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OF

MENTAL SCIENCE

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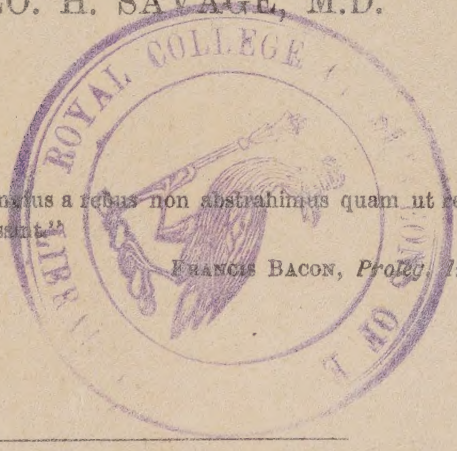

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et radii (ut in sensu fit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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"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 mechanician 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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PART 1.—ORIGINAL ARTICLES.

On Moral Insanity. By J. R. GASQUET, M.B.

The perusal of Dr. Savage's most interesting article in the July number of this Journal has suggested to me, as no doubt to all who read it, some important reflections. If I venture to submit my own thoughts on the subject, it is mainly in the hope that their consideration may lessen the "abstract metaphysical difficulty" (to which our President confessed in his address) "of conceiving moral as distinct from intellectual insanity." I may say at once, that I believe the difficulty chiefly arises from our disregarding the number and complexity of the mental processes involved in even the simplest moral acts. Let it be remembered that all recent physiological psychology has gone to show how numerous, almost beyond belief, are the factors of even the most rudimentary perception. The ground, indeed, seems almost to fail from under one's feet when one realizes how such an apparently elementary act has been shown to be the sum of numerous observations and differences, of which many are, perhaps, unsuspected, and all are unknown to our direct consciousness.

It may well be doubted whether our higher physical acts can be subjected to any such analysis; but it is reasonable to suppose that they also are very complex, and that much of the obscurity which hinders their study is due to our neglecting this important point. I propose, therefore, endeavouring to unravel this tangled subject, by examining what are the points of these mental processes termed moral, at which insanity may intervene to deprive them of their normal character.

In the first place, an act may be performed, without the intervention of the will, under the pressure of an *irresistible*

impulse, but this is so obviously outside the limits of moral insanity, that I only mention it here for the sake of completeness. The very first requisite of a voluntary act—spontaneity—is completely excluded by such an impulse, which, like some ruthless tyrant, forces a man to acts that he loathes and detests. But there is another kind of compulsion, higher, indeed, and more complex than mere impulse, which is yet external to the will it constrains. I mean the influence of overmastering *passion,* lust, anger, or the like. Singularly enough, this was the form of moral insanity most dwelt upon by older ethical writers, while it has dropped comparatively out of our notice at the present day. This is probably due, partly to our including many cases of the kind under impulsive insanity (from which, however, it needs no subtle analysis to distinguish them); partly to the extreme difficulty of ascertaining in any given case whether passion has acted with such violence and rapidity as to overbear the moral nature. The law, however, acts frequently on this principle in reducing the crime of murder to manslaughter; and we all practically adopt it in the degree of blame which we apportion to many acts of persons not considered insane. It is a matter well worth scientific investigation; but I do not dwell on it farther now, for it lies outside the province of moral insanity, strictly so called, and its general explanation, on physiological principles, is obvious.

The very essence of a voluntary act, as I understand it, consists in *deliberation* and *choice.* How can either of these factors be so controlled by mental disease as to constitute moral insanity?

To take first the case of *deliberation,* as that which is less doubtful. It is clear that deliberation becomes impossible if any of the facts, relevant to forming a judgment, are unknown; or if supposititious facts are introduced by delusion or hallucination. Even those who are unacquainted with insanity admit that such unsoundness of mind annuls responsibility; but they find it more difficult to conceive that the facts may seem to be perfectly known, and yet their moral value and relations may not be appreciated. For them it may be best illustrated by taking the parallel case, where no moral prejudices can arise, of melancholia without delusion, where all the facts of life are correctly apprehended, but cause for gloom is extracted from them all.

It might be anticipated *a priori* that this *sittliche Anästhesie* would be readily produced. Those moral judg-

ments that we sum up in the word conscience are usually very complex, demanding the comparison of many different terms, and further, needing to be applied to individual cases with some discernment. When it is added to this, as Dr. Savage remarks, that they were last in development among human endowments, we should naturally expect them to be the most liable to fail. Dr. Savage's extensive experience has enabled him to mention numerous cases in which he has observed this form of moral insanity. I gather from his account, and from those of systematic writers, that it occurs chiefly in two conditions, namely, as a precursor or a consequence of more obvious insanity, or else as an inheritance from neurotic parents. I do not know if I am right in endeavouring to distinguish the systems of the two varieties; but perhaps by so doing I may call the attention of some more competent observer to the matter. The cases which precede or follow ordinary insanity are characterised by an alteration in the way they are affected by their surroundings. Their general moral judgments remain on the whole as before, but cannot be applied correctly to particular instances. These are the patients who are indifferent or averse to the persons they had previously loved, who unreasonably change their religion, their occupation, or their mode of life, and who seem to lose all sense of proportion between their income and their expenditure.

The hereditary patients are in much worse case. They also may be abnormally affected by external objects, but the main landmarks of their moral nature seem to have been misplaced, so that they are devoid of the general tests to be applied to individual actions, or—more perversely still—call evil good, and good evil. Abundant illustrations of this are to be found in Dr. Savage's paper, and must be among the most miserable experiences of us all. I am inclined to think this form of moral insanity may be most easily studied, not in these extreme instances, but in the slighter examples of moral eccentricity which we meet with so constantly in persons with an insane ancestry.

At any rate, both these symptoms are readily accounted for on physiological principles. To begin with the latter case: It is clear that, on any hypothesis of the relations between mind and body, all the cortical centres must be capable of acting together, and some must be habitually associated (either congenitally or by practice) as a condition necessary for the normal working of the mind in discovering

the mutual relations of ideas. We have only to suppose that certain of these are dissociated, or that (by congenital malformation) certain cortical cells are connected which are normally separated, to conceive how either the most unnatural associations of ideas, or moral insensibility, may occur.

I have already said that we have a perfect analogy to the condition in which patients are abnormally affected by their surroundings in the state of melancholia without delusion. In both it is probable some change in the nutrition of the cortical centres makes that painful which before was pleasant, or the reverse. The change is well recognised in the case of the organs of sense: "*Palato non sano pœna est panis, qui sano est suavis; et oculis ægris odiosa lux quæ puris est amabilis.*"

I now come to the more difficult inquiry, how any bodily disease can interfere with our moral *choice*. In order to suggest an explanation, I am compelled to deal with the subject of free-will; and, lest I should be suspected of partizanship, I had better say at once I am fully conscious of the difficulties surrounding this subject, and that I envy all who can be satisfied with either the libertarian or the determinist solution. To come to my point: In the great debates on free-will in the seventeenth century, two different views were for the first time distinctly propounded. It was on the one hand contended that our moral freedom consists in our power of choosing what appears at the time the less desirable of two courses, so that the will need not follow the judgment; which would be, I suppose, the popular notion of free-will, if it could be put into precise language.

On the other side it was maintained (for this was the older view) that the will always follows the judgment, and that we always do what most commends itself to our reason at the moment of choice. Our freedom, on this view, consists not in our independence of motives, but in our liberty of thought (*liberum arbitrium*), whereby we can turn our thoughts in any direction, so as to look away from the motives on one side, introduce fresh ones on the other, and finally close the debate when we please, or continue it until we are satisfied. The two views have been well expressed by Dr. Carpenter. He says: "It has been held by some that when a man is struggling with a temptation . . . the will acts as an independent preponderating power, like a hand pushing down the scale-beam on one side. It appears to the

author, however, to be much more conformable to the results of a careful examination of our own conduct to regard the will as imparting an augmented gravity (as it were) to the weights on one side, by directing attention to their value, . . . whilst it diminishes the force of those on the other side, by preventing the mind from giving its attention to them."

Each of these views has difficulties of its own, but taking the latter (as I do) to be much the more accurate, it will not be difficult to see how our freedom of choice will depend upon the integrity of our brain. For the power over our own thought, which on this theory is the essence of free-will, is clearly of two kinds; on the one hand, fresh subjects may be at any time introduced to determine the choice, or, on the other, some motives may be excluded from consideration, or the debate finally closed. That is to say, we have to do with a process which in both its positive and negative aspects corresponds with attention. And it is generally held by physiologists that the cerebral function requisite for attention is a process of inhibition over the cortical centres (akin to that which controls the inferior provinces of the nervous system) which Dr. Ferrier localizes in the anterior lobes of the brain.

I think abundant evidence of the correctness of this view may be derived from considering the pathology of mind. To begin with the slighter instances, who is so fortunate as never to have experienced periods of irresolution and vacillation, when he could not "make up his mind" to take one of two courses, perhaps in some very unimportant matter? Those who have suffered from it will, I think, agree that this condition is closely akin to the inability to concentrate the attention on any subject which is even more common.

Cases where irresolution and inability to determine upon any course of action are carried to the extent of positive insanity are not very frequent; but every one must have seen such (I have two well-marked ones in my recollection), and have witnessed the misery they cause to the patient and his surroundings. In such cases there is no inability to realize the motives on either side; the failure is rather the contrary, an absolute incapacity to exclude any that present themselves to the mind.

Happily this loss of inhibitory power is generally due to some disturbance of the general health, or of some distant organ. It is not ordinarily permanent, and there is no im-

pairment of the higher perceptive centres, so that motives of all kinds still co-exist, and the patient is not usually morally perverse, but rather scrupulous and capricious. But when more direct injury to the brain weakens or destroys these higher centres, as well as those concerned in inhibition, no motives will be present to the mind save the lower ones, and the mind will be incapable of looking at the other side of the question. Such is, I believe, the explanation of that absolute loss of self-control and subjection to the passions (notably to the most imperious of them all) which will break out suddenly as a result of sun-stroke, of injuries to the head, of acute febrile disease, and in the early stage of general paralysis.

I have now completed the analysis which I proposed to myself at the beginning of this paper, and it will probably be considered by any one who has had the patience to follow me that I have been thoroughly unpractical, having detailed no new cases of interest, but only indulged in psychological speculation. Such has, indeed, been my object. I am convinced that the obscurity which involves the study of "moral insanity" is due to our confounding many wholly disparate states under that term. I by no means pretend to have exhaustively stated all the different ways in which moral perversion may be produced by bodily disease, but I trust that I have made a beginning, which may induce some one more competent than myself to undertake the task.

