disagreeable feeling in the head, difficulty in thinking, and disturbances of mobility, which disappear on the cessation of the medicine. Bromide of sodium acts like common salt. The action of potassium is quite different from that of the former; it considerably lessens the pulse (the bromide of sodium never), and never causes anæsthesia.

To these notices the critic adds something from other observers.

Schouten, from administration of the potass-compound (bromide of potassium), has, without exception, observed an increase in the frequency of the pulse, while the bromide of soda never acted on the circulation. He found, by some exact experiments on the pressure of the blood, that the bromide of potassium accelerates the frequency of the pulse, but at the same time reduces the blood-pressure. Kemmerich also observed that the respiration was diminished.

It may be interesting to our readers to know the most recent experience as to the effect of bromide of potassium in epilepsy. After its administration, Falret observed anæsthesia of the palate, but as this occurred in epileptics who had not taken the medicine, it cannot be regarded as due to the drug. He always saw eruptions of

the skin, especially on the shoulders and back. Of 50 patients the epilepsy was not touched in 25; in the other half an amelioration was noticed. Bromide of potassium has less action in epilepsy combined with hemiplegia, or other perceptible cerebral disturbances and deeper mental diseases. Its action is most influential in pure, distinctly separate and distant attacks. The fits of the night disappear sooner than those of the day; so, too, the maniacal excitement abates sooner than the epileptic attacks. Fits of giddiness are the most obdurate. He states that the administration of this drug may lessen the intelligence and the memory, and be followed by somnolence and coma.

Morel in many cases of spermatorrhœa found an essential amelioration.

Legrand de Saulle has never seen any of these disagreeable effects when the preparation was pure. With it he has treated 138 epileptics; of these he has cured 10, essentially ameliorated 19, rendered the fits of 45 milder, and left 64 without result. He recommends bromide of ammonium in *congestion of the brain, chronic meningitis, and old apoplexies.*

Voisin has noted salivation, but no anæsthesia of the palate, rather a lessening of the reflex excitability of the posterior palate, the base of the tongue, and the epiglottis. Lowering of the sexual power he almost constantly observed, and only in some few cases the contrary condition (pollution). He also found difficulty of breathing, with dry cough; the anæsthesia of the skin he ascribes to a central cause; the eruptions he has almost constantly observed. With very high doses he saw a condition of intoxication, accompanied by maniacal outbreaks, hallucinations, and trembling of the limbs. He has had beneficial effects not only in idiopathic epilepsy, but also in that form accompanying brain disease, cretinism, idiocy, and malformation of the skull. In epilepsy of children the drug has a less quick action.

Ravin-Bussièrè (Eng. des hop, c. 26) highly recommends the bromide of potassium, but only gives it with orange syrup, in which form the stomach bears it.

Gimbert, in consequence of its prejudicial action upon the stomach, prefers to give it in the form of clysters (Bull de Mer, 81, p. 461. Nov. 30, 1871), and even recommends it for the obstinate sickness of pregnancy.

The critic, in conclusion, cannot help producing a contribution, which is all the more important as it comes from one of the most distinguished alienists of Germany, who has published some excellent aphorisms upon the pathogenesis and therapeutics of epilepsy. In this treatise Spinholtz observes that since 1864 bromide of potassium has been his chief specific for epilepsy, and it he has to thank for the majority of his cures. He also points out that the drug has warm friends and as decided opponents; the latter chiefly among the alienists, since in their practice lengthened and complicated cases present no beneficial results. Spinholtz did not give the remedy in combination with a

seton in the back of the neck, and its influence in all cases was unmistakable. In old cases, too, bromide of potassium, he observes, has done more good than any other medicament tried in such maladies. It was well borne, and, in doses of 10 grammes, remained without action upon the intestines, the trachea, the lungs and heart, but acted with some irritation upon the throat and the bladder. With higher doses, not unfrequently a very disagreeable feeling was produced, ending in a falling off of health, with lengthened and very slow recovery, and with acne and eczema.

Spinholtz gives as the results of his observations:—

1.—Bromide of potassium has no narcotic or hypnotic effect, but it exercises an extended anti-spasmodic, anti-convulsive action in conditions of increased central Motility and sensibility, in abnormally excited irritability of several of the cerebral and spinal organs, particularly the medulla oblongata.

2.—After six years' experience within and without Institutions, Spinholtz must assign to bromide of potassium the first rank amongst anti-epileptics, an opinion with which Dr. Laurent, of Bordeaux, agrees. He states that by a continued and methodical administration, partly by itself and partly by a simultaneous local application, it can cure idiopathic and sympathetic epilepsy, or ameliorate their symptoms, and he declares that this action is brought about by lowering the excited irritability of the nervous centres, particularly of the medulla.

#### *Hydrate of Chloral.*

The first subject connected with hydrate of chloral is a remarkable effect of this drug first noticed by Dr. Volland, and now given in more detail by H. Schule, in the *All. Zeitschrift für Psychiatrie*, Bd., xxviii., Heft. 1.

Soon after hydrate of chloral had come into application in the Institution of Vienna, special complaints were made by one and the other patient of temporary internal heat and congestion of the head, though all were loud in praise of the soporific action of the drug. This symptom, first regarded as an eruption by Schule, was soon recognised as being entirely dependent on the use of chloral. The heat and redness of head did not arise immediately or at any definite time after the administration, but not until small quantities of beer or wine had been taken. In every case the medicine had to be used for several days, as if the system must first be chloralised to the requisite degree to let the eruption appear. This symptom did not disappear immediately after the administration of the drug was abandoned, but every day it became weaker and weaker, and finally passed away in from four to six days. Once known, these feelings and appearances could be most perfectly produced experimentally. Schule demonstrated them in two minutely recorded cases, and, by an ophthalmic examination, detected a congestive condition in the interior of the skull. The

epiploic veins which, before the taking of the beer, were completely filled in a chloralised patient, became remarkably broader and of a darker red, while the epiploic arteries which before were but weak, became developed into deep filled trunks and branches; even the finest twigs reached an exquisite development. The pulse rose from 84 to 104. Schule distinctly shows by his cases that the chloralisation of the body must reach a certain height before the characteristic changes can take place in the innervation of the heart and vessels, and that the *individual* irritability fixed the quantity sufficient to produce the eruption. These clinical facts are given in the following conclusions:—

1.—The use of chloral produces a disposition to fluxionary hyperæmia with increased and strengthened heart action. This symptom first shows itself in the head, which is most liable to it, dilating and overfilling the vessels, and giving rise to an erythema, sometimes in spots, but more generally diffuse.

2.—This congestion, shortly designated as chloral rash, is latent till produced by an irritation of the muscular system, when it makes its appearance with an intensity and rapidity parallel to the degree of chloralisation.

The irritation of common spirits, wines or beer, even in the most moderate quantities, as also the altered condition of the vascular nerves, caused by digestion after a meal, are sufficient to produce the chloral rash. The *sufficiency* of the irritation is individually different, and depends on the vascular irritability of the individual.

3.—The time sufficient to bring round the system to this fluxionary disposition is also individually different.

4.—After a long-continued use of chloral a remarkable change of nutrition occurred in one case (rapid and immoderate corpulency, continued hunger, weakness of the muscles) with disturbances of the respiration.

Schule, grounding his opinion on the basis of his cases, believes that the want of energy (anenergie) in the vessels of the head, produced by the chloral, and to which the arterial fluxion of the brain and countenance is due, is to be placed in the vaso-motor centre of the medulla oblongata. A progressive, paralysing influence from this organ upon the vagus nerve would explain the almost instant acceleration of the heart, supposing that this symptom were not a simple result of increased mechanical power and repressed pressure.

The numerous cases where bad symptoms or death have occurred after the administration of hydrate of chloral, the difficulty of determining the minimum dose which may induce symptoms of poisoning, and the different circumstances which may cause mismanagement of the chloral by the patient, and thus bring about a fatal result, have induced Dr. Erlenmeyer, jun., to take up this subject in the "Correspondenz-Blatt der Deutschen Gesellschaft für Psychiatrie und Gerichtliche Psychologie." (Jahrgang 18, No. 2, Feb., 1872.)



After thoroughly describing the symptoms of poisoning, he recommends, as the most important remedy, the immediate removal of the chloral still in the stomach, which can always be effected by the stomach-pump, or by producing sickness by mechanical irritation of the throat and œsophagus. If this treatment be not successful, the chloral must be still further diluted by the introduction of large quantities of fluid. For this purpose, not only warm water, but coffee, tea, or rum, may be used. By this method an irritating influence is exercised upon the mucous membrane of the stomach, all the more necessary since all the remedies applied to the external skin are quite inert.

The second recommendation is the excitation of the respiration, which may be effected by the double-working bellows of Spencer Watson, or by irritation of the respiratory muscles and the phrenic nerve, by an induction apparatus.

The third indication comprises the administration of the so-called antidotes of chloral, which may be given by subcutaneous injection. Among these is strychnine, though its effect is by no means certain, and sometimes dangerous, as stated by Von Arnould ("La Strychnine et le Chloral, Press. Med. Pier, 1870"), who in a case of chloral poisoning gave this drug, and produced a tetanus, which rapidly ended in death.

The administration of the extract of Calabar bean is not more certain nor less important. Chloral prevents the bad effects of the latter, but the bean does not act with equal efficacy upon the symptoms of chloral poisoning. Another proposed remedy is the subcutaneous administration of musk. The injection of caustic ammonia appears to be most beneficial, as it most rapidly quickens the respiration. Before applying it no delay should be made in removing the chloral from the stomach.

Should all the foregoing remedies be of no avail, the author, judging from the analogy of chloral to that of other blood poisons, recommends transfusion, which he then enters upon describing the operation and the actual transfusion first carried out by Von Graefe, and more recently by Professor Hute.

In connection with the foregoing papers, the same author (Dr. Erlenmeyer, junr., of Bendorf, in the "Correspondenz-Blatt der Deutschen Gesellschaft für Psychiatrie und Gerichtliche Psychologie," July, 1872, No. 7), gives a further series of observations, by himself and by others, upon chloral and its combination with opium. As regards the mode of administration, he has already expressed his most decided opposition to subcutaneous injection, as by this method very *dangerous inflammations of the skin* have been produced, and *because the result is not always certain*. He thinks that in this way decomposition of the drug probably takes place, or the quantity thrown into the system is not sufficiently large. This method, however, is recommended by Dr. Verga and by Dr.

Valsnam, also by Dr. Alois Monti ("Jahrf. für Kinder Heilkunde"), Dr. Stark ("Würt. Cor.," xli., No. 38), is unfavourable to injection, and so is Hauren, from his own experience. Fischein Pfuzheim, after subcutaneous injection, saw intense inflammation and gangrene. Very different opinions have been expressed anent its administration in the form of clysters. Dr. Monti, who, in young children, has seen a better result from its administration in this form than by the internal mode, is prejudiced against it. Other parties have also expressed their opposition to it. In the Bendorf Institution it has been given by clysters without danger, and, in his consulting practice, Dr. Erlenmeyer, sen., has frequently recommended chloral clysters. Its action is so certain that in all cases where the drug produces any stomachic or intestinal ailment, this mode of administration is to be recommended. Dr. Fischer in Pforzheim gives chloral not only in clysters, but also in embrocations and fomentations.

The combination of chloral with morphia, already mentioned, is made in different ways. The two drugs have been given at the same time by different methods, chloral by the mouth or the rectum, and morphia by subcutaneous injection. In these two ways *no danger has ever been seen*, but in every case a *more rapid and certain result*. Jolly and Pelman declare this combination dangerous. In the case recorded by them somnolence, œdema of the lungs, and death occurred. Dr. Stark is unfavourable to the use of chloral combined with morphia. Lastly, it may be stated that chloral, in cases where it produced gastric disturbance, has been neutralised with bi-carbonate of soda. The result in every case was excellent, and the hypnotic effect certain. As to the dose of chloral, opinions are still very different. Dr. Erlenmeyer states that a  $\frac{1}{2}$  oz. to a 6 oz. mixture was generally prescribed, and of this at night  $\frac{1}{2}$  to 2 table-spoonfuls were administered (2 scruples, or 2·5 grammes). In some particularly obstinate cases as much as 4 grammes were given without causing any dangerous symptoms. Five grammes were never used, because a series of observations had been made of dangerous symptoms setting in after this dose.

W. Hunt Watkins ("Brit. Med. Journ.") and Crichton Browne ("Lancet," i., 13, 14) have recently reported cases in which death followed upon 5 grammes. It is, however, surprising that Fischer, without seeing any danger, has risen to a dose of 8 or 9 grammes. Dr. Kunst recommends 1 drachm as the most suitable dose. Numerous cases in medical literature prove that even a small dose may be dangerous, and that one must be careful in the administration of chloral.

Schlossberger, after 1·8 grammes, observed dangerous symptoms set in, facies decomposita, with loss of consciousness, imperceptible pulse, and cessation of respiration. The application of artificial respiration and the administration of stimulants restored the patient, but the intoxication and prostration continued till next morning. After

waking he stated that he had not slept at all, but was conscious of everything that went on around him, without being in a position to move himself or speak a word.

Tuke also saw the same symptoms in a drinker after a dose of 1·8 grammes. Fuller has seen the cardiac impulse disappear in a case of Bright's disease. In St. George's Hospital at London a case of death occurred after 1·8 grammes, and Webb has observed dangerous symptoms after the same dose.