Some Observations on the State of Society, Past and Present, in Relation to Criminal Psychology. By David Nicolson, M.D., Deputy Superintendent, State Criminal Lunatic Asylum, Broadmoor.

(Continued from Vol. XXVII., page 370.)

6. In 1630 Alexander Hamilton confessed to having met the devil in the likeness of a black man riding on a black horse. He renounced his baptism, and engaged to become the devil's servant, on receipt of four shillings sterling. The devil instructed him how to be *revenged of his enemies*, and further gave him a spell by which he *killed the Lady Ormestone and her daughter in revenge of the lady's having refused him the loan of a mare, and having called him nicknames.* Lastly, he *declared* he had many meetings with the devil, from whom he once got a severe drubbing for not keeping an appointment.

7. An Act and Commission of Parliament were passed on the 12th July, 1649, and another on the 7th of August, constituting Sir James Melville, of Raith, Alexander Orrock, of Orrock, Robert Aytoun, of Inchdarine, and certain baillies of Burntisland, judges, with powers to try certain persons for the crime of witchcraft. Janet Brown was the first brought before them. She was charged in the indictment with having held "a meeting with the devil appearing as a man, at the back of Broomhill, who was at a wanton play with Isabel Gairdner, elder, and Janet Thomson; and he vanished away like a whirlwind;" and with having there renounced her baptism, upon which the devil *sealed her as one of his, by a mark on the right arm, into which Mr. James Wilson, minister of Dysart, in presence of Mr. John Chalmers, minister of Auchterderran, thrust a long pin of wire into the head, and she was insensible of it.* And the like experiment was tried in presence of Mr. Dalgliesh, minister at Cramond, &c. The prisoner and two other women were *convicted, condemned, and executed in one day.*

Within a few days after, other three miserable women arrived at the last stage of a common journey, in those days of superstitious ignorance, viz., from the parson of the parish to the criminal judges, and from the criminal judges to the executioner. They were arraigned before the same tribunal on the hacknied charge of meeting with the devil. In each of the three indictments, it is added that the prisoner confessed, in presence of several ministers, baillies, and elders. And it appears from the verdict of the jury that *these inquisitors were produced before the court to prove the extra-judicial* confessions of the miserable prisoners, who had already been harassed, perhaps out of their senses, or rendered weary of life, by the persecutions of brutish ignorance and diabolical cruelty. The judges ordered them to be taken that same afternoon to the place of execution, and then to be strangled at a stake and burned.

8. Isabel Elliot and nine other women were tried for witchcraft in one day (1678). The articles of indictment against all of them were pretty much the same. Those exhibited against Isabel Elliot were as follow:—That about two years ago *she staid at home from the kirk* at the desire of her mistress, who was a witch, when the devil had a meeting with the prisoner, her mistress, and two other witches; that he kissed the prisoner, baptized her on the face with a waff of his hand like a dewing, and offered to lie with her, but forbore, because she was with child; that after she was kirked, the devil often met her, and had carnal copulation with her. For this last named offence, the prisoner and the other nine miserable women underwent all the legal forms incident to their unhappy situation among that *deluded and barbarous people.* They had been prosecuted by Her Majesty's Advocate; they judicially acknowledged their guilt, were convicted by the jury, condemned by the judges, and burned by the executioner.

9. Case of the hysterical Christian Shaw, otherwise called the "Impostor of Bargarran." At the very end of the 17th century, an *impostor* appeared in the character of a person *tormented by witches*, Christian Shaw, daughter of John Shaw, of Bargarran, a gentleman of some note, in the county of Renfrew. She is said to have been but eleven years of age. And although it is probable that hysterical affections may in part have occasioned her rhapsodies to proceed from real illusion, as well as accounted for the contortions which agitated her body, yet she seems to have displayed an artifice above her years, an address superior to her situation, and to have been aided by accomplices, which dulness of apprehension, or violence of prejudice, forbade the bystanders to discover.

This actress was abundantly pert and lively; and her challenging one of the housemaids for drinking, perhaps for stealing, a little milk, which drew on her an angry retort, was the simple prelude to a complicated and wonderful scene of artifice and delusion, of fanaticism and barbarity.

In the month of August, 1696, within a few days after her quarrel with the housemaid, the girl was seized with hysterical convulsions, which in repeated fits displayed that variety of symptoms which characterize this capricious disease. To these other appearances were speedily added, which could only be attributed to supernatural influence, or to fraud and imposition. She put out of her mouth quantities of egg-shells, orange peel, feathers of wild and bones of tame fowl, hair of various colours, hot coal, cinders, straws, crooked pins, &c. Having by those sensible objects impressed the public with the most complete and fearful conviction of her being "grievously vexed with a devil," she found herself capable to command the implicit assent of the spectators, in matters that were repugnant to the evidence of their own senses. For this purpose, she fell upon the device of seeming to possess the faculties of seeing and hearing in a manner opposite to that of the rest of mankind. She would address some invisible beings as if actually present; at other times in her conversations with those invisible beings she would rail at them for telling her that persons actually present were in the room; protesting that she did not see them, yet at the same time minutely describing their dress. For instance, she spake as follows to the chief of her alleged tormentors, Catherine Campbell, with whom she had the quarrel, and who, to use the language of those times, was not discernably present:—"Thou sittest with a stick in thy hand to put into my mouth, but through God's strength thou shalt not get leave; thou art permitted to torment me, but I trust in God thou shalt never get my life. I'll let thee see, Katie, there is no repentance in hell. O, what ailed thee to be a witch! O, if thou wouldst repent, it may be God might give thee repentance, if thou wouldst seek it and *confess;* if thou wouldst desire me, I would do what I could, for the devil is an ill master to serve," &c., &c. After that she took up her Bible,

read passages, and expounded them ; and upon one's offering to take it from her, she shrieked horribly, exclaiming, "She would keep her Bible in spite of all the devils in hell." Then she fought, and kicked, and writhed herself, as if struggling with some invisible tormentor. When the sheriff-depute of the county, accompanied by a Macer of Justiciary, came to apprehend some of the persons whom her diabolical malice had accused, and were actually in her presence, she addressed an imaginary correspondent thus :—"Is the sheriff come? Is he near me?" (Then stretching forth her hand, as if to grope, and the sheriff putting his hand into hers, she proceeded.) "I cannot feel the sheriff. How can he be present here ? or how can I have him by the hand as thou sayest, seeing I feel it not? Thou sayest he has brown coloured clothes, red plush breeches with black stripes, flowered muslin cravat, and an embroidered sword belt ; thou sayest there is an old gray-haired man with him, having a ring upon his hand ; but I can neither see nor feel any of them. What, *are they come to apprehend the gentlewoman*? Is this their errand, indeed ? "

These reiterated and lawful exercises of the dominion of Satan (for such they were universally deemed) impressed all ranks with amazement and terror. The clergy, as was their duty, were the foremost to embrace the cause of a disciple that was engaged *in more than spiritual warfare* with the grand enemy. Clergymen, in rotation, attended the afflicted damsel, to assist the minister of the parish, the family of Bargarran, and other pious Christians, in the expiatory offices of fasting and prayer. A public fast was ordained by order of the Presbytery. Three popular clergymen successively harangued the trembling audience ; and one of them chose for his theme this artful text : "Woe to the inhabitants of the earth and to the sea, for the devil is come down unto you, having great wrath, because he knoweth he hath but a short time. And when the dragon saw that he was cast down unto the earth, he persecuted the woman."

And the prayers and exhortations of the Church were speedily seconded with the weight of the secular arm. On the 19th of January a warrant of Privy Council was issued, which set forth that there were pregnant grounds for suspicion of witchcraft in the shire of Renfrew, especially from the afflicted and extraordinary condition of Christian Shaw. It therefore granted a commission to Lord Blantyre and others to interrogate and imprison persons suspected of witchcraft, to examine witnesses, &c. (but not on oath), and to transmit their report before the 10th of March. In the report, which was presented on the 9th March, the commissioners represented that there were twenty-four persons, male and female, suspected and accused of witchcraft, and that further inquiry ought to be made into this crime. Among these unhappy objects of suspicion, it is to be remarked that there was a girl of fourteen, and a boy not twelve years of age. Agreeable to this report, a new warrant was issued by the Privy Council to most of the former commissioners, with other names

added, to meet at Renfrew, Paisley or Glasgow, to take *trial of, judge and do justice* upon the foresaid persons; and to sentence the guilty to be burned, or otherwise executed to death, as the commissioners should incline. After twenty hours were spent in the examination of witnesses, who testified that the *malefices* * libelled could not have proceeded from natural causes, and that the prisoners were the authors of these *malefices*, and after five of the unhappy prisoners confessed their guilt and criminated their alleged associates, counsel was heard; and the counsel for the prosecution loudly declared to the jury that, although they ought to beware of condemning the innocent, yet, if they should acquit the prisoners, in opposition to legal evidence, "*they would be accessory to all the blasphemies, apostacies, murders, tortures and seductions, whereof these enemies of heaven and earth should hereafter be guilty.*" After the jury had spent six hours in deliberation, seven of those miserable persons were condemned to the flames.

These instances (continues our author) afford a sufficient specimen of the mode of prosecution against the multitude of miserable persons who were sacrificed at the altar of the Fatal Sisters—Ignorance, Superstition, and Cruelty. But it is impossible to form an estimate of the number of victims. For not only the Lords of Justiciary, but baillies of regalities, sheriffs of counties, and the endless tribe of commissioners appointed by the Privy Council (at one sederunt of Council fourteen separate commissions to take trial of witches were granted), and sometimes by Parliament, officiated as the priests who dragged the victims to the altar.

10. Elspeth Rule was tried at the Dumfries Circuit in May, 1709. No special act of witchcraft was charged against her: the indictment was of a very general nature, that the prisoner was habit and repute (that is, generally holden and deemed) a witch, and that she had used threatening expressions against persons at enmity with her, who were afterwards visited with loss of cattle or the death of friends, and *one of whom run mad.* The jury, by a majority of voices, found these articles proved, and the judge ordained the prisoner to be burned on the cheek, and to be banished Scotland for life.