It is quite certain that difference of action does not always depend on difference in the purity of the preparation, but mostly on the individuality of the patient. Cardiac and lung ailments certainly demand the greatest care, although Dr. Fischer does not consider lung disease to be a contra-indication. The kind of preparation, however, is decidedly not without influence.

Dr. Kunst, Assistant Physician in the Virginia Hospital, states that a good result can only be obtained when the preparation is not too old, but freshly used, as under light and other unknown influences it becomes worthless.

Dr. Erlenmeyer also takes advantage of this paper to state that the hydrate of bromal has no hypnotic action, as asserted by different parties. Taken internally, it gives rise to pain and itchiness of the neck and over the stomach, sickness, and diarrhœa. It has already been mentioned that after its use skin eruptions occur. Recently Dr. Crichton Browne has reported urticaria, which Winter Fisher has seen in another case. Purpura has also been observed by Crichton Browne, and, as stated in the notice of a foregoing paper, erythema, by Schule, after the use of chloral. Upon the mode of action of this drug various views have been entertained. When it is observed that in patients who take chloral the use of spirits produces an intense erythema, that after long continued administration chloral causes *decubitus*; that after large doses the cardiac impulse and the respiration become slower, there can be no doubt that this medicine has a powerful paralytic action on the sympathetic. The same view is entertained by Crichton Browne, who ascribes the urticaria and purpura he observed after the use of chloral to paralysis of the vaso-motor nerves, and to the hyperæmia of skin thus caused. This also explains the reason that it has so slight an effect upon mania, and no influence at all upon its duration. The fact as to the drug producing *decubitus* was some time ago published by Dr. Erlenmeyer, sen., who stated that in general progressive paralysis the paralytic symptoms became rapidly worse after its continued use, and again improved after the administration of the drug was abandoned.

#### *Syphilitic Mental Disease.*

The second group consists of the results of a paper in the "Allgemeine Zeitschrift für Psychisch-Gerichtliche Medecin," (Bd. 18, 4 and 5, Heft.), where Dr. Wille takes up the important subject of syphilitic

mental diseases, which in this country is so little known as to warrant an extended consideration. Referring to several papers on this question, published in Germany and elsewhere, he states that the material presented by alienists is very small compared with works upon cerebral syphilis generally, and with the great number of cases in asylums in which syphilis is stated to be the cause of mental disorder. The statistics, too, upon the frequency of this disease as an etiological cause of mental malady are indefinite and contradictory, and are not collected with the necessary care and critical acumen. As an instance, he points out the statistical reports of Illenau, in which syphilis is not even separated from excesses in venery. During the last seven years, in Munsterlingen and Rheinau, in 1,097 insane patients (501 men and 596 women), he himself has observed syphilis in 16 men and 12 women, as an etiological cause, that is  $2\frac{1}{2}$  per cent. on the whole, or 3 per cent. of the men, and 2 per cent. of the women.

From so small a number of cases he is unwilling to admit that syphilis should be so rare a cause of insanity, and states that he is convinced that insanity is more frequently produced by it than appears in the foregoing numbers. For this opinion he gives the following reasons:—1. The statistics are taken from institutions devoted to the admission of a rural population. Others, where the population is derived from great towns, sea coasts, and manufacturing districts, will present a different result. 2. Syphilis is one of the most frequent diseases under certain local conditions, and in its constitutional states the brain with the liver is most frequently affected. Hence mental changes play a great part among the symptoms of cerebral syphilis.

3. Syphilitic patients are seldom received into lunatic asylums, but generally treated privately, or in common hospitals. 4. Confessions as to this disease are difficult to be obtained, either from the patient or from his relatives. Therefore when cicatrices or the usual symptoms of primary or constitutional disease are absent, the diagnosis is made with extreme difficulty, and so there seem fewer cases than in reality there are.

Dr. Wille then proceeds to consider the symptomatology. On account of their importance we give his observations essentially as a translation, with the mere change of personal names.

“Looking upon the symptomatology of this disease, the most important symptom is the mental disturbance, which we shall therefore consider first, although it does not always appear first in the series, but very often after motory and sensitive ailments have taken place.

The first abnormal mental symptoms are psychological disorders and hypochondriacal fears, which generally show themselves specially as syphilophobia or have a more general hypochondriacal or melancholic character. These symptoms occur so regularly, that they may be regarded almost as the regular prodromal stage of the disease. In his essay on “*Syphillis of the Brain*,” Albers has given syphilitic hypo-

chondria as the first stage of this form of mental disease, and states that it may pass into syphilitic typhus or into apoplexy. He does not, however, regard it as a specific brain disease. Leidesdorf also mentions it, but he observes that it may originate in a purely psychological way. He considers that possibly it may be the result of a syphilitic cachexia. Leubuscher states that it is the most frequent form of syphilitic mental disease. Engelsted describes it in more detail as a symptom of constitutional syphilis. Gros and Laucereaux also mention it, and characterise it as Syphilitic Neurosis of the Intelligence, which depends on the chlorosis attending that disease.

After a more or less lengthened continuance of this stage, other symptoms of mental disease are developed. In 77 cases, of which 11 were his own, Dr. Wille has forty times observed a gradual decrease of mental power, which in thirty-four slowly increased from their commencement, and passed into a deeper dementia without the occurrence of any other mental symptom in the interval. In many cases it was specially observed that this weakness of mind in the early stage first shewed itself in a want of memory and a certain forgetfulness. In six cases this symptom was also seen, and the chronic dementia was broken by mental disturbances in the form of mania, melancholia, or acute delirium.

In 15 cases maniacal attacks occurred first, alternated with melancholia for a more or less lengthened time, and also changed with relatively free mental diseases.

In nine cases persistent hypochondriacal melancholic ailments and delusions were observed. Eight times the disease began with symptoms of acute delirium, and five times with monomania of grandeur.

In some cases the after course of the disease shewed symptoms which we are induced to include under the category of moral insanity.

The cases which commenced with acute mental disturbances, also gradually passed into dementia, so that in all older forms of syphilitic mental disease we have to do with primary or secondary dementia. This idea may be generally and emphatically expressed, since the cases in which mental disease ran its course as simple mania, melancholia, or as chronic mania, without being complicated with dementia, were exceedingly rare. However frequently mental syphilitic disease is observed in the form of dementia, it nevertheless runs its course, not as a simple psychological disorder, but just as often is accompanied by other motory and sensitive cerebral disturbances. In somewhat more than half of the cases the same motory symptoms occur, which we know under the name of general progressive paralysis, and which come in as the sequelæ of constitutional syphilis. In this case we have not to do with an absolute paralysis, such as follows other cerebral and spinal diseases. More frequently the symptoms are only disturbances of co-ordination and high degrees of weakness, which Jaksch has termed paralysis of energy (*Energielähmung*). All these conditions may, however, pass into actual paralysis.

Hemiplegia appears somewhat less often. It occurs just as frequently on one side as on the other. More rarely one meets with a paraplegia which in general extends from the lower extremities to the bladder and rectum. The paralysis is often more expressed in the one limb than in the other. A complication with paralysis of some of the extremities is most rarely observed; on the other hand, paralysis of some of the cerebral nerves very often occurs. The oculo-motorius, abducens, trochlearis, and facialis, are frequently affected in this way. As regards the muscles of the eye, these symptoms may occur singly, but also in combination with the foregoing paralytic conditions. In the after stage of syphilitic mental disease taking the course of progressive general paralysis, the nerves of speech and of respiration become especially affected. Cases are, however, described (by Leyden) in which disturbance of speech existed without this connection.

After these paralyzes come spasmodic disturbances, and occupy the most important part of the symptomatology of this disease. The convulsions are either general or hemiplegic, some attended with loss of consciousness, as developed epileptic attacks, some without these symptoms. Besides these distinct convulsions, a simple trembling has been observed, weak convulsions, local spasms, and very frequently only simple attacks of giddiness and disturbances of equilibrium, as occurred in two of Dr. Wille's cases in the most marked way. These convulsions may continue, or may pass into conditions of paralysis. After it has set in they are not observed. Not unfrequently they precede the mental disease, and may also accompany it from its beginning to its end.

Among the disturbances of sensibility and sensuality, paralysis of the optic and hyperæsthesia, which is often followed by anæsthesia of the trigeminus, take the first position. These symptoms may occur on one or both sides.

With these changes are also connected the cranial pains, which so often, with almost constant regularity, are observed in constitutional syphilis. They often occur only during night, but at this time are always most severe, being caused by the warmth of the bed; they are increased by pressure, are deeply seated in the head, or show themselves in frontal or occipital regions.

At the commencement of the disease pains are often observed in the neck and in the extremities in a rheumatic way, and are therefore called rheumatoid. They are also seen in the after course of the malady, and recognised as the signs of osseous and periosteal disease. There is often a general, hyperæsthetic condition of all the nerves, as well of the cerebral as of the skin nerves, which may be so severe in the head as to do harm to every hair. Loss of hearing was often observed, more rarely disturbances of taste and of smell, though they may occur not unfrequently.

The usual conditions of anæsthesia are not unfrequent.

Among cerebral syphilitic disturbances sleeplessness deserves the

first mention as well at the beginning as in the after course of the disease. It may in numerous ways be due to cranial pains, though it may occur as a symptom without severe pain. Besides the anæsthesia alluded to, aphasia was not seldom seen in syphilitic mental disease, sometimes with right-sided hemiplegia, sometimes without that symptom.

While in earlier times it was assumed that syphilitic cerebral disease, and therefore syphilitic mental disorder, did not occur till several years after infection, and then as a tertiary cachectic symptom, a view which was first rebutted by Leubuscher, recent observers have found a different result. We are now quite certain that syphilitic mental disease may occur two months or even two weeks after infection, and certainly with the first secondary symptoms; that is, with the appearance of the first exanthema, or with the general glandular swelling. Indeed, cases have been reported, where, some time after infection, acute mental diseases took place, and where, after their continuance for some time, other symptoms of syphilis, such as Roseola and ulceration of the throat, appeared. This condition especially affects individuals whose brain (Griesinger) is organically troubled, who have previously presented symptoms of abnormal cerebral activity, or in whose families nervous diseases have frequently occurred.

But, as has been stated, syphilitic mental disease does not always appear as the first symptom of disturbed cerebral activity. It is often preceded by apoplectiform and epileptiform attacks, and out of these the mental symptoms are first developed. It may also appear as acute delirium, acute mania, or even in the form of a peculiar precursory stage. In general, the latter shows itself in the form of mental depression with hypochondriacal symptoms more strongly developed. In most cases, however, chronic syphilitic mental disease appears to be developed as a simple dementia, or as a form of monomania, which from the very commencement bears considerable signs of psychical degeneration. The same conditions which regulate the occurrence govern also the course of the disease; it may be acute or chronic. Cases are described which within some weeks terminated one way or other, while others have dragged along for years, until they terminated by chronic marasmus, or by intercurring diseases.

The course is often marked by a certain variety, by a change in the symptoms; sometimes the most severe and threatening ones rapidly disappear and give place to a comparative quiescence, or sometimes intellectual, sometimes convulsive, and sometimes paralytic symptoms take the upper place.

The question as to how far syphilis may give rise to cerebral disturbances and mental diseases, also to what pathological processes these changes are due, has only been determined within the last ten years. For a long time it has been known that there is a mental syphilitic disease, but as to its production our knowledge was by no means certain. In these attempts at explanation the swellings of the bones

have played the greatest part. In the older books which treated on this subject very little was communicated. Even in recent books, Neumann's and Flemming's, 1859, the question of the connection between syphilis and mental disease is treated as quite open, although the possibility of constitutional syphilis giving rise to such disorders is granted. Leidesdorf, in the first edition of his book, accepts syphiletic cachexia as a definite cause for this malady, an assumption which Guislain also sets up.

Griesinger, 1861, describes Periostites with slight inflammation in the dura mater and the soft membranes, and more severe encephalitis and meningitis, as processes to which abnormal mental symptoms may be ascribed. Meanwhile Virchow's great work on the "Nature of the Constitutional Syphilitic Affections" appeared (1859), and opened the way for the investigation of this subject. Since then works on this question have been copious and fruitful. His work upon "Syphilis," in the second volume on Tumours, widened our knowledge of syphilis in all its relations in a most wonderful way.

The material now collected is very rich. From it is seen that all conceivable ailments of the contents of the skull have been found in patients with mental disease who had suffered from constitutional sores. In the great multitude of these changes it was the natural desire of an investigator to find specific alterations for syphilis. If such do not really exist, the discovery of cerebral gummata in connection with the occurrence of such tumours in other organs, corresponds most to what has been sought. The occurrence of cerebral gummata is, however, by no means so frequent as it should be to correspond with the frequency of syphilitic mental diseases. The regressive metamorphoses, with the resorption thus produced, may be of this character, and many cases of cerebral sclerosis, the formation of cicatrices and callosities, and even the softening and formation of cysts, may be regarded as old gummata. But after making the widest allowances a great majority of cases of syphilitic mental disease still remain, in which one has nothing to do with gummata either before or at the post-mortem section. All observers are, therefore, agreed that non-gummous cerebral ailments accompanying syphilis may be none the less syphilitic, just as in other organs no gummata may exist, though they be syphilitically diseased. As regards the other changes which are found in syphilitic mental diseases, amidst the multitudinous variety existing, the discovery of definite alterations which are repeated so often that they may be looked upon as characteristic, is distinctly prominent. Besides caries of the skull and its sequela, in the interior of the brain there are inflammatory softening, due to changes of the walls of the cerebral arteries (calcination, contraction—thrombosis), and in the membranes chronic inflammation.