These illustrative cases are of no ordinary import. They are not the mere verbal traditions of a country side, traditions which, however much they may be truthful echoes of national or local sentiment or superstition, nevertheless fail, as matter of *fact*, to satisfy the requirements of historical criticism. These cases are from the official registers of the law courts of the period, and they, therefore, carry with them all the weight of authentic records. The few that I have selected from Arnot's "Criminal Trials" are enough to serve

* *Malefice*, in the Scotch law, signifies an act or effect of witchcraft.

as illustrations of a state of society so terrible and so unnatural as to seem altogether impossible were it not that the proofs of its existence are so abundant and so genuine.

Are such records to be looked upon as criminal charges or indictments written out by society against itself, or are they to be regarded as having a pathological significance, as affording indications in fact that Christendom * had "run mad upon a cruel and absurd delusion?"

It is not necessary at this point to insist too closely upon what we may take to be the psychological value of a mere *belief* in witches or in witchcraft, for, as I have already said, such a belief is not to be taken as the measure of sanity or insanity; but when a belief of this sort leads up to a criminal act on the part of the person so believing, when it becomes the antecedent upon which that act depends, we can no longer blink the question.

A. murders B. simply and solely because he believes B. has bewitched him and worked evil upon him by charms and enchantments.

Is A. to be allowed to walk off, unheeded or unpunished, as one who has acted within his social rights, the homicide being, so to say, *justifiable?*

Is A. to be hanged as a murderer?

Is A. to be looked upon and treated as a lunatic?

Or again, A. believes that B., possibly a total stranger, has bewitched him and worked evil upon him. A. refers his case to S. (society), whose authority is supreme and final, for adjudication. Upon A.'s statement, S. interrogates, tests, tortures, and finally burns B. as a witch. What are we to say of the conduct of S.?

The relations of what is called "witchcraft" to the criminal psychology of this dark period of European history are so complex that they are not easily capable of intelligible concentration.

The belief in witchcraft, sorcery, and the like had far too real an influence on the social life and character to warrant any one in bringing the bearings of such a belief to a rough-and-ready focus as "stuff and nonsense," and there dismiss-

* As the bitter "crust" in port wine, and the blood-curdling "ghost" in family tradition, so the devil-dealing heresy in Christendom appears to have been taken as evidence of the high class article, for we are told in the commentary to the Marquis Beccaria's work on crime that the Turks were *reproached* with having amongst them neither sorcerers, witches, nor demoniacs, and the want of the latter was considered as an infallible proof of the *falsity* of their religion.

ing the subject. Nor is it enough to pass witchcraft by, in its relations with social and criminal psychology, as nothing more than a casual product of ignorance and superstition. In the instances and records which I have strung together, and which could easily be multiplied a thousandfold, I have said enough to show how completely disorganized was the public mind, how insecure was human life, and how relentless and malevolent was social feeling in the persecution of its victims. Here we have witchcraft stamped as a crime, and prosecuted to the bitter end as a capital offence. Looking at these facts in the light of the present day, and estimating their value among the numberless processes of human thought and action, I do not see that we can come to any other conclusion than that *society created the crime, and manufactured (and likewise murdered) the criminals.*

Buckle says:—"The offences of men are the result not so much of the vices of the individual offender, as of the state of society in which that individual is thrown;"* and in a foot-note he gives the following quotation from Quetelet, sur l'Homme (vol. ii., p. 325):—"L'expérience démontre en effet, avec toute l'evidence possible, cette opinion, qui pourra sembler paradoxale au premier abord que c'est la société qui prépare le crime, et que le coupable n'est que l'instrument qui l'exécute."

It would be difficult to produce clearer instances of what may be called society-made criminals than those in the cases of witchcraft which I have related. Like heresy, witchcraft and sorcery came to take rank not merely as misdemeanours. but as felonies and capital crimes.

In his "Commentaries on the Laws of England," Blackstone tells us (p. 60) that "our forefathers enacted by Statute 33 Hen. VIII., c. 8, all witchcraft and sorcery to be felony without benefit of clergy (or worthy of instant death); and again by Statute 1 Jac. I., c. 12, that all persons invoking any evil spirit, or consulting, covenanting with, entertaining, employing, feeding, or rewarding any evil spirit, or taking up dead bodies from their graves to be used in any witchcraft, sorcery, charm, or enchantment, or killing or otherwise hurting any person by such infernal arts, should be guilty of felony without benefit of clergy, and suffer death. And if any person should attempt by sorcery to discover hidden treasure, or to restore stolen goods, or to provoke

* "History of Civilization in England" (ed. 1873, vol. i., p. 29).

unlawful love, or to hurt any man or beast, though the same were not effected, he or she should suffer imprisonment and pillory for the first offence, and death for the second." What a category of possible opportunities for accusation !

Blackstone further says (*loc. cit.*) :—

> The civil law punishes with death not only the sorcerers themselves, but also those who consult them, imitating in the former the express law of God, "Thou shalt not suffer a witch to live ; " and our laws, both before and since the Conquest, have been equally penal, ranking this crime in the same class with heresy, and condemning both to the flames. Indeed, the ridiculous stories that are generally told, and the many impostures and delusions that have been discovered in all ages, are enough to demolish all faith in such a dubious crime, if the contrary evidence were not extremely strong. Wherefore it seems to be the most eligible way to conclude, with an ingenious writer of our own (Addison, *Spectator*, No. 117), that in general there has been such a thing as witchcraft, though one cannot give credit to any particular modern instance of it.

This is not a satisfactory way out of the difficulty ; indeed, it is no "way out" at all. It is as if the law said, "I believe ; help mine unbelief. Witchcraft was a crime, and therefore was ; witchcraft is not, and therefore is not a crime." Whatever credence the illustrious jurist could give to any "modern instance of it," it so happens that in his own lifetime individuals (two or three, at all events) suffered death for being witches.

Let us see if we cannot find a more logical and consistent conclusion than this. In all time there have been, in the history of human mind, exceptional cases where individuals have deviated from the somewhat arbitrary average of intellectual capacity and national disposition (shall we say from the somewhat arbitrary average of sound mind ?). Eccentric deviations of this sort, more especially when they were the accompaniment of old age or physical deformity, were not always explainable on the then theories of the relations existing between body and mind. In the ignorance that prevailed, the unconscious or incoherent ramblings of dotage or of partial imbecility were looked upon as incantations and modes of bewitchment. Besides, malicious and envious dispositions, combined, perhaps, with hysteria, epilepsy, or imposture, made excellent capital out of the existing state of ecclesiastical and legal opinion. On the one hand, imbeciles, lunatics, dotards, would-be-wise simpletons, old

crones, and the like were got rid of as criminals; and on the other, people of sound mind were destroyed on criminal charges, the innocent victims either of malice and superstitious fancy or of epileptic ravings and insane delusions.

Thus arose a species of criminal lunacy.

Given a lunatic proclaiming his superhuman capacity and powers, or cursing or assaulting his neighbour for (as he falsely imagines) persecuting him, or in an undertone speaking to himself, such a lunatic stood a very considerable chance of being put to the test as a dealer in witchcraft or sorcery, convicted out of his own mouth, condemned as a criminal (lunatic), and burned. In the then state of society, and on the convenient doctrine of "whatever is, is right," such was the *direct* relation of witchcraft with lunacy.

It had an *indirect* relation, too, as where the epileptic or insane visionary saw the "evil eye" in his neighbour, or detected his tormentor in the stranger or casual passer-by. The condemnation of the innocent neighbour or stranger was procured on the solemn and vehement allegation of the lunatic, who pointed to the "suspect" as the source of real or imaginary damage or disease.

There are plenty of Amy Dunys and Rose Cullenders about in the present day, ugly people who quarrel with their fishmongers. Every asylum has its Alison Pearsons, with their happy visions of elfland, its estactic John Cunninghams, its "devil-raising" Sandie Hamiltons, its sensuous and erotic Isabel Elliots, just as every community has its hysterical, cinder-eating, blood-spitting, mischief-making impostors, like Christian Shaw, of Balgarran. Who amongst us is so unfortunate as not to have as friend or acquaintance the dear, dressy old lady, the tea-drinking, chattering "body," the "nice old thing" with her words of wisdom, whose face shows just a suspicion of "nut-crackers," and whose every prim movement makes us feel for the moment living in that bygone age when we are sure that, with all her quaint mediævalism, she would have been taken for a witch? Who, again, can forget the "creepy" sensation caused by the proximity of the dirt-begrimed and shrivelled hag, barely human in her ill-assorted rags, shambling gait, bleared eyes, and unconscious mumblings? Of a truth, do we not meet many oddities and quaint-looking people upon whose eccentricities society can scarcely be expected to congratulate itself or to smile?

We can imagine "our (legislative) forefathers" looking

up at us and saying, "No burnings for witchcraft going on? You don't look half grateful enough to us for our wise enactments which have thus served to extinguish what was a most horrible and prevalent crime!" We respect antiquity, and we scarcely like to imagine ourselves telling them, "No! no burnings for witchcraft! The epileptics, lunatics, and paralytics whom you strangled and burned as witches, sorcerers, and criminals, we regard and care for as epileptics, lunatics, and paralytics."

But if society can thus be shown to have created the crime, what about its having *manufactured* the criminals?

There might have been nothing wrong in society acting up to its "lights" (dingy enough, doubtless), and constituting this, that, or the other a crime in response to what it believed to be the necessities of the time, but if it manufactured victims, where are we to look for an excuse? That it did so there is no lack of testimony. Look how many persons were convicted upon false, untrustworthy, or weak evidence, or upon no real evidence at all! Look at the voluntary confessions! (such as a rambling lunatic only or a distracted person would make). Look, finally, but most damningly, at the fearful torture inflicted! The discovery of truth by torture is, as the learned Beccaria has pointed out, a mathematical rather than a judicial problem. The solution has to be worked out on the following formula:— "The force of the muscles and the sensibility of the nerves of an innocent person being given, it is required to find the degree of pain necessary to make him confess himself guilty of a given crime." *

Arnot says that "from the universal and excessive abhorrence entertained at a witch, a suspicion of that crime, independent of judicial severities, was sufficient to render the unhappy object anxious for death. Thrusting of pins into the flesh, and keeping the accused from sleep, were the *ordinary* treatment of a witch; but if the prisoner was endued with uncommon fortitude, other methods were used to extort confession. The boots, the caspie-claws, and the piline-winks, engines for torturing the legs, the arms, and the fingers, were applied to either sex, and that with such violence that sometimes the blood would have spouted from the limbs. Loading with heavy irons, and whipping with cords till the skin and flesh were torn from the bones, have

* "Essay on Crimes," p. 64.

also been the adopted method of torment. When Alison Balfour was accused of witchcraft she was put in the caspie-claws, where she was kept for forty-eight hours; her husband was put in heavy irons, her son put in the boots, where he suffered fifty-seven strokes, and her little daughter, of about seven years of age, put in the pilnie-winks, in her presence, in order to make her confess. She did confess. She retracted her confession in the course of the trial, and publicly, at her execution, declared that the confession was extorted from her by the torments." This account of Alison Balfour is quoted by Arnot from the "Records of Justiciary," June 4th, 1596.

What evidence! what justice! Need anything more be said to show that in the matter of witchcraft society not only created the crime, but also manufactured the criminals?

(To be continued.)

On the Education of the Insane, and the School System as Carried out at Richmond District Lunatic Asylum, Dublin. By John Fox, Schoolmaster of the above Asylum. Being a paper read at the Dublin Meeting of the Social Science Congress, October, 1881.

In attempting a description of the School System as carried out in this institution, I am undertaking a task the accomplishment of which I feel at the outset must be very imperfect indeed; but considering how often I have had to answer such questions as the following—"What is the use of a school for lunatics?" "What can you possibly teach them?" I think it is due to my position to describe as well as my abilities permit our system, inviting at the same time all interested in the welfare of the insane to come and see for themselves its beneficial influences.

It is not surprising to hear such objections as the above questions indicate urged against our system, especially in this age of progress, which invariably connects the idea of a school with that of literary and scientific advancement; but I would submit, they evince a total misconception of the end and aim of our School System.

It is my most earnest desire to remove such misconceptions, and with this view I have endeavoured to put together, as briefly as possible, a description of the School System as carried out in our asylum.

It would be quite beyond my reach to deal satisfactorily with the beneficial influences of education on the insane; besides, the subject has been ably dealt with on many former occasions at psychological and kindred associations by our Superintendent, Dr. Lalor, who may justly be styled the "father of the system," and to whose guiding spirit and untiring zeal in the care of a suffering humanity the efficiency of our School System is entirely due.

It is important to bear in mind, in examining the system, the principles upon which it is based, with the object held in view. The treatment pursued in a case of bodily disease might be not inaptly used as an analogy to illustrate our system. To deprive the stomach altogether of nourishment would be fatal; but by food, varied, simple, and palatable in quality, and small in quantity, a diseased stomach may be restored to a healthy condition; so in the treatment of the mind, whilst securing from all danger of starvation the School System affords to the inmates intellectual food, varied, simple, and palatable in quality, and imparted in quantities small and proportioned to the different capacities of the patients. This system must be, in the eyes of any impartial observer, admirably calculated to heal the disordered faculties, bringing into action those which had lain dormant, and so restoring the sufferer to society; or, at least, if that be not possible, alleviating the monotony of his existence, and infusing a spirit of order and cheerfulness into the everyday life of the asylum.

Whilst my remarks shall be confined to the male school, I may observe in passing that the system pursued in the female school being the same as that carried out in the male, a description of the one conveys a fair idea of the other.

The daily average number of male patients is about 450, and they are grouped into five divisions, which may be conveniently designated the Receiving, the Farm, the Epileptic and Suicidal, the School (so called because the more intelligent patients are in this division), and the Hospital. With exception of the Hospital, numbering 42 patients, school exercises are carried out in each of these divisions.

The patients of the Farm division, numbering about 84, are engaged for the greater part of the day in garden, smith work, and carpentry. Of this number about 70 attend school on three evenings of the week for an hour after supper.

School exercises are held, in the other three divisions, for about four hours daily.

The Receiving division numbers 50 patients; about 30 of these attend school, and 16 work at farm labour. There are generally to be found two or three patients who, owing to their mental condition, are incapable of taking part in any exercise; it is, however, to be observed that the same individual rarely continues so incapable for many days. Every other patient in the division being engaged at some occupation, these few, finding themselves completely isolated, are attracted to the school classes, and subsequently to that employment which is best suited to their condition. There are many cases of patients who persisted for a lengthened period in refusing to do anything, but who were ultimately induced to take part in the school exercises, and some of the most useful inmates to-day of the institution were of this class.

In the Epileptic and Suicidal division, with 130 patients the school exercises are carried out in the two day rooms, one for each class of patients. About 90 attend school, and they are equally divided between the two rooms; the remaining 40 are employed at painting, mason, farm, and wire-basket work, chimney sweeping, shoe and mattress making. A few patients, varying from two to six, are to be found here, as in the Receiving division, unwilling to do anything from the same cause, and the observations made with respect to that class in the Receiving are equally applicable to those in the Epileptic and Suicidal division.

The School division, with 144 patients, has about 90 in daily average attendance at school, and, as in the Epileptic and Suicidal division, the exercises are carried out in the two day rooms; but in this division it is usual during school hours to keep the more intelligent patients in one room, whilst their less gifted brethren occupy the other. Fifty-four patients of this division are engaged wholly in office, mason, and farm work, tailoring, shoemaking, and plumbing; and there are here, as in the other division, a few who from time to time refuse to join in any exercise. The Blotter, a summary of the numbers at the various occupations, and under medical treatment, &c., each day, is kept by a patient in this division, and another patient records daily the height of the barometer and the wet and dry bulb thermometer.

It will be observed in this cursory review that besides the patients who are wholly engaged in school exercises, there

are in each division a number who are employed at various industrial pursuits. This arrangement has many advantages, for besides affording a convenient means of varying the occupation of the patients, it brings those who are wholly engaged at industrial works within the influence of the School System. Although such patients are not included in the school averages, they yet enjoy many of its advantages, such as association with school patients, the instructive prints and school charts, the library, &c.

Thus the beneficial influence of the School System is brought to bear on every patient in the institution, whilst at the same time the extensive structural and other improvements effected wholly by the patients within the last few years show that industrial occupation has progressed equally with that of the School System.

The patients are divided for educational purposes into six classes, taking the National School reading books for standard. Not that it is to be supposed that all the pupils are up to the requirements of the programme laid down for each of these classes, but that the programme is kept in view in such subjects as are taught. A patient may be up to the standard of a fifth or sixth class pupil in one or two subjects, and below that of a second class pupil in another. Reading, arithmetic, and geography are the principal guides to the school classification of the patients. The proportion of pupils in the higher classes is, as might be expected, greater in the School than in the other divisions.

The mind, as a whole, being divisible into moral, mental, æsthetical, and physical faculties, the subjects embraced in the educational system of the insane must be such as are best calculated to develop each of these faculties, whilst the order observed must be such as will not unduly exercise one faculty at the expense of another.

The moral faculties are developed by religious instruction, moral reading lessons, and judicious moral deductions, which may be drawn from almost every school lesson. The mental faculties are developed by object lessons, lessons on colour and form, reading, geography, and arithmetic. The æsthetic faculties by writing, drawing, and music, and the physical by drill and marching; the latter may be considered as combining exercise of the æsthetic as well as of the physical faculties of the mind.

Religious instruction takes place once each week, at which

about 90 Catholics and 25 Protestants attend. It is held in the respective places of worship, and consists chiefly in catechetical instruction and hymns. Each chapel is furnished with a very good harmonium, and the sacred music for the following Sunday is rehearsed. Some of the best-conducted patients join in the choirs on Sundays.

The object lessons and lessons on colour and form, being most important in the education of the insane, have received that amount of attention which their importance demands. The lessons are given either from real objects or from pictures. The system followed in lessons on real objects is that laid down by Miss Mayo in her valuable work, "Lessons on Objects;" and to illustrate these lessons, "Edwards's Educational Cabinet" is of very great assistance. This cabinet has been obtained at a reduced rate through the National Board of Education. The form adopted in these lessons is to hand a real object, such as a piece of indiarubber, to one in the class, asking him at the same time to name it; its colour is then asked, its shape, and its qualities, getting the patients by experiment to find out that it is smooth, tough, flexible, opaque, inflammable, and elastic, winding up with a few questions on its uses. Patients will answer on such a subject as this, although on other points they are quite reticent. The lessons from pictures are principally natural history subjects, and are used to vary those on real objects. The natural history illustrations, obtained at a reduced rate through the National Board of Education, furnish an ample supply of interesting subjects for lessons of this kind. Lessons on colour and form are a species of object lesson, and consist in spreading out on a table a number of square cards of various colours, or a number of pieces of wood shaped as circles, and the several kinds of triangles, quadrilaterals, &c. The patients are asked to pick up the colour or form corresponding to that which is pointed out on a chart hung up before the class.

Reading lessons are a favourite subject with the senior classes. The excellent reading series of the National Board abound in subjects of an attractive and interesting as well as of an instructive nature, examination on the subject-matter forming the most important feature of this exercise. The descriptive or other lessons afford an opportunity to one or two in the class of expatiating on a subject in which they are better informed than their fellows. Digressions from the

subject-matter in the reading, as well as in most of the other lessons, are not uncommon, and are frequently productive of much good, serving to engage the attention of the whole class, and tending more in the direction of the end and aim of the system.

The geography for the lower classes consists chiefly in the outlines of the map of the World and Ireland; but in the senior classes there are, in addition, the maps of the five continents, England and Scotland, interrogatory maps being frequently used. Mathematical geography forms an engaging feature of this subject, and is generally listened to with great attention.

The arithmetical lessons of the first and second classes consist in counting with the ball frame, putting down and reading two places of figures, totting sums of three addends, and questions in mental arithmetic such as might arise in buying and selling the simplest articles. The third and fourth classes have, in addition, the other elementary rules and simple questions in the compound rules. The arithmetical exercises for these lower classes are more attractive when given in the form of questions entering into everyday life, and not mere abstract principles. The fifth and sixth classes are exercised by simple questions in proportion, practice, and interest, in which they exhibit a very fair proficiency.

Writing in copy books from head lines is principally confined to the third and fourth classes, the fifth and sixth having sufficient exercise in the writing of the school song-books and official documents, &c., connected with the asylum; the junior classes are practised in writing on slates, promotion to paper, to which they frequently aspire, being the reward of carefully written slate exercises.