In the present position of cerebral syphilis we can distinguish the following forms of mental disorder due to that disease :—



1. Irritative forms based upon a cerebral anæmia, following syphilitic infection even from its commencement.
2. Simple inflammatory forms, due to meningitis, and inflammatory softening of the cerebral substance.
3. Neoplastic forms, proceeding from cerebral and meningeal gummata.

Dr. Wille also remarks that the post-mortem section of persons who have suffered from severe cerebral symptoms of this disease shows no such alterations in the brain sufficient to explain the disturbance in the functions of the nervous system.

In the clinical diagnosis of a syphilitic mental disease the fact to which it is due will always form the basis of the examination. If it is stated that a patient has previously suffered from syphilis, the further enquiry will have to do with the discovery of any sequelæ of the primary disease, and with the presence of any constitutional symptoms still existing. In this respect the general diagnostic signs of syphilis, which it is unnecessary to give here in detail, are taken advantage of. Dr. Wille observes here that neither a resultless examination nor the absence of the secondary symptoms can gainsay the existence of this disease. We must enter all the more thoroughly into an examination of the series of symptoms when they raise even a suspicion of a syphilitic origin.

Among mental symptoms examination must first of all be directed to the syphilitic hypochondria, and then to progressive dementia, since most cases of this disease begin or run their course attended by these characteristics. As regards the first, the symptoms are those of hypochondria, of hypochondriacal delusion with special reference to the incurability of a real or supposed specific infection. This is syphilophobia. Amongst these are included doubtful cases of the latter kind, where the infection is merely supposed, and where there is really no syphilis whatever. It is, however, necessary to know, that a whole complex series of similar symptoms have been found in persons who have never suffered from that disease. There is a series of other patients who have had a primary infection, and hold to the thought that they are secondarily affected, that syphilis cannot be rooted out of their body, and that they must sooner or later fall a victim to this disease. These individuals have no symptom of secondary infection, and in no way present any mark of syphilitic cachexia. In consequence of their internal disquietude and anxiety, sleeplessness and nervous symptoms set in, but these have nothing whatever to do with syphilis, and yet are regarded by the patient as the effects of this disease. In such cases anæmia and decline of nutrition may take place; they may become chronic, and pass into mental weakness, or as the result of a highly excited feeling of anguish, terminate in suicide. A case of the latter kind, which had been subjected to the most minute observation, presented not a trace of this disease in the system. But such instances are not to be regarded as belonging to syphilitic

mental disease, but are to be looked upon and treated as simple hypochondriacal melancholics. The marasmus occurring in their course (gradual anæmia, sinking of nutrition) is only the consequence of mental disease acting upon nutrition as in other melancholics. Lastly, there is a third form of hypochondria, which occurs in persons who have previously suffered from syphilis.

Patients of this kind present symptoms of constitutional disease, besides their mental malady, or these may be altogether absent. But in the last case they show at least symptoms of a more or less advanced disturbance of nutrition, of chlorosis, of anæmia, with the well-known pains of the head and limbs, and of gastralgia, such as occur at the beginning of secondary syphilis, or in syphilitic marasmus, when a symptom of the tertiary form. The delusions are not always exclusively fear of syphilis and its consequences, but they are often of a general hypochondriacal or melancholic character, as in other mental diseases. From the latter the mental weakness of this stage is very often to be distinguished by its consequences upon the general psychical condition.

The hypochondria may continue to run on in its own character, it may be cured, or may pass into mania, or symptoms of dementia with paralysis may be developed, so that in many cases it may be regarded as the precursory stage of a severe syphilitic cerebral disease. This form of hypochondria is the only one to be regarded as syphilitic, as it is the only form due to this disease.

The second mental symptom is progressive dementia.

The rapid decline of mental power distinguishes it from the common secondary form, which is developed out of simple physical diseases. It has always this property in common with other ailments complicated with cerebral diseases.

In the symptomatology we have designated the mental decline as dementia without monomania of grandeur, but specially with weakness of memory. Though by this test dementia is distinguished from a certain group of mental disturbances, for instance from paralytic extravagance, it has characteristics in common with a number of other mental groups. In many cases, from the character of this precursory stage, an opinion may be formed upon the nature of the dementia presented. In most instances, however, we shall come to a correct conclusion only by a consideration of the causes and symptoms of value in forming a diagnosis.

This peculiar hypochondria and progressive dementia, when they occur, may therefore raise suspicions of syphilis, but only when they are met with in combination with other symptoms of that constitutional disease, can they be looked upon as expressions of this process.

Among pathological motory cerebral symptoms, general and progressive paralysis is the most important. These motory disturbances cannot be distinguished from those observed in general paralysis of the insane. It is, therefore, evident that out of these alone the diagnosis will receive but few hints. But as soon as these conditions

become complicated with paralysis of some or several of the cerebral nerves, the diagnosis attains greater surety.

Somewhat less frequent than these paralysed conditions are the hemiplegiæ in connection with syphilitic mental disease, but these are only of importance in the diagnosis when they occur simultaneously with other symptoms, as paralysis of cerebral nerves, syphilitic cicatrices, or constitutional symptoms of lues.

Another group of motory pathological symptoms are epileptic and epileptiform attacks, which deserve special attention, when they are limited to one side of the body, and consciousness remains during the fit. With these paralysis of cerebral nerves is often observed. When this condition affects the oculo-motorius, the abducens, the trochlearis and trigeminus, they deserve special consideration.

Paralysis of the abducens and trigeminus upon one side, are generally coetaneous with intra-cranial lues (Graefe). According to the same author, among 60 cases of paralysis of the oculo-motorius 28 arose from syphilis. But not only these specific cerebral affections, but the multifarious disturbances of the cerebral nerves (Lecidet), their successive development (Gros and Lancereaux) and their unexpectedly quick and temporary recurrence are of importance in forming a diagnosis.

Paralysis of some muscles and groups of muscles is given as a symptom by different authors. This condition, however, does not so frequently take place as to cause a suspicion of lues.

Among pathological symptoms cranial pains stand in the first rank; they have frequently been observed in syphilitic mental diseases, and in connection with other circumstances, when they are present, may be taken as a diagnostic aid. Cranial pains, with a nocturnal exacerbation, which show a constant position, increase upon pressure, and especially are produced by the warmth of the bed, are characteristic. Forms of mental disease with this symptom give rise to great suspicion as regards lues. But the remark of Van der Kock must never be forgotten, that such symptoms are also seen in patients who have never been suspected. But the absence of this symptom, with the presence of other supporting facts, must not exclude the diagnosis of lues, for a wide experience shows that mental disease occurs frequently in combination with neuralgic pains, and alternates with these.

Many authors have noticed a double-sided prosopalgia in the majority of cases of syphilis, so that this symptom, in combination with others, may have its true value.

Among anæsthetic conditions, loss of function in the optic appears to take place most frequently. In particular, a sudden and rapid blindness is often observed in syphilitic cerebral diseases.

Other disturbances of sensibility do not generally occur. When Remak asserts that tabes is never syphilitic, this opinion is not consistent with experience.

Of other symptoms, which may yet find consideration, I might mention the rare occurrence of sickness at the commencement of such diseases, but this takes place very frequently in other cerebral maladies. Zeine directs attention to the recurrence of albuminuria in intra-cranial lues; in syphilitic suppuration of bone albuminoid degeneration of the glomeruli may often occur.

Besides these symptoms, the character of the disease at its commencement may assist the formation of a diagnosis. We know that syphilitic mental disease occurs in an acute form, or as acute delirium. Attacks of acute mania set in, and at their very commencement, or after a short precursory stage, are attended by severe symptoms (apoplectiform or epileptiform fits), or the disease begins with a gradual, slow, progressive development of symptoms of mental weakness. Its after course is much more characteristic than the beginning. It is marked by the occurrence of the most multiform symptoms, and by the one group alternating with, or being replaced by, the other. While from observation of one day we see a most severe and critical picture of suffering, in the shortest space of time quite a harmless change may take its place, all danger having yielded to proper treatment. Yet the peculiarity of this course is also observed in paralytic monomania of grandeur, and in hysterical mental diseases, wherefore the examination must occupy itself with the exceptions which these two groups form.

In the diagnosis of the syphilitic nature of a cerebral disease, Bedel gives an especial value to the result of the treatment, but goes too far in the assertion that if specifics do not act there can be no syphilis. Behrand's view, too, that where no other cause can be found to explain a pathological cerebral symptom, syphilis, in consequence of its frequency, may be accepted, would prove a hindrance rather than an aid in coming to a correct conclusion.

The occurrence of progressive dementia with paralysis in individuals who are not, or only but a short time, beyond twenty is of great value in the diagnosis. Experience has shown that progressive paralysis of the insane but very rarely occurs at this age, so that the occurrence of these symptoms in so young persons will always cause a suspicion of constitutional syphilis.

While the clinical diagnosis in many cases is very easy, in others it presents immense difficulties which cannot be overcome, notwithstanding the value of all the foregoing facts. This is all the more important, since in an advanced case of dementia proper examination of the patient must be renounced.

As regards the pathological and anatomical diagnosis, it is only the discovery of gunmata of the cerebrum or membranes that can bring about a sure conclusion as to the syphilitic nature of any disease. The other pathological facts designated as characteristic—caries of the skull with its sequelæ, inflammatory softening of the interior of the brain, with disease of its vessels, and meningitis, occur also under

other conditions. Since the examination of the brain alone allows of no opinion being formed, it becomes necessary to call to our aid the changes which have taken place in other organs.

If gummata be found in other organs, this discovery is of great service in explaining the pathological process. But when they are absent the non-gummosous syphilitic diseases of the liver and kidneys are not so well known as to give anything like sure hints. In cases, however, where section shows no specific change in any organ, even in those where all organs, with the exclusion of processes immediately preceding death, are healthy, and where one has to do only with the cerebral disease, in such the diagnosis is only a diagnosis of probability. In these the most exact clinical examination must be made, and an increase of material worked up in this way will shed a flood of light upon syphilis of the brain and enrich the works of pathological anatomy.

The encephalic foci (Heerde) have recently been described by Virchow and others in young children affected with congenital lues. Virchow regards this interstitial encephalitis as the result of active inflammatory processes. Perhaps continued investigation in this line may enlighten us as to the nature and extent of this pathological process, its relation to the encephalitis of adults, and to syphilis generally. Yet it appears quite certain that this pathological fact will have no specific importance for syphilis of the brain.

As regards meningitis, Griesinger declares a partly diffuse, partly circumscribed thickening of the arachnoid to be specific, while Verdun, Meyer, and, most recently, Maudsley, regard as specific the diffuse exudation glueing the membranes to each other, to the cerebral substance on the one hand, and to the skull on the other.

Beer, taking up Virchow's statement, says that it is quite right to regard meningeal exudations as specific, when they are essentially of a small-celled character, even though there be no growth. This view may be much more certain when these foci are at a distance from the common position of the pachionian granulations. The matter, however, is not so simple, since simple meningeal exudations, however recent they are, have essentially the character of lymphatic cells, so that their distinction from specific deposits will have its difficulties. The reply to Griesinger's assertion, respecting specific meningitis, may be that the case which gave rise to this notice may have had a specific disease. Dr. Wille has six times observed a meningitis of quite the same character as Griesinger has described, without finding in the history of the case the pathological changes in other parts of the body, and in observation during life, any supporting points to favour a specific disease. In two cases he was able absolutely to exclude such a diagnosis. In Griesinger's case other pathological changes, due to lues, are absent, so that it is doubtful whether the form of syphilitic mania described by him may be the true one. It is more certain that this form does not belong exclusively to secondary syphilis.

In many cases the meningitis of syphilis cannot be distinguished from that of other diseases, so that the pathological anatomical diagnosis cannot be made sufficiently often with certainty.

To the conclusion of this section we cannot help adding the expression of Tüingel, that in a given case it is often impossible to come to an opinion upon the connection of cerebral disease with constitutional syphilis, even when clinical observation can be enriched by a post-mortem section.

The prognosis is governed by the symptoms of individual cases. So long as the malady runs its course as a primary mental disease, without further complications, it is not unfavourable. But when convulsions, epileptiform attacks, and fits, with loss of consciousness, set in, it is much more unfavourable, although even then a cure may be effected. The same is the case on the occurrence of paralysis of individual nerves. But once hemiplegiæ and symptoms of progressive paralysis in combination with progressive dementia have set in, the prognosis is then, in the opinion of most authors, very bad. Only Erlenmeyer dissents from this very bad prognosis, while others report cures under these conditions as only exceptions. Hupe states that the prognosis is only in so far favourable when severe cerebral symptoms cause less immediate danger to life than those of other cerebral diseases. Yet there are sufficient cases to show that in spite of the most decided treatment, a rapid and fatal result has followed. But after the cure of a case one must, in consequence of the frequency of relapses, and of latent, active disease, be very careful in giving an opinion. On the other hand, it cannot be doubted, considering the dangerous symptoms one so frequently sees in such patients, that they often rapidly pass away after proper treatment. The treatment is in general that for secondary syphilis. In the primary forms of mental disease, also in the anæmic, the irritative, and in simple inflammatory conditions of the brain, patients should bathe often, should be made to perspire, take iodide of potassium internally, and, above all, good nourishment. Especially in conditions of excitement, one should beware of strong diet and depressing remedies.