The drawing class is supplied from patients of the fifth and sixth grades, and the subjects they are exercised on are included in "Vere Foster's Drawing Copy Books." They are not, however, confined to these copies, as whenever a patient exhibits a taste in this line he is afforded every opportunity of developing it, and the large number of sketches which have been executed by former patients, being carefully preserved, are a proof that this principle is not lost sight of. It might be remarked here that not in drawing only, but in any other occupation for which a patient exhibits a particular aptitude, he is (should his mental condition allow) encouraged to follow his favourite pursuit, and does not take

part in the other school exercises. The great number of patients who here act as monitors, assist in the offices, and keep the permanent records of the institution, is to be attributed to this custom.

Music might be termed the backbone of the system, for it interests the greatest number, and when all other means fail in engaging the attention of one suffering from an acute form of mental disorder, the singing class is the first to attract his notice, gradually inducing him to join in it, and in a few days he may be found occupied in every one of the school exercises, thus falling into the regular and orderly habits of the school patients. As might be supposed from its rank in the School System, music has received much attention and development. The school song-book is the fruit of many years' experience, and consists of a choice selection of lively operatic airs, Christy Minstrel songs, Irish melodies, &c., and from time to time modern compositions, if they are likely to be attractive, and not too difficult of execution, are added to the collection. The number of copies of songs required, in order that each patient in the singing class may have one song-book, supplies a fair amount of writing exercise to the senior classes, as was referred to on the subject of writing. The singing is accompanied with instrumental music, a patient usually playing on the harmonium, whilst the teacher conducts. The theory of music is not overlooked, a portion of the singing half-hour each day being devoted to practising the scale, which is pointed out on the hand, following Hullah's admirable system. Exercises in unisons and seconds from Hullah's sheets are also practised.

The subject of music leads naturally to drill and marching, being closely connected in an æsthetic and physical point of view. The drill consists in extension motions and falling into line, marching being usually combined with music, especially in the winter season. It serves wonderfully to infuse life and vigour into the most inert, who, by being placed here and there through the more active patients in marching, are induced to use faculties that no other means will bring into play.

The foregoing may be called the school exercises proper, but games and recreation, forming an essential portion of the School System, require some reference. Outdoor games consist in cricket, lawn tennis, football, skittles, ninepins, &c. Of these cricket, lawn tennis, and football are the most

popular. Football is the winter substitute for cricket and lawn tennis. The cricket or football matches are drawn once each week, played daily at recreation hour, and regularly scored by one of the patients. There are generally eleven on each side at cricket, but in football it is not unusual to see forty patients taking part in the game. The indoor games consist in billiards, bagatelle, chess, draughts, dominoes, cards, &c. There are some patients very expert at each of these games, who would be a match for many more sane players.

Besides these games there is a library of over 200 volumes, the books being lent to the attendants in charge of divisions, and returned periodically. A daily paper or two is supplied to each division, the *Express*, *Freeman's Journal*, *Irish Times*, and *Mail* being taken daily at the asylum. A copy of the *Graphic* or of the *Illustrated London News* is also provided for each division, and a monthly periodical or two, "All the Year Round," "Belgravia," "Cassell's Magazine," "Chambers' Journal," "Cornhill Magazine," and "Scribner's Monthly" being the magazines supplied. The weekly and monthly journals, after remaining their allotted periods in the divisions with the patients, are taken up to be preserved for binding. The good condition generally in which they are returned would be creditable in the most orderly family, whilst marginal and other notes, drawing attention to important passages, are not uncommon, and are evidence of careful perusal.

The order in which the school exercises are carried out is as follows :—The patients are arranged in a line at a quarter to nine o'clock in each division for inspection as to cleanliness, and those who are to be engaged at industrial employments are conducted by attendants to their respective workshops. The literary subjects commence at nine o'clock.

The patients in the Receiving division are collected into one class, being allowed to sit on chairs. This arrangement, after much experience, has been deemed (especially with recently admitted patients) the most desirable one. They are thus more easily attracted to the classes, and when promoted to the School division at once fall into its regular routine.

The system followed in the four rooms of the other divisions is a modification of that known as the "tripartite," which is so well expounded in Dr. Joyce's excellent "Handbook of School Management." This plan provides sitting

accommodation for two-thirds of the patients in each room, and no single patient is in a standing position for a longer period than half an hour at a time.

The time table is so constructed as to exhibit the teaching of as many different subjects at the same time as possible. The duration of each lesson is limited to half an hour, and in the more orderly rooms the patients march to music whilst changing places.

The singing class is formed at ten o'clock in one room, and the drill class in the other, of each of the two divisions designated School and Epileptic and Suicidal. About one-third of each division is engaged in the singing class, a little more than a third in the drill, and the remainder, not being singers and too old or feeble to be improved by physical exercises, are arranged on chairs in the singing class room and entertained with the school songs.

The recreation occupies from half-past ten till half-past eleven o'clock; it takes place in fine weather out of doors, and indoors in wet weather. Those patients who in outdoor recreation are not engaged in some of the games are kept marching in order round the walks for a portion of the recreation time, and are allowed to walk about the grass plots or sit on the garden seats for the remainder of the time.

The literary instruction is resumed at half-past eleven and continued till half-past twelve o'clock, the classes making one change of place and subject during the hour. This hour is on Thursday devoted to religious instruction.

Dinner takes place at one o'clock; it is presided over by the teachers. Grace is sung by the patients, accompanied with the harmonium; the patients who sing the grace dine on a platform at one end of the refectory.

The same order is observed during the winter six months, but each of the foregoing subjects takes place one hour later in the day.

A mixed concert class is held in the female school on Wednesdays and Fridays from three till four o'clock, in which from thirty to forty of the best-conducted male patients and about the same number of females take part.

Those patients who in the forenoon are principally occupied in school exercises are, on Mondays, Tuesdays, and Thursdays, provided with industrial employment, such as light farm work, for an hour from three to four.

The evening school in the Farm division is carried out on Monday, Wednesday, and Friday evenings from half-past six

till half-past seven o'clock. The patients are allowed to sit on chairs, and the subjects which obtain the greatest favour with them are geography, mathematical and descriptive, object lessons, and arithmetic.

The school patients, and all who can be spared, are on Mondays at ten o'clock, weather permitting, taken to the Phœnix Park, and return in time for dinner. This recreation is highly valued, and tends very much to promote the feeling of freedom from restraint which is so marked a characteristic of this asylum.

A select number are, during the summer season, brought to visit the Zoological and Botanic Gardens weekly. They are very much amused and instructed by these walks, the object lessons at this period taking the form of an introduction or supplement to the visit.

The highest number taking part in the country walks is attained on the Queen's birthday, when as many as 140 are sometimes brought to the review in the Phœnix Park.

The fortnightly dance, held from April to November each year, and which is conducted by the teachers, acting as stewards alternately, is a great source of recreation, and is much enhanced, when held within doors, by a concert of school songs, in which about sixty patients, male and female, join.

The midsummer games and Christmas amusements are another great source of pleasure, being enjoyed by anticipation for weeks previously, and it is not uncommon to hear patients asking two months prior to the usual time what day is fixed for the amusements.

My task is now completed; I have endeavoured to pass in review the School System, bringing into relief its main features, which are, firstly, to provide occupation for a large class, who otherwise would be unemployed; secondly, to vary the occupation of all the patients; thirdly, to apply a system of education to the relief of mental disorder; and, fourthly, to promote the happiness and welfare of all the inmates.

That the School System of the Richmond Asylum attains the first end, I would point to the large number on the school rolls who from their mental condition are incapable of being employed at any other occupation, or who, from their social position and habits previous to admission, cannot but look on industrial employment as a punishment; that it fulfils the second, I would draw attention to the admirably

conceived arrangement above portrayed, which brings the school classes into every division of the asylum; that the third end is attained, the School System, which exercises, moderately and judiciously, the faculties of the mind as above described, is a proof; and the spirit of order and cheerfulness pervading every part of the Richmond Asylum proves the fulfilment of its fourth aim.

A study of this description, supplemented by a visit to the asylum, will, I am convinced, amply repay the trouble, and serve to extend the knowledge of a system of moral treatment of the insane as near perfection as can well be of any institution of the present day.*

Hallucinations in General Paralysis of the Insane, especially in Relation to the Localization of Cerebral Functions. By Wm. Julius Mickle, M.D., M.R.C.P. London.

(*Continued from Vol.* XXVII., *p.* 511, *Jan.*, 1882.)

In the next place we arrive at the consideration of—

B. The supposed cortical auditory centre. (First temporo-sphenoidal convolution.)

In treating of the localization of the cortical auditory centres, the same plan will be pursued as has just been carried out in reference to the visual.

Case XVI.—Hallucinations of hearing were marked; and incomplete deafness came on at an early period. Here the assumed cortical auditory centres were affected, but less than certain other cortical centres.

Interlobar adhesions and congestion of the meninges were present. Also, thickening of arachnoid and pia mater, and serous infiltration of the latter, especially over the convexity of the frontal and of the anterior part of the parietal lobes, where the sulci were somewhat wide and rounded, and the convolutions somewhat wasted.

Adhesion and decortication were found over the frontal convolutions, over those of the anterior part of the parietal lobes, and, to a moderate degree, over those of the temporo-sphenoidal. The superior and external surfaces of the first two of these lobes, the external surface of the last, were those principally affected. Adhesion did not involve the occipital lobe, but was found strewn in patches over the internal surfaces of the cerebral hemispheres, and to a moderate degree on their inferior surfaces. It was nearly symmetrical in its

* See "Richmond Asylum Schools," by Dr. D. Hack Tuke, "Journal of Mental Science," Oct., 1875.

disposition on the two cerebral hemispheres. The cortical grey substance of the cerebrum was hyperæmic, of a mottled reddish-pink colour, softened, of fair depth, of imperfectly marked stratification. The white cerebral substance was universally softened and hyperæmic. The fluid in the lateral ventricles measured about three drachms. The grey commissure was wanting. The corpora striata and optic thalami were softened and hyperæmic. There were slight opacity and thickening of the meninges covering the base of the brain, especially in the orbital region. The cerebellum, pons, and medulla oblongata, were all diminished in consistence, as also was the spinal cord.

Case XVII.—In this case, where auditory hallucinations were vivid and prolonged, but where visual hallucinations were not noticed, the cortical changes were extensive, and were more marked in the left than in the right hemisphere.

The left frontal gyri were somewhat wasted, and their anfractuosities widened, and the pia-mater covering this part was slightly infiltrated with serum. The wasting also involved the ascending parietal convolution and the superior parietal lobule slightly. The meninges were very hyperæmic; they were also thick and tough, particularly over the superior and external surfaces of the left cerebral hemisphere.

In the *left* hemisphere, adhesion and decortication were most marked on the following convolutions: the angular, the posterior parts of the supra-marginal, and of the second and third temporo-sphenoidal; the posterior half of the first frontal and the greater part of the second frontal; the second external annectent. These changes were found in less degree over the other annectent gyri and anterior part of the occipital lobe, and over the third frontal gyrus; still less at the ascending frontal and first temporo-sphenoidal gyri. They were absent over the ascending parietal. On the internal surface of the left hemisphere the adhesion and decortication were well marked at the parieto-occipital fissure; were decided, but less marked, near the frontal tip; and still less along the whole length of the gyrus marginalis. They were nearly universal on the left inferior surface, particularly on the orbital gyri. In the *right* cerebral hemisphere, adhesion and decortication were absent over the occipital and annectent gyri; slight on some of the parietal prominences; very slight over the temporo-sphenoidal; and were moderately well marked over the frontal gyri, especially the upper surface of the first frontal, the inner aspect of which (marginalis) also showed a slight extent of the same change, as also did the neighbouring portion of the gyrus fornicatus. The right orbital surface was unaffected thereby.

Brain softer than natural, especially its left hemisphere. Grey cortex thin on left side, its strata not very obvious, its vessels very visible, and its colour ordinary. The white medullary substance was hyperæmic, and its puncta cruenta were numerous, especially in the posterior regions, and in and about the left corpus striatum. The walls of the fourth ventricle were roughened by granulations. The

vessels were deeply injected, and the meninges unusually thick and tough, over the pons and medulla oblongata, and these parts were hyperæmic on section, of lilac hue, and their vessels were dilated. The arachnoid was thickened at the interpeduncular space. The cerebellum was hyperæmic.

Thus, among some of the parts most affected in the *left* hemisphere were the posterior portions of the second and third temporo-sphenoidal gyri (the first being comparatively free), the angular gyrus, and the posterior part of the supra-marginal. In the right hemisphere, adhesion was very slight on the temporo-sphenoidal gyri, and only slight on the parietal. According to the theory, the functions of sight, and probably those of smell and taste, should have shown much disorder and subsequent impairment, while that of hearing should have been less actively deranged, though, no doubt, perturbed by the propinquity of its centre to the more active morbid changes. In reality, however, hearing was the special sense particularly disordered.

It may be added that, under the microscope, the vessels and nerve cells were considerably more diseased in the left third frontal convolution than in the first frontal; while the ascending frontal presented much the same changes as the first frontal, except that the vessels were more altered in the former. In the occipital lobe the microscopical morbid changes were slight.

Case XVIII.—Auditory hallucinations.

On the right side the external temporo-sphenoidal surface, including the supposed auditory centre, suffered considerably; on the left side much less. So far the theory is supported.

In the right frontal lobe, the grey cortex of the superior and external surfaces was markedly indurated, and was atrophied, reddish, hyperæmic. The rest of the right grey cortex was only slightly firm, and was far more normal in appearance, as was also the grey cortex of the left cerebral hemisphere. The white substance was injected in the right frontal lobe, pale in the rest of the right hemisphere, of ordinary vascularity in the left, and universally of a slightly increased consistence.

As for adhesion and decortication—in the *right* hemisphere there were a few points of adhesion on the prominences of the ascending convolutions, especially of the ascending frontal; also on the posterior part of the inner (marginal) surface of the first frontal. The third frontal was affected. The external surface of the temporo-sphenoidal suffered considerably. The inferior surfaces of the temporo-sphenoidal and of the frontal lobe were comparatively much freer from this change. In the *left* hemisphere, as compared with the corresponding portions of the right, the anterior two-thirds of the parietal lobe suffered much more, the superior surfaces of the frontal gyri suffered a little more, and the external surface of the temporo-sphenoidal considerably less than the corresponding parts on the right side. The left third frontal gyrus was quite free. Naming

them in the direct order of its severity, the following were the lobes most affected by this change—left parietal ; right parietal ; right temporo-sphenoidal ; left temporo-sphenoidal; left frontal ; and right frontal.

The lateral ventricles, especially the right, were large ; their ependyma was firm. The right basal ganglia were pale, the corpus striatum being also somewhat wasted. The pons and medulla oblongata were rather firm, and their meninges thickened. The spinal cord was somewhat softened in its upper portions, and the left posterior grey cornu was atrophied in the dorsal region.

Under the microscope. Examined in the *fresh* state, the grey cortex of the right first frontal convolution exhibited much neuroglia ; hyperplasia of the neurogliar nuclei and of the vascular, with hypertrophy also of the latter ; some thickening and irregularity of certain vessel walls ; many small, round, and oval cells ; small size of pyramidal nerve-cells. In the left first frontal convolution the nerve-cells and vessels were more normal. In the fresh cord the multiplication of nuclei and the condition of the cells were much the same. *Prepared sections* of the right first frontal gyrus took the carmine stain badly, and showed unstained patches of a ground-glass appearance ; the vessel-walls were thick ; the nerve-cells atrophied, some granular, some of ground-glass appearance, some undergoing disintegration ; round and oval nucleated cells ; scattered dark pigment grains. The left first frontal gyrus took the staining better than the right ; its changes were the same as those in the right, but were much less marked. Of the right third frontal the same may be said, except that it more nearly approached the condition of the right first frontal. A number of unstained sclerotic patches were seen here also. The left third frontal resembled the right, except that the nerve-cells were more granular. The spinal cord did not stain very well ; the walls of some of its vessels were thickened, and their nuclei hyperplastic ; there was also increase of connective tissue, aggregations of granules, a few compound granule corpuscles, and numerous small round and oval cells containing either a nucleus or molecules.

Case XIX.—In this case were vivid auditory hallucinations ; no other hallucinations were noticed. Here the supposed auditory cortical centre was comparatively little affected, the visual suffered severely, and yet with vivid auditory hallucinations no visual hallucinations were observed ; if present at any time, they were kept in the background. The case, therefore, does not harmonize well with the special theory of localization.

The arachnoid over the superior surface of the brain was somewhat thickened, opalescent, and tough ; and there was convolutional wasting, mainly on the superior aspect of the cerebrum, as well as subarachnoid serosity. Interlobar adhesions were present. The pia-mater was hyperæmic. Adhesion and decortication were widely spread, and were especially seen on the superior and external surfaces

of the cerebrum. The four frontal convolutions and the ascending parietal, supra-marginal, and angular convolutions were those most markedly affected; the remaining portion of the parietal lobes was less involved; and the temporo-sphenoidal lobes were but little affected. The same adhesion and decortication also affected the cerebellum, the arachnoid tunic of which was opaque. The cerebral grey cortex was diminished in consistence. The white substance of the brain was also universally softened, and was the site of considerable hyperæmia. The lateral ventricles of the brain were large, and contained 1 oz. of serosity. The fornix was soft, almost diffluent; the corpora striata and optic thalami were soddened and softened; the pons Varolii was softened and of a pinkish hue; the posterior part, especially, of the medulla oblongata was softened and hyperæmic.

Case XX.—Auditory hallucinations were moderately well marked. Visual hallucinations also were evidenced.

There were interlobar adhesions at the base of the brain. The meningeal thickening, condensation, opacity, and œdema were mainly confined to the frontal and parietal lobes. The calvaria, dura-mater sinuses, and meningeal veins were all passively engorged, in part from the mode of death.

Adhesion and decortication were absent.

The grey cortical substance of the cerebrum was rather thin, the atrophy being quite evident in the anterior region; also somewhat increased in consistence, particularly in the frontal region, where it was also paler than elsewhere, and where its stratification was less marked. The white substance was moderately hyperæmic. The lateral ventricles were rather large, and their lining membrane was thick and opaque. The pons Varolii and medulla oblongata were of ordinary consistence, and were hyperæmic, especially about the floor of the fourth ventricle.

The case was not a favourable one for purposes of localization.

Case XXI.—A chronic case, in which from time to time were pronounced illusions of hearing, also hallucinations of hearing; the other hallucinations were those of touch; hypochondriacal (visceral, systemic, cœnæsthetic) sensations and delusions were prominent features of the case.

Chronic meningitis and pachymeningitis were found, particularly over the left side of the brain, the membranes being pale and much thickened. The brain was atrophied. The grey cortex of the cerebrum was pale, atrophied in front, and slightly firmer than normal, all of these conditions being slightly more on the left side, and the atrophy particularly affecting the frontal tips. The white cerebral substance was pale, slightly too firm in the frontal regions, especially in the left. The left hemisphere was of less weight than the right.

Adhesion and decortication were only very slight and superficial. On the *right* hemisphere they occurred only on the marginal convolution, just behind the frontal tip. A doubtful spot was observed over

the middle of the outer surface of the first and second temporo-sphenoidal gyri. On the *left* hemisphere they were found on the third frontal, the anterior part of the second frontal, the median surface of the first frontal near its tip, and the lower end of the ascending frontal.

The lateral ventricles contained $\frac{7}{8}$ oz. of serosity ; their ependyma was slightly granulation-strewn. Adhesions existed between the velum interpositum and the fornix above it, and the surface of the optic thalami below it. The basal ganglia were pale. The ependyma of the fourth ventricle was altered in the usual way, and in a moderate degree. The pons and medulla oblongata were somewhat pale, the posterior columns of the latter slightly indurated, as were also the posterior columns of the spinal cord. The olfactory tracts were partially wasted.

Here there was no very special implication of the supposed cortical auditory centres in adhesion, except slightly and doubtfully on the right side. The cerebral changes, however, were extensive.

Case XXII.—Vivid and long-continued auditory hallucinations ; visual hallucinations present, but less marked than the auditory.

Arachnoid opaque and tough over the median, superior, and external cerebral surfaces, especially over the parietal lobe and the posterior zone of the frontal lobe, and slightly so on the anterior two-thirds of the inferior cerebral surface ; also, corresponding pia-matral œdema, which even extended slightly to the occipital lobe. The pia-mater was thickened. The arachnoidal opacity and thickening were less decided over the external surface of the temporo-sphenoidal than over the frontal lobe, but in the former locality the vessels of the pia-mater were hyperæmic.