Iodide of potassium in such cases has many advantages. Apart from its influence on secondary syphilis, it has a peculiarly symptomatic and favourable action on sleeplessness, cranial pains, and pains of the limbs. The same treatment is applicable to those forms which are complicated with epileptic and paralytic symptoms. Should iodide of potassium not produce an amelioration in a short time, it may be combined with the use of mercury. The physician will then follow the principle of a more powerful nourishment. If under this treatment the condition remains the same, or becomes worse, the ointment cure must then be energetically applied. There are, however, many experienced syphilologists who have had no result in such cases, and many who quite reject it. Yet from time to time observations are always coming up, where in the most desperate cases a good result

from this treatment has been seen. Others would have the ointment cure applied at the very commencement of the symptoms of paralysis, but as experience has always showed that such pathological conditions become decidedly worse after this treatment, Dr. Wille would prefer that a milder form of treatment should be first applied.

If an energetic application of the foregoing remedy does no good, the patient may then be excluded from treatment, as he will not recover. Yet even at this stage it is often necessary to submit some threatening or general secondary symptoms to a specific treatment, which even now may cause a transitory amelioration. With the treatment of syphilitic mental disease, it is absolutely necessary to investigate the relation of the so-called progressive paralysis to this malady. A suggestion was thrown out by Jessen (1857), that paralytic dementia is a syphilitic process, because he had confirmed this condition in almost all the cases observed by him. While Jessen has admitted the possibility that in many cases this state of matters could only be regarded as a complication, recently some northern investigators have definitely tried to establish the identity between cerebral syphilis and general paralysis, and have upheld it to the most recent time. During the previous year Erlenmeyer has expressed his agreement with the foregoing observers to a certain extent, when he asserts that there is scarcely a case of general paralysis in which an earlier syphilitic infection has not existed. Still he does not adopt the consequences of these observers, but admits that the connection between paralysis and an earlier syphilis can rarely be demonstrated.

Ludwig Meyer, latterly Westphal, and most recently Oedmansson, who have specially studied this subject, point out the identity between cerebral syphilis and progressive paralysis, and only admit the relation of a complication between both; while the latter here and there holds a casual connection between both as possible. Griesinger has also joined himself to these. All other observers, who have treated on progressive paralysis of the insane, have not come to a conclusion like the foregoing; indeed, by none of them, with the exception of Wirze, is syphilis even mentioned as a prominent cause in the etiology of general paralysis.

If one reviews the different authors upon general paralysis, almost without exception excesses in venery alone, or in combination with Bacchus, are introduced among the principal causes. Hoffman, then in Switzerland, did not agree with this view, while Neuman regarded the sexual excesses as the only etiological cause.

But, unfortunately, a series of authors have introduced sexual excesses and syphilis under one category. Whenever the two causes come together, they form an etiological cause for not much more than half of the cases of progressive paralysis; indeed, they often do not reach this number. On the other hand, among the other half of the cases, definite etiological causes have been introduced, which have been so often repeated, as to create no doubt of their correctness. Dr

Wille mentions only direct hereditary predisposition, injuries of the head, bodily over exertions, particularly with thorough wetting, shivering, combined with heat, excesses in drinking, or, in a mental respect, excessive speculation, and all internal galling causes, which the fight for existence brings with it.

These causes always have an equal value with excesses in venery and drinking. We can, therefore, with certainty establish the principle that the statistics of the etiological conditions of lunatic asylums do not favour the identity of general paralysis and cerebral syphilis. Moreover, it is the result of experience that cerebral syphilis is often followed by mental disturbance, and that these changes are generally either primary dementia, or pass into secondary dementia by a maniacal or melancholic stage, or by an attack of delirium. It is likewise the fact that more than the half of these are attended by motory disturbances, which perfectly correspond with the same symptoms which take place in progressive paralysis of the insane.

In general, the mental disturbance and series of symptoms produced by cerebral syphilis, that is, dementia, with progressive paralysis following epileptiform and apoplectiform attacks, are similar to those which are included under the name of progressive paralysis. This similarity is, however, only apparent, and rests upon an earlier erroneous definition of dementia paralytica. Progressive paralysis is, therefore, no simple pathological process, but only a picture drawn from a description of the most different pathological conditions, which are followed by dementia and paralysis, and under which part of the syphilitic mental disturbance is included.

An almost equal number of syphilitic mental diseases are attended by convulsions and paralysis on one side, but during the progressive paralysis of the insane these disappear. In syphilitic mental disorders the symptom of monomania of grandeur is seldom observed. On the other hand, the want of this symptom in progressive paralysis is an exception, when cases of chronic hydrocephalus, of chronic alcoholism, lead paralysis and psychical disease, apoplectic and senile dementia, &c., are separated, as is proper, from it. Further, partial paralyses, such as of individual nerves, are pretty frequently found in syphilitic mental disease, while these conditions are not seen in paralytic monomania of grandeur.

Lastly, Dr. Wille, in cases of mental disease, in which syphilis could be certainly regarded as the etiological cause, and in which monomania of grandeur also showed itself, generally found no specific cerebral change, and in the other parts of the body no secondary specific alterations, so that, in spite of a previous infection, the syphilitic nature of the aftercoming disease could by no means be proved. It, therefore, results from the symptomatological contrast and comparison of progressive paralysis with syphilitic mental disorder, that the two maladies are due to different processes.

Another way of investigation has been proposed by Westphal, that



is, the pathologico-anatomical ; but here, first of all, the question is to be answered, whether constitutional lues can produce those alterations of the brain and its membranes, which are commonly found in paralytic dementia ?

The commonest changes in this last disease are a high degree of œdema or cloudiness and thickening of the upper surface of the brain, greyish-red foci of softening, a discoloration and superficial induration of the cortical layers, very often great atrophy of the brain, and especially of its anterior convolutions ; hence a greater firmness of the cerebral substance, widening of and serous effusions into the ventricles. Not unfrequently diffuse pachymeningitis and effusions of blood between the membranes and degeneration of the arteries are met with. If one compares with these alterations in progressive paralysis of the insane the results of post-mortem sections of syphilitic mental diseases, such as caries of the skull with its sequelæ, gummata of the cerebral membranes and of the brain, inflammatory softening in connection with calcination and thrombosis of the cerebral arteries, and meningitis, the last of these changes is almost the only one common to both pathological conditions. But even the meningitis referred to is sufficiently distinguished from that of the paralytic, since the growth of the brain and the pia mater seldom occurs in syphilis, while in paralytic monomania of grandeur it regularly takes place. On the other hand, the growth between the skull, membranes, and brain is often seen in the syphilitic, but not in the paralytic. When syphilitic meningitis is limited to the arachnoid, the meningeal exudation is marked by its small-celled character, while it is of a more fibrous nature—at least, in the older cloudy changes of paralysis.

Lastly, syphilitic meningitis is often as Griesinger has described it.

Simple meningitis is also found in the syphilitic, but it is in no way distinguished from that occurring in other diseases. The position of the meningeal exudations often gives hints as to the nature of the disease, for in the syphilitic it is found most frequently and most markedly at the base around the cerebral nerves, and generally in places in which it is much more rarely seen.

The anatomico-pathological comparison has thus brought out a distinction between the two diseases, and we are quite justified in looking upon the identity as an unscientific assumption until further proofs have been brought to establish it. But as experience has shown us some cases in which observation during life detected the contemporaneous existence of paralytic dementia, with undoubted symptoms of constitutional lues, and the post-mortem section, besides different specific alterations in the brain, showed only changes of meningo-encephalitis, it is more than probable that syphilitic cerebral disease may act in this way. But if the observations are based only on the examination, if the disease is unattended by symptoms of constitutional syphilis, if at last the section shows only the alterations of simple

paralytic dementia, without any specific changes of other organs, such cases are rightly to be regarded not only as doubtful, but even as improbably connected with syphilitic mental disease.

Lastly, it appears undoubted that both diseases may occur in the same individual as complications. Dr. Wille draws this conclusion from the history of some cases, in which the section of patients who had died of paralytic monomania of grandeur, and in whom the examination, besides syphilis, also brought out other essential causes which give rise to progressive paralysis, showed also, besides encephalic meningitis, specific alteration of the brain. The subject, however, is closed, and medical men in general are recommended to work it up as no less interesting than important to practice.

3.—The third group comprises a miscellaneous variety of topics.

*Bodily Weight in Mental Disease.*

“An Inaugural Dissertation,” by Baltiff Marburg, 1872.

As regards this subject, which has been made an object of investigation in several well-regulated asylums of this country, the author comes to results of which we direct attention only to those which have a practical value. They principally relate to the bodily weight in the first stages of insanity.

1.—If no increase of nutrition takes place in a patient who has been subjected to proper treatment his mental malady will not be recovered from.

2.—If, on the other hand, a permanent increase of bodily weight is observed, the prognosis is very favourable, especially if there is no evidence of a periodical disturbance. There remains only the apprehension that with the amelioration of the mind a weakening of intelligence may be developed.

3.—If in the first stage of the disease the bodily weight does not increase under proper treatment, but rather decreases, the prognosis need not be unfavourable during the first six weeks, and the more so the longer there is reason to expect a rise in nutrition.

4.—The more striking connection changes in mind have with the bodily condition the more certain and favourable is the prognosis, periodical disturbances excluded from consideration.

5.—A steady rise of the weight-curve, when a corresponding clearness and freshness of the mind is not exhibited, creates fears of a termination in dementia.

A case of particular interest is given in connection with these weight curves. Six times within three years periods of excitement occurred, which always gave place to symptoms of melancholy. On the development of the former the bodily weight always began to rise, and reached its maximum when the exaltation was at its highest point. On the decrease of excitement the weight of the body began to fall, till it reached its minimum at the time of the most signal depression.

*Puerperal Insanity.*

A lecture by M. Leidesdorf, delivered at a medical meeting, May 15th, 1872.

The author has collected 20 cases from his own experience. Of these 6 belong to pregnancy, and 14 to the puerperal period. Of the 6 occurring in pregnancy 4 had already been mentally deranged before marriage. Pregnancy and the puerperal period heightened the mental disorder, and the patients passed into chronic, incurable insanity. In the course of a year one died in a condition of well-developed dementia. Post-mortem section showed atrophy of the brain, chronic hydrocephalus, pulmonary and intestinal tuberculosis. In two cases the mental disease came in the form of melancholia, in the fourth month of pregnancy; the one case underwent another excitement in the puerperal period, but terminated in recovery. The second case was a woman, who in each pregnancy (this was the third) fell into a condition of considerable depression, with hallucinations of a horrid character, and after delivery found herself recovered. The lecturer now passes to mental diseases occurring in pregnant women, and in the puerperal state. During the delivery, at the moment of the passage of the child's head, a transitory mania sometimes occurs which is of interest, especially in a forensic point of view.

Eclampsia, when the patient comes out of it, leaves a mental stupor, which in from two to six days generally disappears, and but rarely passes into permanent mental disorder. The diseases which occur in the puerperal state, of which the author has observed 14 cases, appear from 6 to 9 days, or from 3 to 6 weeks. Of these 5 were primiparæ; in 3 hereditary disease could be detected.

Eight of these were cured, 4 uncured, 1 died, and 1 remained in treatment. Recovery took place in 3 to 6 months. The 14 cases may be divided into three groups—

1. Where the pregnancy and puerperal period occurred in persons who had already suffered from mental disease.
2. Where the mental disorder occurred in pregnancy and underwent an exacerbation in the puerperal period.
3. Where the mental disease occurred first in the course of the puerperal period.

In part of those contained in the third group it could be shown that they stood in the narrowest causal connection with the puerperal state, and these diseases could be regarded as blood intoxications, arising in consequence of pyæmic and septicæmic processes.

In proof of this view Leidesdorf gives two cases ending in recovery.

These cases of puerperal mental diseases had their origin in a slow or rapid growth of anæmia. According to Leidesdorf's experience, especially in the first case, it ran a more unfavourable course as regards the mental disturbance than those proceeding from pyæmic or septicæmic blood-intoxication.

The prognosis is relatively favourable, for 8 out of 14, more than half, recovered.

*Investigations of the Embolic Processes.*

By Prof. Dr. J. Cohnheim. (Berlin, 1872.)

Cohnheim's newest work is devoted to that stage of those processes which take place in a region, or in the neighbourhood of a region, traversed by an obstructed vessel and its ramifications; experiments, and observations in animals, pathological facts, anatomical and physiological arguments are presented to bring about a solution of this question.

The whole book is divided into four sections.

I.—Disturbances of the circulation caused by Emboli.

II.—Upon the Independence of the Integrity of the Vascular Wall from the Circulation.

III.—Sequelæ of the Pathology of Congestion.

IV.—Embolic Abscess.

The investigations which serve for an answer of the questions placed at the head of the first section were made on the tongue of a frog. In the animal experimented on an emulsion of dark-coloured wax globules was injected into the lingual artery, and the processes caused by this procedure were minutely studied. We are sorry we are unable to give details of the interesting cases which are described by Cohnheim. The result of these, however, compelled him to declare that the consequences of embolism are independent of the anatomical relation of the artery to the neighbouring vessels; obstruction of an artery gives rise to different consequences, as it is or not a terminal vessel.

At that point where the artery gives off no anastomoses with other vessels, Cohnheim calls it a terminal artery.

Where a vessel which is not terminal is obstructed by an embolus, an arterial anastomosis carries the passage of the blood into the capillary district traversed by the vessel obstructed, and, some considerable local changes excepted, the embolism is without result.

As regards the embolism of a terminal artery, the conditions are somewhat more complicated. The blood, which at the time of obstruction was found in front of the point of embolism, is withdrawn from the influences of the propelling forces, and stagnates in the terminal expansion of the artery, and in the veins leading out of this capillary region as far as their point of junction with other veins, which carry the blood out of parts in which the supply is in no way limited, but even increased by collateral hyperæmia. After a short time the blood begins to stream out of these into the inactive veins to run backwards into the capillary vessels, and into the part of the obstructed vessel lying in front of the embolus. This passage of blood is sometimes effected by oscillary movements of the blood columns. After one to two days these changes are evident to the eye on the frog's tongue. The

part of the organ concerned in the process is seen as a dark red wedge confined by its pale surroundings. In the second section we are shown how such an interruption of the circulation entails severe results for the tissues, and directly for the vascular wall. The latter, when for some time it has contained stagnating instead of flowing blood, becomes disposed to let the solid elements pass through it. In the neighbourhood of an embolic terminal artery, this process soon comes to necrosis, and to a large discharge of blood-cells from the vessels, and consequently to hæmorrhagic congestion.

The author then asks why the occurrence of such congestions is confined to definite organs (the lungs, the kidneys, the spleen), though other organs also become embolised.

The answer is this. In all other organs no proper terminal arteries occur, and all embolisms are rendered harmless by anastomosis and the collateral circulation. In the lungs arteries of any large calibre do not anastomose with each other, nor do the smallest before their passage into capillaries. Consequently proper terminal arteries do not exist in the lungs, and the diameter of the anastomosing vessels is so small that a great many of them must always concur to bring about the reestablishment of an arterial collateral circulation. When an arterial branch in the arteries of the lungs is obstructed, this condition is rendered impossible by the anastomoses of the smallest arteries from all quarters, but when embolism affects an arterial branch near to the surface of the lung in consequence of the deficiency of so many anastomoses, the collateral circulation is insufficiently supplied by the other remaining branches, and a backward movement as to the veins takes place, and is followed by congestion. In the spleen and kidneys the conditions are simpler. In these organs the arteries are entirely terminal vessels. Their obstruction is always followed by congestion. From the character of the vascular distribution in the brain a more frequent occurrence of hæmorrhagic congestion might be expected, for in the great anastomosis of the circle of Willis, and in that of some lesser arteries, every vessel appears to have a pretty well isolated district of distribution. But here other circumstances come in (such as the influence of gravity upon the backward movement into the veins, &c., &c.) which help to bring the theories of the author into harmony with the facts.

In the last chapter we are shown that embolic abscesses always proceed from such emboli, which are not located in the terminal artery, and which are the bearers of a substance—a putrid organic matter—exciting inflammation.

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2. *English Retrospect.*

*Cases of Disease of the Nervous System with Remarks.* By SAMUEL WILKS, M.D., F.R.S., From the "Guy's Hospital Reports for 1872."

*A case of aphasia, with remarks on the faculty of language and the duality of the brain. A case of hysteria, with remarks on diagnosis and treatment, contraction, and spasmodic affection of the limbs. Intermittent tetany—chronic, spasmodic affection. Contraction of the limbs and sclerosis of the spinal cord. Tremor and paralysis agitans. Local paralytic affections. Ataxia. Importance of discovering the origin of nervous diseases. Syphilitic epilepsy.*

It will be seen, from the above list of subjects treated of by Dr. Wilks, that he has had an opportunity of referring to some of the most interesting and obscure affections of the nervous system. Some of the cases and some of the subjects are very slightly glanced at, whilst others are gone into very fully, but in either case the author's clearness of ideas, precision of language, and perfect appreciation of the extent to which any general inference is warrantable from particular symptoms, give to all he says a special value. The physician to a large general hospital sees great numbers of cases of disease of the nervous system, but it has always struck us that the mental symptoms present are too often most cursorily enquired into, and but little heed paid to them. We do not mean by mental symptoms the delusion or the excitement of insanity. We believe that quite apart from such marked abnormalities of the functions of the grey matter of the convolutions, there exist, in a very large number of cases of ordinary nervous disease, quite recognisable departures from the healthy mental state. But they require to be carefully looked for and enquired into, not only from the patients themselves, but from those who have had the best of opportunities of seeing them beforehand. Such enquiries need to be conducted with much subtilty, tact, and discrimination, and involve some considerable trouble, ten times more than the usual enquiries as to the seats of pain or numbness; hence, no doubt, they are seldom made. The subtle mental (and moral) disturbances that accompany neuralgia, tetanus, paraplegia, deaf-mutism, diabetes, &c., have yet to be described, and would no doubt amply prove the unity and interdependence of the whole of the nervous system. The importance of such contributions as those of Dr. Wilks largely depends on the knowledge and grasp which the author has of the whole subject.

We do not remember to have seen the subject of aphasia and the faculty of language clearly treated within so small a compass as they are here. The case was in no way an extraordinary one, but it served to illustrate the subject.

Elizabeth H—, æt. 24, a domestic servant, admitted July 4th, 1871. A fortnight previously she went to bed perfectly well, but not rising at the usual hour, her room was opened, and she was found, as when admitted, paralysed and speechless.

There was no previous history of any illness whatever. She was a well-grown woman, very pale, and with a vacant expression of countenance. The right arm and leg were completely paralysed, the mouth slightly drawn up towards the left side when she used any muscular effort. She could move her mouth well in eating, and could use her larynx; there appeared some little difficulty in protruding the tongue. There was also considerable loss of sensation in the arm and leg. Also some loss of power over sphincters of rectum and bladder. On examination of the heart no bruit could be detected. On speaking to her she appeared to understand all that was said, but could not answer a word. Her mouth moved, and she uttered a senseless jabber. She was put on good diet, tonic medicines, and, after a time, Faradization to the right side.

In about a fortnight's time her general health was improved, although the paralytic symptoms remained as before, and then I was better enabled to test her knowledge of language. She appeared to understand written and spoken language perfectly; she read books and the newspaper, she received letters from her friends, and on one occasion a telegram; all of which the sister of the ward said she perfectly understood by her actions and gestures, since she prompted what answers to give. When any object was held before her, and the name demanded, she merely moved her mouth, or uttered an unmeaning sound, but immediately assented by a nod when the correct appellation was given, just as she would shake her head when any wrong name was purposely uttered. At the end of another month the power of the leg slightly returned, so as to enable her to sit up, but the arm remained paralysed, and I waited with expectation to see if, with a slight recovery of the limbs, the speech would also return. There did not, however, appear to be the slightest indication of improvement; at the same time, she seemed as rational as any other person in the ward. It was then attempted to teach her afresh, and the method, up to the present time, has been eminently successful. A box of letters of the alphabet, with pictures upon them, was brought her, and she was taught in the same manner as a child, or as a person learning a foreign language. On repeating to her several times the name of one of the objects on the cards, she would at length articulate the name herself. On the following day she would say more of them correctly, and forget others, or use the wrong name, just as a child might do. On one of the cards was the picture of an umbrella, and she evidently knew it was a long and tiresome word, and immediately exclaimed "butterfly," but in a moment shook her head to express her error. A butterfly was on one of the cards, and she had been taught the name. She was also taught to say other words, as "good morning," "Guy's Hospital," and her own name; all these she would suddenly bring out when I visited her on my rounds, being evidently delighted with her improvement. Although it was true that she could move the muscles of the face, yet every word appeared to be formed with an effort, as if she had never before put her mouth into shape, and much as a stammering person does when trying to give birth to a word. That an actual difficulty existed was seen in the dissimilarity to the correct sound on the first attempt to speak, although afterwards the word would be properly formed; in fact, if one has observed a child attempting to utter a hard word, and mixing the syllables together or skipping a letter or sound entirely, the exact condition of this woman may be understood. On being told to say "seventeen," the number of her bed she said "eventeen," but then being requested to make a hissing noise to precede this, she immediately did so, and so produced the correct sound. A very similar performance may be seen going on at any school where the master is endeavouring to teach French; strange grimaces and many feeble attempts are witnessed before the children can say, for example, "Donnez-moi du pain, monsieur." In this way the woman is gradually learning to talk, and, as far as can be ascertained, she has not used a single word which has not been taught her quite recently; she does not appear to have used any expression which might have cropped up from recollection or from any return of memory.

As regards agraphia, the ability to write was rather a difficult faculty to test, seeing that few persons can write at all legibly with the left hand, but I apprehend it is the same faculty which is put on trial when a number of letters of the alphabet are placed before the patient, and she is requested to arrange them into words. I doubt whether this woman would have voluntarily put letters together to form words, for she never attempted to do so; but when told to spell a common word, like "horse" or "cow," she immediately endeavoured to accomplish it, but generally spelt it wrong; there was a tendency for the letters to come right, but they were seldom placed together quite correctly. When wrongly placed she shook her

head, to express the error, and if the word was made right would accord by a nod.

I should have said, that in learning to speak she was not guided by the movements of the mouth or larynx, as are the deaf and dumb, but by the sounds through the ear; this was known by speaking the word we wished her to utter behind her back, when she was found to copy it just as readily as when she saw the face.

The patient was slowly improving, when she was removed to the north of England by her friends.

Dr. Wilks regards the case as one of true and typical aphasia, the power of expression and writing being lost, but not the faculty of language, and thinks that it is this kind of case which creates so much interest as regards the question of localizing speech in a particular part of the brain, and indeed as to the nature of language generally, together with the mental state of that person who has lost the power of communicating his ideas by signs.

Where the memory of words is entirely gone, as in the amnesic patient, the case is comparatively simple to understand, for whether we believe that speech is situated in one spot, or is intimately associated with the working of the whole hemispheres and the entire mental faculties, it is not difficult to comprehend how a violent injury might deprive a person of speech, so that he should not be able to speak or write, or even know the meaning of words. What his mental condition is under these circumstances may of course be very difficult to discover. But the case is altogether different and far more perplexing when he has an appreciation of language, but yet is unable to communicate his ideas by writing or speaking. Here we have an intricate problem, and one which some of the best minds in the profession have not yet been able satisfactorily to solve.

The difficulties of explanation are in some measure removed and the way made more clear when we attempt to analyse the faculty of language. For its production three, if not four, different processes are employed. First, the mind is impressed with ideas through the eye by means of written signs, that is, impressions formed on the retina pass through their own perceptive centres (to adopt Dr. Bastian's expressions) to the central hemispheres, where they are further developed or compounded with other perceptions. Secondly, impressions made on the ear by sounds are carried through the auditory perceptive centres, also to the hemispheres. Now, these signs conveyed by the eye and ear having nothing in common, there can be no connection between the letters which spell, for example, the word "field," written on paper, and the sound which we attach to this word; the association in our mind is one of our own constructing, and is a perfectly arbitrary one. We are compelled to this association from our earliest infancy after the following manner:—When a child is shown a certain word in his book, a certain sound is made to represent it, and thus the visual impression and the auditory impression become intimately blended in his mind. In all probability a picture of the object (say, a dog) is shown to the child, to which these visual and auditory signs are always to be attached; but this is not all, for the sound made by the master is to be imitated by the child until the latter can use its organs of speech in a particular way when the said object is presented to him. The whole complex faculty of language is thus taught through signs by the ear, by the eye, and by the organs of speech, together with a representation of the object itself. One would naturally ask what idea of language would exist if it had been taught by one or more of these processes, and I think we may get some answer to the question. Let any one who has acquired a knowledge of a language by means of a dictionary ask himself if he need have the slightest comprehension of it when spoken; not having acquired it through the ear it would be, under these circumstances, quite without meaning to him. Thus the common remark made by many persons, that they can read French or German but cannot speak those languages, is, of course, true, for they have never tried. The processes of learning through the eye and through the ear are, in fact, totally distinct, although by education we may have intimately blended them together. Then, again, when we speak, we are employing a third faculty; we are not then gaining ideas through the ear or eye, but we are communicating ideas to another person



through a totally different channel. If a child were taught the name of an object by a visual or auditory sign, and that child did not learn to make the customary sound which belongs to it, he would understand language by reading or hearing, but he could not speak it. He might gain ideas through the eye or through the ear, but he must learn to transmit them through the brain to the vocal organs in order to communicate them. In illustration, is the following. A little boy, the son of French parents, born in England and going to the town school, speaks English like other boys, but at home the conversation is carried on by his parents in French. They speak to the boy in French, and he readily obeys all that is demanded of him, so that there is every reason to believe that he understands the language perfectly; but up to the present time he has never been known to utter a single syllable of it. He cannot yet read fluently, and, therefore, what information he might obtain from books I cannot say. Here is a case of partial education which much resembles that of our aphasic patient. We might illustrate this, although somewhat imperfectly, by the following:—An engine driver has learned the meaning of certain signals, so that he could explain their object to another person, but it does not follow that he could take the signalman's place. He might know that for a certain purpose a certain sign was to be shown, and the instrument for making the signals might be perfect in its working; but he would be quite helpless, because he had not been taught how to use it. He would be much in the position of the French child just mentioned, who understood the language, but could not use it. If he had once learned the use of the signal instrument, and then forgotten it, he would rather resemble our aphasic patient. The man who sits in a tunnel, and works his instruments without being able to see the effect on the distant signals, is like the deaf and dumb child who has learned to talk by imitating the movements of the mouth of another person but hears no sound.