Adhesion and decortication affected the following parts of the brain: —In the *right* hemisphere all the frontal convolutions were considerably affected, but of these the ascending frontal least, its middle third escaping. All the parietal gyri were affected, especially the supra-marginal lobule, and the anterior part of the postero-parietal lobule. The angular gyrus was moderately implicated. The temporo-sphenoidal gyri were slightly affected, the first especially suffering of these ; the third temporo-sphenoidal and inferior surface were considerably affected up to the subiculum cornu ammonis. Slight points of adhesion were scattered over the inferior occipital and occipito-temporal surfaces. On the internal surface the adhesions, scattered as far back as the occipital lobe, were principally on the paracentral lobule and along the peripheral border of the gyrus marginalis.

On the *left* hemisphere the adhesions were mainly on the first, second, and third frontal gyri, and on the temporo-sphenoidal, a few very slight spots only of adhesion being found on the other frontal, and on some of the parietal and occipital gyri. The external and inferior temporo-sphenoidal surfaces were affected as on the right side, and on the orbital surface only the first and second gyri. The

internal surface was affected similarly as in the right hemisphere, the adhesions here being also continuous with that over the postero-parietal lobule.

The cerebral grey cortex, somewhat wasted, showed many vessels, and on the right side was of slightly increased consistence, but was soft in the temporo-sphenoidal regions, especially the left. The posterior part of the left parietal grey matter was rather pale ; that of the occipital lobe was more reddish and injected, as was also that of the right parietal. The white substance was somewhat hyperæmic, and was softened in the temporo-sphenoidal lobes. Thick opaline ependyma of the lateral ventricles, which were large. Basal ganglia alike on the two sides, and of a faint lilac hue on section. Cerebellar meninges somewhat thickened, and slightly adherent in parts, at the under-surface and at borders of lateral lobes. Ependyma of fourth ventricle somewhat altered, and medulla oblongata slightly firm. Pons of ordinary appearance.

Microscopical.—Moderately well-marked microscopical changes were found in the vessels, nerve-cells, and nuclear interstitial elements, and about equally in the right gyrus uncinatus, right first temporo-sphenoidal, and left first temporo-sphenoidal convolutions ; also changes in the right and left postero-parietal lobules, doubtfully more marked in the former of these two.

Thus the supposed auditory cortical centres were decidedly affected on both sides in this case.

Case XXIII.—Auditory and visual hallucinations existed in this example.

The meninges were thickened and increased in consistence, especially on the superior and external surfaces. The pia-mater was œdematous, equally over the frontal and parietal lobes, and in a less degree over the temporo-sphenoidal and the anterior part of the occipital ; over the frontal lobes it was rather pale and of gelatiniform appearance. A lesser degree of the meningeal changes and œdema extended over the whole inferior surface of the cerebrum.

Adhesion and decortication were comparatively slight, were symmetrically disposed on the two cerebral hemispheres, and were mainly of the supra-marginal, angular, and first and second temporo-sphenoidal gyri. A few spots of the same existed on the inferior temporo-sphenoidal and the orbital surfaces. Also on the left frontal region, and here they were confined to its posterior zone, that is, to the ascending frontal gyrus and the ends of the frontal tiers abutting thereupon.

The cortical grey matter was somewhat pale, but exhibited many dilated vessels, and was of slightly increased consistence, but of lessened depth. The white matter was slightly increased in consistence. The lateral ventricles were large. The corpora striata were of slightly diminished consistence ; it was doubtful whether the left one was not slightly the smaller. Optic thalami of dull mottled lilac hue. Granulations on ependyma of fourth ventricle.

This case agrees well with the theory, the supposed auditory and visual cortical areas being the very parts most affected with adhesion.

Case XXIV.—Here the changes observed in the so-called cortical auditory centres were also so extremely extensive and severe over a large portion of the cerebrum as to nullify minute localization of the kind required. (For details see Case 5, under the heading of Visual Hallucinations.)

Case XXV.—Auditory hallucinations were vivid, and were often evinced. So were visual hallucinations, and full details of the post-mortem appearances having been already given under the heading of Visual Hallucinations, it is only necessary to remark in this place that the supposed cortical auditory centres suffered considerably in both hemispheres of the brain. The details appear under Case 6, *supra*.

Case XXVI.—The auditory hallucinations were not so highly pronounced as the visual in this case. Adhesion and decortication affected the first and second temporo-sphenoidal convolutions to a slight extent only, and that on the left side solely. Auditory hallucinations, however, were less marked than visual, and correspondingly the supposed auditory cortical centres were much less affected than the supposed visual cortical centres. Particulars are given under Case 7 of Visual Hallucinations.

Case XXVII.—Auditory and other hallucinations. In this case, while the second temporo-sphenoidal convolutions were slightly affected by adhesive changes, the first temporo sphenoidal were almost free therefrom. Hallucinations, however, were not clearly evinced for more than a moderate period of time in the course of the disease. A summary of the pathological appearances is given under Case 8, above.

Case XXVIII.—Auditory hallucinations as well as visual were very obvious for a somewhat prolonged period. Here the auditory cortical centres were not among the parts most obviously diseased, and were free from adhesion. The necroscopical records are referred to under Case 9.

Case XXIX.—Hallucinations of hearing and of all the other special senses were present. The supposed auditory cortical centres escaped the adhesive change; the pons Varolii and medulla oblongata were extremely diseased. A summary of the morbid anatomy has already been given with Case 10 of Visual Hallucinations.

Case XXX.—Vivid auditory hallucinations as well as visual existed here. The morbid changes were symmetrical in the two hemispheres. The so-called cortical auditory centres were affected only to a moderate extent and degree, and less than one would have anticipated on the theory now in question. Nevertheless the adhesion and decortication were very wide-spread, and the general encephalic changes were extremely pronounced, and these conditions would suffice to explain a functional disorder of almost any part of the brain. The case has already been described, when treating of visual hallucinations, as Case 1.

Case XXXI.—Besides the visual hallucinations already referred to in Case 3, there were most vivid auditory hallucinations. From the summary already given it may be seen that the first and second temporo-sphenoidal gyri were markedly diseased, and even slightly more so in the left than in the right hemisphere. So far as it goes, therefore, the case falls in with the theory.

Case XXXII.—Auditory hallucinations gave companionship to the visual in this case, the necropsy of which has been summarised when treating of the visual hallucinations under Case 4. Here the first and second temporo-sphenoidal convolutions were among the parts comparatively little diseased, the supero-external fronto-parietal regions being those principally affected.

In conclusion, and in recapitulation, it may be briefly stated—

That hallucinations and illusions are more frequent and important in general paralysis than is generally recognised.

That the percentages given in the foregoing papers as those in which hallucinations of the several senses exist in general paralysis are probably minimum percentages, and this for the reasons assigned therein.

That, contrary to what is usually believed, visual hallucinations occur with scarcely greater absolute frequency than auditory in general paralysis ; but

That in general-paralytic soldiers the visual hallucinations bear a considerably higher ratio to the auditory than they do in the other insane soldiers.

That in the latter, namely, in the soldiers with non-acute insanity, and exclusive of general paralysis, auditory hallucinations predominate in frequency over visual ; as they also do over the auditory hallucinations of general paralytics.

That in general characters the hallucinations of general paralysis are often of short duration, recurring, variable, non-systematized, numerous, absurd, crude, and, sometimes, disconnected, contradictory *inter se,* inobtrusive, and extremely pleasurable or painful.

That lesions of the cortical sensory centres of the cerebrum are concerned in an intimate way with the production of most of the hallucinations in general paralysis.

That in dealing with the hallucinations in general paralysis, in reference to cerebral localization, use may be made of the distribution of cerebro-meningeal adhesions and the cortical changes associated therewith.

That in cases of visual hallucination in general paralysis the angular gyrus is not affected in the marked manner one

would anticipate on the theory that it is the sole cortical visual centre; nor, in cases of auditory hallucinations, is the first temporo-sphenoidal, viewing it as the sole cortical auditory centre.

Thus the morbid anatomy of general paralysis fails to support the exclusive view that these gyri are, or contain, respectively the sole cortical centres of sight and hearing.

Taking the cases together, we find that the supra-marginal convolution is affected more than the angular in those with visual hallucinations, and the adhesions are often well marked on the postero-parietal lobule.

Also that the second temporo-sphenoidal gyrus seems to suffer more than the first in the cases with auditory hallucinations, taken collectively.

Mental Experts and Criminal Responsibility. By D. Hack Tuke, M.D., F.R.C.P.

I wish in the first instance to lay clearly down what are the objects to be attained in regard to alleged insanity in criminal cases; in the second place I shall speak of what is the course pursued in England to reach those ends, and point out its inadequacy and inconvenience; and, thirdly, I shall suggest certain modifications, or rather radical changes in our present system, which I submit will act beneficially in securing the objects I lay down as those we ought to have in view. I am not, of course, speaking here of the duties of the Expert; his *rôle* is much more limited in its range; but I am placing myself in the position of one who heartily desires to answer the question: Can the present method of ascertaining Criminal Responsibility in our Courts of Law be improved?

The first object I take to be to adopt the most scientific and therefore most efficient means of ascertaining the mental condition—the criminal responsibility—of the accused.

The second is to protect him from punishment if he is irresponsible.

The third is to protect society from the injury done by admitting the plea of insanity when the act committed is really criminal, thus relaxing the checks upon crime and failing to punish when punishment is due.

There is also a fourth and very important object, which

applies to those already found "not guilty on the ground of insanity," to avoid discharging them until mental health is restored, and, indeed, as long after that period as is deemed needful for the safety of the community.

Taking these objects in the order in which I have stated them, one would have thought that the first did not involve any proposition which would be disputed. It would have seemed self-evident that in order to ascertain the mental condition of the accused, we must employ scientific means, with a view to the result being made use of in court. Yet, strange to say, we find Lord Campbell giving expression to the following opinion: "Hardly any weight is to be given to the evidence of what are called scientific witnesses; they come with a bias in their minds to support the cause in which they are embarked" (Tracy Peer., 10 Cl. and Fin. 191). In direct contrast to such a position, I might cite certain words of Canning. They go, however, further than I am prepared to go. "Tell me," he says, "that a farmer thinks so and so about seed, that a painter says this or that is the best method of mixing his colours, that a physician holds such or such medicine to be the specific for a particular complaint—and as I neither can, nor need have, nor pretend to have, any power of judging from my own knowledge of agriculture, painting, or medicine, I am willing (provided nothing has come within my own experience to contradict them) to adopt implicitly the opinion of the farmer, the painter, or the physician" ("Nineteenth Century," January, 1880).