That this compound of language made up of spoken, auditory, and visual signs, may be thoroughly broken up, we see to a limited extent in every-day life. For example, a considerable amount of attention is required, and expenditure of vis nervosa in continuous speaking; therefore, in an exhausted state of the nervous system, this faculty may be virtually paralysed. Let a person be prostrated from want of food or over exertion; he cannot talk, he forgets what he wants to say, he uses one word for another, but he does not forget the meaning of words which are spoken to him or which he may read. Even under ordinary circumstances, in perfect health, we lose the memory of words, and are for the time exactly like our aphasic patients; we cannot speak them nor write them, but we recognise them when written or spoken, or if a long list of names be given we immediately assent when the right one is arrived at.

He then discusses the question as to the connection between language and intelligence, concluding thus:

Most persons will state that they cannot accurately think out a subject without speaking or writing, showing that the ideas must have expression in form. What condition the mind of the truly "amnesic" patient is in, is very difficult to know; but if in ordinary life most persons' thoughts are not worth much unless put in consecutive form by means of spoken or written language, it would follow that the mind of man without language would be a blank. It, however, could scarcely be this, for with mental vision of objects before him, together with remembered sounds and odours, he would be as well off as the dog. Whether really any deeper intellectual processes can go on without language, is very difficult to ascertain.

This consideration of the nature of our present language, and that it is a mental production formed by several processes, enables us to separate these analytically, and to perceive how one of the parts may fail whilst others remain intact. If language is regarded as a simple faculty bound up with thought, it is difficult to understand how a knowledge of it can exist, and at the same time be forgotten; but if looked upon as a complex process, we can see how words can be intelligently perceived through the ear or eye, and yet cannot be spoken by the tongue; the organs of speech, notwithstanding, being all the while intact.

As there are direct channels from the senses to the cerebral centres, by which impressions become converted into ideas, the one leading inwards from the gateway of the ear, and another also inwards from the gateway of the eye, so it may be presumed that there is a third, which leads outwards from the brain, for the purposes of spoken thought: or, as there are an auditory perceptive centre and a visual

centre, by means of which sensations are carried to the hemispheres to be converted into ideas and the various mental processes performed, so between the intelligence and the vocal organs we may presumably suppose there is a centre intimately associated with the production of language. For the same reason, if a portion of brain can be injured and vision lost, but without the eye itself being affected or the intelligence dimmed, so we might suppose an injury to another part of the brain and language lost, whilst the vocal organs and the mind still remained entire. If the up line can be damaged or cut, so can the down line. That there should be a portion of the brain whose especial duty it is to rule over language seems less remarkable when we remember that the tendency of physiological opinion at the present day is to map out the cerebro-spinal centres for various and distinct purposes, and that the different complex movements of the body are prearranged and regulated by certain dominant points, either for respiration, speech, or motions of the limbs; and, moreover, that influences pass by special channels from the cerebral hemispheres to these points. It is clear, in the case of aphasia, that some powerfully presiding influence over the organs of speech has been lost, for not only is the remembrance of words gone, but the organs themselves, without being paralysed, appear to have quite lost their habit of accommodating themselves for talking.

Considerations of this kind on the analysis of speech and the compound office of the brain tend to elucidate some of the difficulties presented by such a case as that I have reported. But there are still further points of interest in this case not yet alluded to, and one is the recognition of language after it had been lost. I have no doubt the usual tacit explanation in such a case has been—that language has returned with recovery of the injured brain; but before this can be satisfactorily determined, some more rigid observations are required to show if the facts answer to the explanation. In bringing to my recollection several cases of right hemiplegia with aphasia, where there was no recovery of the limb, the speech also appeared to be irretrievably gone, and I know more than one case where patients, under these circumstances, are absolutely dumb. I have just now under my care a sailor, who was the subject of this affection seventeen years ago; he partially recovered, so as to be able to resume his employment, but his speech even now is most imperfect. In the case under discussion the woman recovered in part the use of her leg, but not at all that of her arm, and at the same time there was not the slightest appearance of the return of speech. The few words she was acquainted with at the time of her leaving the hospital she had altogether newly acquired, and there seemed no reason why she should not have learned as much French, or any other foreign language, in the same space of time. It becomes then a question whether this fact be not an argument in favour of the theory that speech is located on one side of the brain, and that when language is relearned, the other side has been educated for the purpose; in fact that the same process is going on with language as with the left hand when it is learning to write, and do what the other one had been accustomed to. If after a violent concussion all idea of language was knocked out of the brain, no argument could be founded upon the recovery of it; but when the mind is entire, language understood, and yet the power of speech gone because one part of the brain is damaged, it seems to follow that, if language again return it must come by re-education, and what more likely than that the part corresponding to the damaged one should be the seat of the training—that this should take up the lost function of its fellow-convolution? If speech was originally learned in a special way, it must be regained by the same method.

I am aware how easy it is to take up an idea and so surround it with inventive argument that it stands out before us as a grand truth, whereas all the while it is illusory and a false creation; but believing as I do that the aphasic state is intimately associated with destruction of convolution on the under surface of the left anterior lobe of the brain, as stated by Bonillaud, Broca, and Jackson, I have come to consider that the reacquisition of language by an aphasic patient is an additional fact in confirmation of it.

He argues that as in playing a musical instrument it is the nerve centres and not the muscles that are educated, so there is no absurdity in regarding the faculty of speech as dependent on a brain centre of limited extent which has been educated for that purpose.

Since the two hands cannot be interchanged in playing, it shows that each side

of the brain must have been specially educated for their particular movements. They have thus become physiologically different. At birth the two sides were alike, or only so far differed as hereditary transmission had made them to do, but they have soon become functionally unlike; they may be employed in the same class of operations, but in matter of detail each is performing its own work. Let us suppose the case of a person who communicated his thoughts by certain movements of his right hand instead of by his larynx, and these movements were called speech, it would follow that if he was struck with hemiplegia speech would be lost from disease of one side of the brain.

It is thought by some most unlikely, and I agree with them, that language should reside in one spot of the brain, seeing that it is associated with every faculty of the mind; it can reside in no special place, seeing that it is everywhere; but in most cases of aphasia, as in one reported, the language is not lost, but only the faculty of speech.

Take again the case of music; this is intimately associated with the higher operations of the intellect, so that a genius will clothe some of his subtlest thoughts in the harmonies of his own creation; these he expresses in part through the left side of his brain when he produces them with his bow in the right hand: let a clot of blood form in the brain and the power of performance is gone. If every faculty of his mind, if his whole soul be imbued and penetrated with music, we know that the concord of sweet sounds came through the small channel of the ear, and therefore it is not remarkable that it should again flow through a channel of equally small dimensions. So ordinary language, gained through impressions which have passed by the narrow inlets of eye and ear, becomes intimately associated with all the operations of the mind, and yet must again be concentrated towards one spot in order to make its exit in the shape of winged words.

In favour of the theory that the faculty of speech ordinarily resides in the left hemisphere, he argues:—

Seeing, again, that nearly all the voluntary movements of the body do take place through the action of one side or the other of the brain, it is not unlikely that the side which is most active is that which should rule over the organs of speech. The fact of several cases of left-handed men now having been reported who, when paralysed, did not become aphasic, tends to corroborate this view.

These considerations do not demonstrate anything, nor do they prove that the organ of speech is located on one side of the brain, but they show that the notion is by no means extravagant, and, indeed, far from unlikely. We must depend, of course, upon facts, but the theoretical objections against the doctrine, which some have thought insuperable, appear to be of no great moment when fairly weighed. At all events, we are enabled by discussion to see more clearly where the difficulties lie. Amongst other advantages, it leads towards the solution of the question as to the uses of the two sides of the brain. The older physiologists were much puzzled about this double organ, for although no difficulty was presented to them by the existence of two kidneys or two lungs working together for one object, they would rather have seen the brain constituting one single mass as the organ of consciousness or the "ego." Their only escape from their perplexity was the position of the pineal gland in the mesian line of the body, and here they could safely and logically find a habitation for the soul.

The next question is, how far the nerve centres for particular functions are independent.

One cannot but think that the independence of the limbs necessitates the independence of the centres which rule over them. The next question to ask is, what proof is there that the ganglia on each side are governed by their respective hemispheres, and not by the brain as a whole? There are many facts which tend to show that the former is probably the case. First of all, the fact that meningitis of one side of the brain will produce a hemiplegia, or a condition which is equivalent to it. I have already in former papers mentioned cases where an arm and leg of one side have become powerless during an attack of inflammation of the brain, and after death the surface of the opposite hemisphere has been covered with lymph; so that we must conclude that the power of volition had been affected on that side, with the consequent inability to move the limb.

There is also another instance which has the same bearing on the separate action of the hemispheres, an example of which will be found in the case of hysteria presently to be reported. The woman had hysterical hemiplegia; she did not will to move one side of the body, and yet she had a will to move the other side. It was not an impaired will, but a divided will, and thus the voluntary power failed on one side, whilst it remained powerful on the other.

The independence of the limbs on each side of the body seems to demand an independence of the ganglionic nerve-centres which rule over them, and these, again, their own distinct hemispheres to govern them. Thus, the duality of the brain is as much a necessity as the duality of the body, or rather the two are coextensive; the brain is one as far as the body is one, and double as far as the body is double. If the limbs could have been separately governed by the brain as a whole, it would probably have formed one mass instead of being double.

There will be less difficulty in embracing this view when it is remembered that the limb is an exponent of the character of the whole animal; that the movements which the hemisphere rules over are associated with its entire instincts and habits. The foot of the lion and its mechanism imply a certain condition of teeth or stomach, and the same applies to all other creatures in the world, so that the palæontologist can, from the small bone of a limb, build up the entire framework of the animal.

The word I have just made use of—*dexterous*—has become an epithet for special ability in manipulation, and is generally associated with much force of will and energy of character; it is a hand, therefore, met with in some of our best surgeons. I shall never forget the remarkable hands of two of the best surgeons of the day when I assisted them in an operation, the late Mr. Liston and Mr. Aston Key. They both had the largest and ugliest hands which it is possible to conceive, and, just in proportion as the reader can picture to himself their uncouth appearance, so may he be sure that they could be used in a manner which it was sometimes wonderful to behold.

The case of hysteria related by Dr. Wilks, with his remarks on it, have a very close bearing on problems which the alienist physician has to face every day. The symptoms which in Dr. Wilks' patient had to be overcome, consisted chiefly of muscular paralysis, which moral treatment, good hygienic conditions, and above all an education of the will to vigorous exercise were needed to cure. How many cases of insanity require just the very same means for a precisely analogous paralysis, or perversion of some mental nerve-centre! It is a means of treatment too little resorted to in lunatic asylums. In how many cases of melancholia with delusions could we not speedily effect a cure by training the patient to will that he shall get well?

Mary B—, æt. 30, a governess, admitted June 14th, 1871. Had good health until present illness, although subject to headaches. Two years and three months ago the little finger of the left hand became numbed and stiff, then gradually the whole hand became numb, and afterwards quite powerless. At the end of three months the whole arm became similarly affected. This continued for several months, when the left leg became weak in the same way, and the lid of the left eye unable to be raised. For some months she has been described as having paralysis of the left side, including the eye. She stated that a month ago she had a fit, in which she was insensible for two hours, and for three weeks after this she was unable to open her mouth, and lived, in consequence, on liquid food.

On admission she was obliged to be put in bed, being unable to move her left leg and left arm. The arm, when raised, dropped lifeless at her side. She had ptosis of the left eye, but when the lid was raised the pupils were found to be equal, and the eye movable in all directions. She was unable to open her mouth beyond half an inch. Tongue protruded straight. Sensation considerably diminished in the left arm. She was not wasted and did not look ill.

From a consideration of the history of the case, it was regarded as one of hysteria, that is, a case where there was no actual lesion in any part of the nervous tract standing in the way of a voluntary act, but that rather the voluntary power itself

was in fault ; it was in fact ideal rather than real paralysis. Under these circumstances, as the object was to rouse the dormant will, and not to treat the paralysis as a physical reality, it was considered that medicine alone would be useless or worse than useless, but that rather those means should be used which could act directly on the will—in a word, moral means. She was informed that an effort on her part was essentially necessary for the cure, for if she did not exert herself she would soon become irremediably paralysed, unless, indeed, it was her wish to be bedridden for the rest of her life, and have no prospect of health and happiness before her. Such an idea she at once repudiated. She was ordered camphor water three times a day, and was told that she would, no doubt, get well at the end of a few weeks, but this could only be accomplished by a visible improvement on each of my visits.

The result of this mode of treatment was that she soon recovered, on which Dr. Wilks remarks—

This case is interesting as exemplifying the remarkable effects of moral treatment, which I believe can be far more efficiently accomplished at a hospital than at a private house. When one has the opportunity of comparing the melancholy results observed in the home of the patient compared with those which are gained in public institutions, one cannot but think of some of the disadvantages of the rich.

The hospital has advantages which no private dwelling can afford. The patient is in a ward with other people, whom she sees have real diseases, some growing better and others worse ; she sees also the physician adopt a uniform plan of kindness to all, doing his best to cure and relieve, and she herself is put on a perfect equality with them ; she sees, too, the nurses performing their tasks in a uniform and business-like way, having very little time or ability to speak a sympathising word to any one, and having still less inclination to heed fanciful complaints, being ready rather to exhibit their indignation at the display of any imaginary troubles. There is, in fact, no one in the ward who is ready to play the part which is necessary to perpetuate an ideal malady ; everything is real around the patient, and thus the whole pervading influence of the place is sometimes in itself sufficient to cause her to forget her self-created troubles, and at once to participate or even assist in the good work which is going on around her. I know it has been said that the placing an hysterical patient with other invalids is injudicious, but I have not found this to be the case, and it is certainly to be preferred to keeping her in her solitary room at home.

It sometimes surprises me that medical men, seeing all this, declare their utter helplessness when standing by the bedside of an hysterical patient. They will confess that all means have been tried in vain, that there is no real disease to cure, that it is an imaginary or nervous disorder, and nothing can be done, when it is their own presence in the case which constitutes the very root and foundation of the malady. Let us take the case of a girl who goes to bed with an ideal paralysis of the legs, or some similar disorder. She sinks into a morbid state, and puts on a second nature ; she becomes the centre of a world of her own creating ; she is the interesting invalid ; she receives the sympathies of inquiring friends, the care of nurses, the consolation of the clergyman (for she is usually outwardly pious), and, above all, the daily visit of the medical practitioner, who prescribes appropriate physic. This is her perverted life ; this is "her little game." Now and then the physician is called in, who gives his opinion that a great deal of the malady is due to hysteria, orders some iron and quinine, and perhaps galvanism, and so the play goes on. The medical man declares that he has tried every means and failed. Does he not see the whole affair is a drama of the patient's own creation, and she the central figure of the piece ? She is to be ill, she is to have her doctor, and enjoy in her morbid way all the interesting surroundings of the invalid. Does he not see that to cure her he must break into the charmed circle, and to spoil the play he must get rid of some of the performers ? And does he not see that, even if he has not influence over others, he might withdraw himself ? Here is a young lady who says, "I will be ill, and have a doctor to attend me." How can she accomplish this if the latter declines to obey her behests ? or, if he accepts the post, how can he, in the name of common-sense, say he cannot break her of her fancy whilst he is a party to it ? If he sees clearly the truth of what I have been

saying, his duty is, as professional adviser to the family of the patient, to retire, and use his influence to prevent the calling in of another medical man. I have myself seen, in several instances, where such advice has been given, and the parents have said to their child, "We will have no more doctors," that recovery has at once ensued. In one of the worst cases of hysteria I ever saw, where a young lady had been bedridden for three years, and during this time must have swallowed hogsheads of physic, and had her body covered with leeches, blisters without number, besides being well rubbed with tartar emetic ointment, the medical attendant suddenly died, when the father declared that his daughter was ruining him, and that he would have no more doctors. From that time she began to recover, and may now be seen walking about quite well.

A young lady keeps her bed for two or three years for an affection of the hip, and is seen by all the leading men in London. One day the clergyman walks in, prays over her, and she gets up and walks. The case is reported in all the religious journals as a miracle, whereupon the doctors all join in declaring that the case was one of hysteria, and that there was nothing the matter with her. Then, I would ask, why was that girl subjected to local treatment and to the infliction of physic every day for years? Why did not the doctors do what the parson did?

How strongly all this applies to many cases of mental disease need not be adverted to. It might be well to take a leaf out of Dr. Wilks' book, too, in regard to the modes of talking of the treatment of many cases. Why pretend that mere sympathy and kindness is all that is needed in the treatment of a case, when we know that a vigorous will brought to bear on it, and infect it with energy, a good rousing "blowing up," a very distinct warning that giving way to evil tendencies would bring most unpleasant consequences, would do more to produce recovery than all the sympathy in the world.

The following are acute remarks in reference to the diagnosis of such cases of paralysis from lack of will power:—

In the present case there was no falling of the face, nor any evidence of paralysis of the seventh nerve, but there was a drooping of the eyelid. Now, if this had been due to actual paralysis of the levator, from implication of the third nerve, there would also have been dilation of the pupil and an inability to move the eyeball. The case, therefore, did not resemble an ordinary case of hemiplegia, but, on the contrary, the paralysis was exactly of that kind which would occur from a simple abeyance of the will. On a little consideration it will be seen that exactly those parts were paralysed which we should expect in a case of inefficient will, *viz.*, those which are directly under the influence of volition, whilst those parts remained unaffected over which the will has no control.

I think every one can get an idea of what might happen when his will is not sufficiently powerful to excite his muscles. After great fatigue or exhaustion from want of food he might feel his legs unable to carry him, or his arms would drop at his side, his eyelids would fall, and he could scarcely make effort to open his mouth and speak. A means of diagnosis between real and ideal paralysis may lie in the fact of muscular tension being gone in the one case, whilst it is present in the other. In facial paralysis there is a falling of the muscles on one side and a drawing up of the other. This proves to me, as it does to others, that an influence is always passing from the centres to the muscles, preserving them in a state of tension, and that if paralysis occurs this tension is destroyed. In hemiplegia, therefore, or spinal paraplegia, this tension would be absent, whilst in the hysterical form, or in any feigned form, it would be present. If we could better gauge its amount by galvanism or other means, we should have a valuable test for diagnosis.

This question of the continued flow of a *vis nervosa* is a very interesting one, and, until demonstrated, it is useful to speak of it in a hypothetical sense. It seems that, apart from volition, our nerve centres are perpetually preserving the body in a state of tension whilst consciousness lasts, but when this is gone the muscles immediately relax. At least, this is the rule, for exceptions to it are seen sometimes in epilepsy, where the patient does not fall when losing his consciousness, and, indeed, may continue to walk; also in catalepsy, where the brain appears acting on

the muscular frame whilst consciousness is in abeyance, and probably also the same occurs in somnambulism.

Another point of interest I have already alluded to in the remarks appended to the case of aphasia—that a want of will to move the muscles on one side of the body, whilst the will is good to move those of the other side, is a fact tending to strengthen the idea of a dual function for our double brain.

Two cases of intermittent tetany are recorded, one being treated by chloral, and the other by bromide of potassium, and both quickly recovering. One may be permitted to doubt how far there is any sort of real pathological analogy between such cases and true tetanus, and if there is not, then “tetany” is an objectionable and misleading misnomer, the use of which ought to be discontinued. Some observations on sclerosis of the spinal cord follow, which, as it is a disease much talked of now, we shall quote entire.

The researches of Charcot have shown that contraction of the limbs is very often associated with a condition which has hitherto been styled chronic inflammation of the spinal cord, but to which he now applies the more distinct title “sclerosis.” The advantages of a name of this kind are, no doubt, great, but at the same time it is apt to be seized upon by careless observers, and appropriated to a number of obscure disorders which seem to become clear by this christening process. Charcot means by the term sclerosis that condition where a new connective tissue is formed in the cerebro-spinal centres, destroying the nerve-fibrils, which, together with the new material, become converted into one dense mass. This adventitious matter may be met in various parts of the cerebro-spinal system. I myself have generally observed it to be of a whitish colour when occurring in the substance of the brain, and of a whitish or grey colour when met with in patches on the fourth ventricle or other free surfaces. At other times, instead of this new product being scattered, it affects one portion of the brain or cord alone, such portion generally being a strictly anatomical and physiological segment, as, for example, the antero-lateral columns of the spinal cord, or the posterior columns only. In the latter case the sclerosis is also called gray degeneration of the cord, and is the condition met with in locomotor ataxy. If the antero-lateral columns are affected, the disease is spoken of simply as paraplegia. At the onset of the disease it has been stated by Charcot that “tremor,” together with nystagmus or oscillation of the eyeballs, is a very common symptom, and in consequence the complaint has been confounded with paralysis agitans. As the disease proceeds, the trembling ceases, and the limbs become rigid and closely drawn towards the body.

Three cases of contraction of the limbs, with paralysis, follow, but their connection with a sclerosis of the cord is entirely hypothetical. A very interesting case of induration of the brain is quoted from “Bright’s Medical Reports,” where the symptoms during life were convulsive fits, imbecility, and permanent stiffness of the muscles. After death the grey substance of the brain was found to be pulpy, and the white substance “hard, constricted and shrunk, so that it seemed to enter the cortical substance like white bands.” Two cases of tremor and paralysis agitans follow, the pathology of which Dr. Wilks inclines to think depends on “an enfeebled state of the nerve centres, and a tendency to paralysis. It is not unreasonable to suppose that it may occur in connection with degeneration of the spinal cord. It is on this theory that choreæ especially, when affecting one side, is thought to be due to embolism of the capillaries of the central ganglia of the brain.” The last is a theory which should be quite capable, in some cases, of pathological proof, but we are not

aware of embolism of the arteries ever having been really found in a single case of chorea, or choreic symptoms to have been present in a single case of embolism of the arteries. There are some interesting but desultory observations on "Local Paralytic Affections," with cases, one of which was a case of paralysis of one arm, proceeding to general paralysis, which is undoubtedly a rare mode of commencement of that disease, but the history of the case is not at all fully traced.

The following observations on the subject of "Ataxia" are important :—

One great difficulty in determining the cause of various forms of derangement of the nervous system arises from the fact, that nearly all those which are due to organic change may be exactly simulated by others dependent merely on a temporary disturbance of the function of the spinal cord; and herein lies one of the most remarkable and interesting circumstances in connection with nervous affections—that distinct anatomical regions, possessing their own specific functions, are selected for organic changes. It may also be remarked that a very large class of nervous diseases can be purposely simulated or imitated, and thus another difficulty in the due estimation of symptoms.

There was a period when all morbid processes were thought to be due to excessive vital forces and to the determination of blood to various parts of the body; but now we have changed all that, and believe that, from some unexplained reason, one region may become more bloodless than another. There can be no doubt, I think, that changes may occur in the nerve elements quite irrespective of blood supply, and we can imagine an exhausted state of brain or spinal cord, independent of alterations in the flow of blood. That such changes are of the most subtle kind is, no doubt, true, for they may be sufficient to kill the patient and yet be not evident to the senses. A gentleman, just dead, but quite well a year ago, had general paralysis of mind and body, and I am informed that the brain and spinal cord appeared quite healthy. I feel no doubt, notwithstanding, that every ganglionic cell in his brain and cord was altered or decayed. But recently, also, I have seen a young gentleman recover from some of the worst symptoms of locomotor ataxy. It is, therefore, for more light that we are crying.

It is a remarkable circumstance how seldom this disease is met with in women. I only remember to have seen two well-marked cases of it. One of these had occasionally some mental disturbance, which suggested intoxication, an allegation constantly made in reference to ataxic patients, on account of their awkward gait.

I believe it worthy of remark, that patients suffering from ataxia, as well as from some other chronic nerve disorders, like progressive muscular atrophy, are liable to febrile attacks, which must have some connection with their complaints. Some of these patients repeatedly have attacks, accompanied by fever, nervous excitement, furred tongue, &c.

I am under the impression that if a case be curable the continuous current is one of the best, if not the very best, means of treatment we have at our command in various forms of paraplegia; and in those cases where no good is effected there is every reason to believe that the disease is organic or a structural one.

There is a case of general paralysis with ataxia related, with apparently few mental symptoms. The occurrence of the chief bodily symptoms of general paralysis in the course of other diseases of the nervous system, or combined with other distinct nervous diseases, and with almost no mental symptoms, is an extremely interesting point in nervous pathology; but we should be disposed to question if these are cases of true general paralysis at all. There are many kinds of bastard general paralysis very like the true disease, but in reality of a different pathological species. But this subject is an obscure one, and needs "more light."



## PART IV.—NOTES AND NEWS.

*Quarterly Meeting of the Medico-Psychological Association, held in Edinburgh, November 21st, 1872.*

A Quarterly Meeting of the Medico-Psychological Association was held in the Royal College of Physicians, Edinburgh, by the kind permission of the President and Council, on Thursday, 27th November. Present—Drs. Skaye, Lowe, J. Batty Tuke, James Howden, Ireland, Caddell, Fred. Skae, Grierson, Sanderson, John A. Campbell, McBain, R.N., Campbell, R.N., Brodie, Rorie, Thomas Howden, and Bateson. In the absence of Sir James Coxe, President of the Association, who had written to express his regret at not being able to attend, owing to an engagement in the North, Dr. Skae took the chair.

Dr. Howden (Montrose), exhibited the brain and calvarium of a man who had suffered from an abscess of the brain which discharged itself externally, by a perforation through the skull and integuments. The patient was admitted into the Montrose Asylum on the 5th Oct., 1871, in a state of extreme stupidity. His memory was gone. He could not tell his own age, nor where he came from. It was said that he had received an injury of the head, after which he had an epileptic seizure, and became insane. There is reason to suppose that he had at one time had syphilis. A few days after admission his memory returned, and he talked rationally on any subject, except that he expressed suspicions about his food being poisoned.

By the 6th November he appeared to be quite sane. A fluctuating tumour had now appeared, about an inch and a half above the inner angle of the left eye. On the 25th November the tumour was opened when a quantity of greenish-yellow pus escaped. Up to the time of his death pus continued to be discharged more or less constantly from this opening, sometimes in large quantities. On the 2nd Dec., another abscess had formed on the forehead. He was quite sensible, and answered questions slowly but correctly. On the 26th Dec., he was seized with severe epileptic fits. The discharge of pus was arrested. He was confined to bed till 6th January. The fits had now ceased, and the discharge reappeared. He died comatose, after a fit on the 13th January.

On *post-mortem* examination, two openings in the skin of the forehead were noted. On reflecting back the scalp a round perforation, the size of a small pea, was found in the calvarium, immediately beneath the external openings. A third perforation was observed in connection with an external opening. In all three a probe passed quite through the skull, and in two rested on a thin white fibrous-like membrane between the skull and the dura mater. In the third opening—an inch

and a half above the inner angle of the left eye—the probe passed without meeting any obstruction, through calvarium and dura mater, into a cavity the size of a walnut, in the anterior lobe of the left cerebral hemisphere. The dura mater was, with the other membranes, firmly adherent to the grey substance of the convolutions of the anterior lobe; and at the point where the fistulous opening was found, the grey matter in the neighbourhood was extremely thin. The cavity mentioned was filled with pus, which seemed to pass easily through the opening in the skull. It was lined by a wall of the consistence of soft cheese. Another similar cavity filled with pus was found in the middle lobe on the same side, and it communicated with the lateral ventricle, which was filled with pus. The two abscesses did not appear to communicate with each other.

Dr. Howden also exhibited a remarkable specimen of a symmetrical brain, and read notes of the case.

Dr. J. Batty Tuke showed a graduated slide for measuring the thickness of the grey matter of the brain. He said he preferred it to Dr. Major's most ingenious Tephrylometer, for the following reasons: 1st. That to use the latter the pia mater must be stripped off, and with it the outer layer of grey matter. 2nd. That, in the act of separating, the brain substance was apt to be stretched in Dr. Major's instrument, and so a source of fallacy might arise. 3rd. That it was extremely difficult to thrust the tubes into the brain-substance at a right angle, and obtain an equal section of the grey matter. The slide could be applied to the section made with a knife, and the thickness of grey matter could be easily read off with a lens to half a millimetre. He acknowledged that if there was any credit for this adaptation, it was due to Dr. Major, whose instrument had suggested it.

Dr. Tuke also exhibited two stomachs, which had undergone *post-mortem* digestion.

Dr. Thomas Howden (Haddington), showed the brain and stomach of a man aged 49, who had died of peritonitis of two days' duration. The man had been sent to Morningside Asylum in 1866, and a few months afterwards came under the care of Dr. Howden. Seven years before his confinement, he was said to have had an attack of an apoplectic nature; at any rate he was insensible for an hour or two, and for a month after was palsied in his left side. All the time he was in the asylum, he was an active, intelligent man, with no remains of the paralysis other than a slight peculiarity and stiffness in his walk. At long intervals, sometimes once a month, sometimes not for several months, he had epileptic fits. His delusions were principally as to his being poisoned by arsenic given him in his food. The nature of the delusions, Dr. Howden remarked, was of interest when we looked at the stomach. The cause of the peritonitis was the giving way of an ulcer on the anterior surface of the stomach. On its under surface there was a patch about the size of a two-shilling piece, where the coats of the stomach had been quite destroyed, and the pancreas had

become attached to the injured organ, and so prevented the escape of food into the abdominal cavity, and thus no doubt prolonged the life of the patient considerably. The condition of the brain, too, was of interest with reference to the paralytic seizure of 13 years ago. In the posterior lobe of the left hemisphere, there was a large cavity, which contained about 2 oz. of serum. This cavity communicated with the left lateral ventricle, and its external wall was formed by the membranes of the brain, which were much thickened.

The following papers were then read:—

“Notes on the Autopsy of an Idiot.” By Dr. J. Batty Tuke.

“The Religious Sentiment in Epileptics.” By Dr. James Howden.

“The Psychical and Sensory Deficiencies of Idiots.” By Dr. Ireland.

“The Shower-bath in Insanity.” By Dr. John A. Campbell.

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### *Obituary.*

#### REV. HERBERT HAINES.

In the obituary of the “*Journal of Mental Science*,” there should not be omitted a brief memorial of Herbert Haines, Chaplain, since 1854, of the Gloucester County Asylum. Mr. Haines was a distinguished authority on Monumental Brasses, about which he wrote manuals of repute. Even in his college days he possessed considerable knowledge of this branch of Archæology. It is said that he was much overworked—he was also Second Master of the Gloucester Coll. Sch.)—and his health had evidently been declining for some time.

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### *Appointments.*

CLAPHAM, W. C. S., L.R.C.P.L. &c., has been appointed Resident Clinical Assistant to the West Riding Asylum, Wakefield, *vice* T. O. Woods, M.B., appointed Assistant Medical Officer to the Warwick County Asylum.

COLDEN, E., M.R.C.S.E., has been appointed Apothecary to the Hanwell Lunatic Asylum.

DOUGLAS, W., M.D., has been appointed Assistant Medical Officer to the Female Department, Durham County Lunatic Asylum, Sedgfield, *vice* J. Lowe, M.D., appointed Assistant Medical Officer to the Sheffield Asylum.

FLETCHER, R. V., L.R.C.P. Ed., L.R.C.S. Ed., L.R.C.S.I., has been appointed Resident Medical Superintendent of the District Lunatic Asylum, Waterford, *vice* F. X. F. MacCabe, L.K.Q.C.P.I., M.R.C.S.E., appointed Governor and Resident Physician of the Central Criminal Lunatic Asylum, Dundrum.

HARRIS, W. J., M.R.C.S.E., has been appointed Medical Visitor of Houses licensed for the reception of Lunatics within the Western Division of the County of Sussex, *vice* S. W. D. Williams, M.D., L.R.C.P.L., resigned.

HETHERINGTON, C. E., M.B. Trin. Coll. Dub., L.R.C.S.I., has been appointed Assistant Medical Officer to the Downpatrick District Lunatic Asylum, *vice* R. V. Fletcher, L.R.C.P. Ed., appointed Resident Medical Superintendent of the Waterford District Lunatic Asylum.

JOYCE, T., M.D., has been appointed Medical Inspector of Private Lunatic Asylums in the County of Kent. *vice* E. Furley, M.D., M.R.C.S.E., resigned.

LOWE, J., M.B., C.M. Ed., Assistant Medical Officer to the Durham County Asylum, Sedgefield, Ferryhill, formerly Clinical Assistant at the West Riding Asylum, Wakefield, has been appointed Assistant Medical Officer to the South Yorkshire Asylum, Wadsley, near Sheffield.

MORRIS, D.E., M.R.C.S.E., has been appointed Assistant Medical Officer to the Hereford County and City Lunatic Asylum.

WOODS, O. T., M.B., L.R.C.S.I., late Clinical Clerk, West Riding Asylum, has been appointed an Assistant Medical Officer to the Warwickshire Lunatic Asylum, Hatton, *vice* J. B. Ward, M.D., appointed Resident Medical Superintendent of the Warneford Lunatic Asylum, Oxford.

WRIGHT, J. F., M.R.C.S.E., has been appointed Assistant Medical Officer to the Hanwell Lunatic Asylum.

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#### MEDICO-PSYCHOLOGICAL ASSOCIATION.

*A Quarterly Meeting of the Medico-Psychological Association, for scientific discussion, will be held at the Rooms of the Medical Society, George Street, Hanover Square, on the 22nd January, 1873. Dr. S. W. Duckworth Williams will exhibit some interesting pathological specimens relating to the state of the bones in general paresis; and a paper will be read by Dr. Blandford on "The Connection between the Causes and the Symptoms of Insanity." Notices of papers, communications, &c., to be sent to the Honorary Secretary, Dr. Christie, Royal India Asylum, Ealing, W.*

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REPORT OF ANNUAL MEETING—In the report of the Annual Meeting of the Association published in last number of the "Journal," Dr. Alexander Robertson, of Glasgow, is stated to have seconded a motion of Dr. Yellowlees. This is a mistake. Dr. A. Robertson was under the necessity of leaving early, and was not present during the discussion of the subject.

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THE  
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- Banks, Professor John T., A.B., M.D. Trin. Coll., Dub., F.K.Q.P.C., Ireland, Visiting Physician, Richmond Lunatic Asylum, 10, Merrion Square, East Dublin.

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- Fox, Charles H., M.D. St. And., M.R.C.S. Eng., Brislington House, Bristol.
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- Gilchrist, James, M.D. Edin., Resident Physician, Crichton Royal Institution, Dumfries.
- Gilland, Robert B., M.D. Glas., L.F.P.S. Glas., M.R.C.S. Eng., L.S.A., Medical Superintendent, Berks County Asylum, Moulsoford, Wallingford.
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- Greene, Richard, Esq., J.R.C.P. Edin., Assistant Medical Officer, County Asylum, Haywards Heath, Sussex.
- Grierson, S., Esq., M.R.C.S., Medical Superintendent, Roxburgh Asylum, Musselbro', Edinburgh.
- Griffin, L. F., L.R.C.S.I., Ext. L.R.C.P. Lond., Visiting Physician, Killarney District Hospital for the Insane, Ireland.
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- Harper, Henry Lewis, Esq., M.D. St. And., M.R.C.S. Eng., late Medical Superintendent, County Asylum, Chester; 19, Addison Road, Kensington.
- Harrison, Arthur R., M.D. St. And., M.R.C.S., Eng. late Medical Superintendent, The Asylum, Adelaide, South Australia; Superintendent, Isle of Man General Lunatic Asylum.
- Hatchell, George W., M.D. Glas., L.R.K. and Q.C.P. Ireland, Inspector and Commissioner of Control of Asylums, Ireland, 13, Hume Street, Dublin. (*Hon. Mem.*)
- Hatchell, Joseph H., Esq., L.K.Q.C.P., L.R.C.S. Ireland, Resident Physician, Maryborough Asylum, Ireland.
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- Howden, Thomas, M.D. Edin., Medical Superintendent, District Asylum, Haddington.
- Howden, James C., M.D. Edin., Medical Superintendent, Montrose Royal Lunatic Asylum, Sunnyside, Montrose.
- Howe, S. G., M.D., Boston, United States. (*Honorary Member.*)
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- Humphry, John, Esq., M.R.C.S. Eng., Medical Superintendent, County Asylum, Aylesbury, Bucks.
- Hunt, William James, M.D., L.R.C.P. Edin., M.R.C.S. Eng., late Assistant Medical Officer, County Asylum, Worcester; Medical Superintendent, Hoxton House, London.
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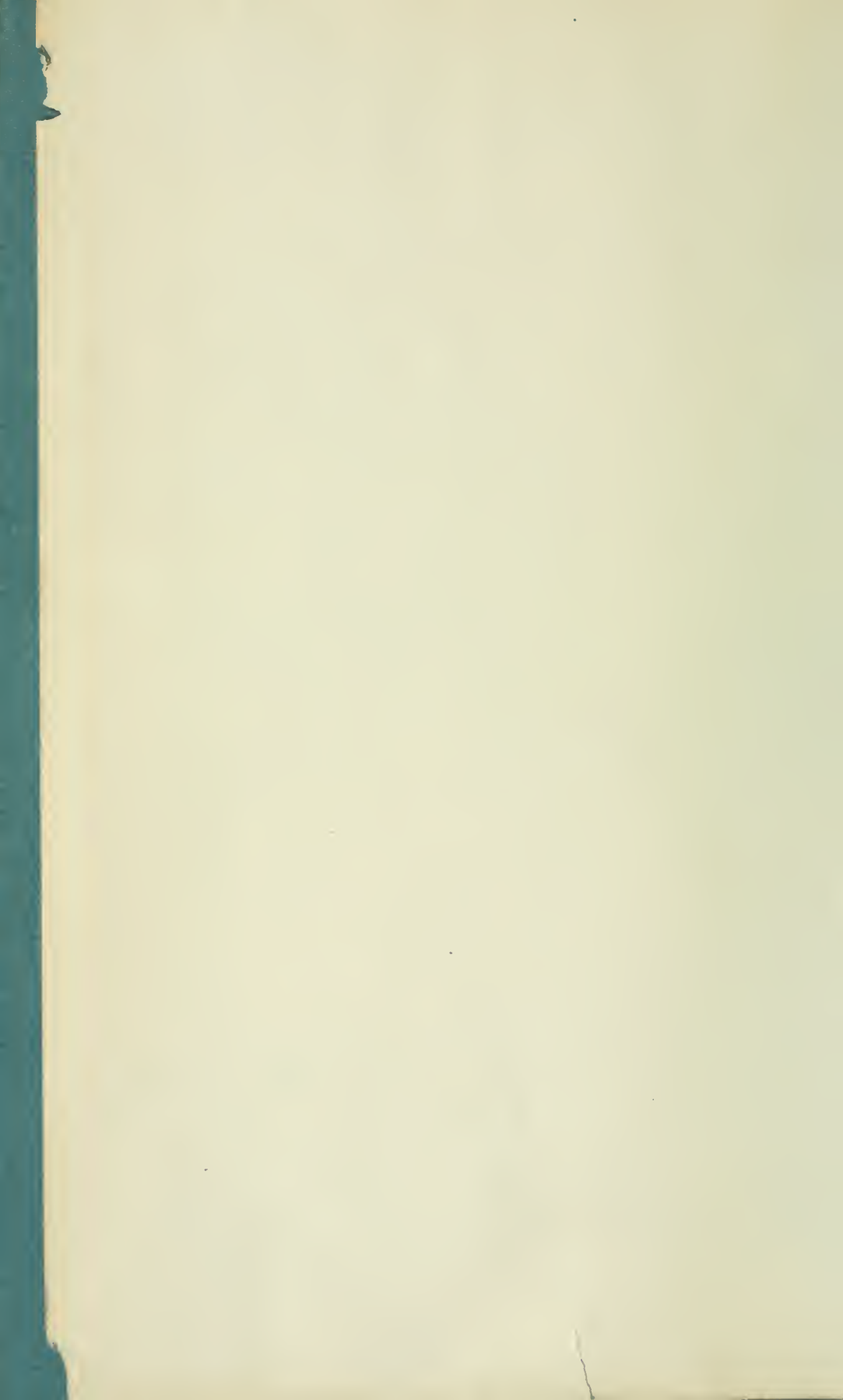












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