If, indeed, the evidence of scientific witnesses is what Lord Campbell describes it, and if nothing can be done to render science helpful, and indeed essential, in judicial investigations, then I am only wasting time in discussing the best means of ascertaining criminal responsibility in our Courts of Law, because my proposals are entirely based on the assumption that the evidence of men of science—be their department what it may—is of primary importance, and that our great object is to obtain it in the most effective way. And as regards Lord Campbell's dictum, I shall venture to interpret it to mean, not that science should be held to possess hardly any weight, but only science as now seen in the witness-box, "cribb'd, cabin'd, and confin'd" by legal conditions unfavourable to her powers, conditions as I shall show, as unnecessary as they are injurious, seeing they do not exist in some of the most civilized countries of the modern world. So far then from being disheartened by

Campbell's opinion, I am confirmed in the judgment that our present system works badly, and that it is time we should endeavour to rectify it.

Passing on to the second and third objects, I think no one will call in question that whatever plan we adopt, we must aim at protecting the criminal from punishment if irresponsible, on the one hand, and society from the evil of too readily admitting the plea of insanity on the other. Even Baron Bramwell, who entertains views on criminal responsibility which would necessitate the punishment and indeed the execution of a large number of the inmates of our Lunatic Asylums, admits there are cases in which punishment would be cruel. And as to protecting society, there is no occasion to insist upon that.

With regard to the fourth object, opinion will be equally agreed that when the accused is found not guilty on the plea of insanity, the greatest care must be exercised not to allow a dangerous lunatic to return to society. That this error may be committed is no imaginary possibility.

I now come to the second head of my paper, the course pursued in England in order to reach these ends, and the inadequacy and inconvenience thereof.

Suppose the case of a person apprehended and brought before a magistrate charged with a crime respecting which the question of insanity arises. The course to be pursued is not laid down or even mentioned in any one of our Statutes, and no reference is made to the subject in such works as Stowe's "Practice for Justices of the Peace." Mr. Flowers, the magistrate of the Bow Street Court, is unable to refer me to any law bearing on the course of procedure. The course actually pursued is this: If the case brought before the magistrate be one involving murder, manslaughter, or other serious crime, the prisoner is committed to trial whatever the state of his mind may be. No order, as a general rule, is made by the magistrate to ascertain what this is at that period—*the period nearest to the time of the commission of the deed.* The duty of the magistrate ends when the prosecutor and the various witnesses are bound over to appear at the Assizes or Quarter Sessions.

If however, while in gaol awaiting his trial, he were obviously insane, he might (as a remedial measure) be removed by order of the Secretary of State to an asylum, this order being based on a certificate signed by two medical men, employed by the justices, and also signed by two of

them, in accordance with the 27 and 28 Vict., cap. 29, s. 2, passed in 1864.

This comparatively recent Statute is, no doubt, a most valuable provision in case of indisputable insanity, but it does not provide for doubtful cases which require testing when brought before the magistrate. The same Act contains also a most important provision for prisoners under sentence of death, in which the justices or others may bring forward evidence before the Home Secretary in order to induce him to make inquiry into the prisoner's state of mind. But these do not touch the inquiry into the state of his mind in the first instance, the point on which I wish to lay especial stress; or, again, the magistrate might refer the case to the police surgeon, or send the prisoner to the workhouse, in which event the course subsequently taken would rest with the Union Medical Officer. In some instances the action taken is founded on the Statute which allows a dangerous lunatic at large to be taken up, and placed in an asylum, if two justices and a medical man sign the necessary legal documents (1 and 2 Vict., c. 14, s. 2).

Returning to the action of the magistrate, if the case brought before him is one in which he can act summarily, that is to say in minor cases of theft, &c., and in which something in the prisoner suggests insanity, he would, if a sensible magistrate, remand the case, calling the attention of the governor of the gaol to the prisoner's mental state, and if the prison doctor reported him insane, he would discharge him as respects the crime, and would deal with him in the ordinary way as a lunatic; but for this action in a case of crime there is no distinct law, and it too often happens that the magistrate is not sensible, and punishes the prisoner without instituting any inquiry. It would seem that when a magistrate has a prisoner brought before him whom he believes or suspects to be insane, and he takes action on that ground, that it is not in his criminal capacity, but only as a magistrate under the Lunacy Acts.

The course or courses pursued which I have described obtain in the London police courts. They are essentially the same, though different in a few particulars, in the provinces.

At Petty Sessions in the provinces the course taken depends upon the sitting magistrates on the advice their clerk may give them. Some remand for a medical examination, and if certified insane, hand the prisoner over to the

relieving officer to deal with as an ordinary lunatic; others convict without medical examination, and the prisoner comes under the notice of the gaol surgeon; others punish when a medical examination ought to have been had. Only a few weeks ago, in a locality where I was visiting, a man was brought up for being drunk and disorderly, and violently assaulting the police. The prisoner had an epileptic fit then and there, but he was sentenced to six months' imprisonment. The prisoner, whose fit had left him so weak that he was unable to stand, stated that he did not know he had assaulted the police, and that he was very sorry for having done so. He was not examined by any medical man, and was not remanded. The other day in Liverpool the County Bench did remand a man who had made a homicidal assault, upon evidence being given by a physician that he was insane; but a solicitor informs me that no law warrants such a departure from the function of the Bench in grave offences, and that a stipendiary magistrate would not have done anything but commit.

Having considered the position of an insane prisoner before the magistrate, let us now regard him before the judge and jury at the Assizes. The plea of insanity is set up. If the jury find him unable to plead on arraignment,* he is sent to Broadmoor until he recovers, or so long as he remains insane. If, on the other hand, he is considered fit to plead, one or more medical witnesses are called by the defence to establish his insanity. Probably counter-evidence is produced by the prosecution to show that the accused is of sound mind. The surgeon of the gaol, if called, is called by one or other side according to the opinion he holds. As is natural under the circumstances, counsel on both sides do all in their power to perplex the medical witness in cross-examination, and the subject is treated as if it were as easy of determination and of a reply—yes or no—without qualification, as the dimension of a wall, or the soundness of a piece of timber.

Under such conditions—Science converted into a partizan, and Medicine into an advocate—the question of the criminal responsibility of the prisoner is considered and is finally decided by the jury. Can, I ask, the present method of ascertaining criminal responsibility in our Courts of Law be improved? Is it not, as I have intimated, inadequate

* 39 and 40 Geo. III., cap. 94, s. 2.

and inconvenient? To recur to the prisoner when first apprehended and brought before the magistrate, is not the law inadequate in not providing for a careful examination of the accused by a competent physician as soon as possible after the commission of the deed? Would it not greatly assist the judgment formed at the trial to have him carefully observed by one or two mental physicians in the interval? Is it not inadequate and inconvenient that any examination that may be made *for the purposes of the trial* should depend upon the prisoner's friends or solicitor? Again, is it not inconvenient that an examination should be necessarily made in prison, unless, indeed, he has been found to be insane while a prisoner? Every superintendent of an asylum will agree that there are cases admitted under his care which for days and even weeks present doubtful features, and he is unable to make up his mind for a considerable period as to the patient's real condition. He sees him daily and oftener, has long conversations with him as well as short ones. He sees him when he is not aware of being observed. He obtains valuable information from the attendants and patients who are brought into contact with him by night as well as by day. Any one must see that such opportunities are denied to a physician called in by a solicitor to examine a prisoner in prison. It is true he may have several interviews, and no obstacles may be thrown intentionally in his way, but the opportunities for observation must be vastly superior in the asylum than in the prison.

Further, coming to the trial itself, is it not an inconvenient and unsatisfactory method of procedure for scientific witnesses to be called by the defence and prosecution instead of by the Court itself? Is it not to place science in a totally false position? Is not the result likely to be partizanship, however improper it may be that it should have this effect on men of science?

Is there not something in the very atmosphere of a law court (possibly sophisticated germs!) with which the scientific witness too often becomes contaminated?—the evil communications of the advocate corrupting the good manners of the physician! And apart from all this, are not oral evidence and a captious cross-examination little suited for the description of a subtle disease and the education of truth in regard to it?

Lastly, among the inconveniences attending our present mode of ascertaining criminal responsibility, I must note

what a chance it is that the accused has the advantage of a skilled medical examination. He may have half a dozen doctors, but they may not be specially versed in the disorders of the mind.

Need I add more weight to the statement I have made that the present law, or absence of law, is inadequate and inconvenient by proving that its actual working is by no means satisfactory?

I would here recall the fact that a great amount of time is wasted in the examination of a large number of medical witnesses when the report of two experts would occupy very much less time, that the value of the opinions thus procured is infinitely less than if obtained from men selected for the purpose, that the decisions arrived at by juries are not unfrequently highly unsatisfactory, that in some instances the work has to be done over again after the conviction, commonsense inducing the Secretary of State to do then what, under the Act 27 and 28 Vict., 29, s. 2, the Court ought to be empowered to do before.

It may be said that no injustice is likely to be done by sending a lunatic to prison, inasmuch as the gaol surgeon will look after the case, and if he is insane, will take steps for his removal to an asylum. But a case which occurred the other day shows that we cannot depend upon this officer pursuing the right course. A man with congenital mental weakness, and with a history of two attacks of insanity for which he had been confined in an asylum, and in regard to whose existing deficiency medical evidence was given, was found guilty of theft, and was sentenced to six months' imprisonment. He slept on a plank, and was put on low fare. He was obviously insane on quitting the prison, and was removed to an asylum within a week after his discharge, where he died. The superintendent of this asylum thus writes to me, "The fact is, the prison surgeon refused to consider the man insane, and was jealous of my being called in; it was a case of gaol *versus* asylum. The surgeon was simply ignorant." We cannot therefore altogether depend upon surgeons to our gaols if a mistake is made at the trial of the prisoner.

Not long ago an Italian, Schossa, committed a most extraordinary assault upon the priests officiating in a church. I express no opinion as to his insanity (though there is much which suggests a delusion), or the justness of the sentence of imprisonment for life which he received, and which would have been capital punishment had he happened to succeed in

his murderous designs. But I say that it is unsatisfactory that the law does not necessitate in such a case a definite course of investigation into the prisoner's mental condition by competent men. The magistrate did remand the prisoner for a week for some examination, an unusual course in a case in which he would not have been able to act summarily, but I do not know what examination he underwent. An Austrian official, now in England, observed to me, on reading the trial of Schossa in the paper, that it seemed to him very inefficient means had been taken to ascertain the mental condition of the accused, and that our tribunals have in this respect no character on the Continent.

So again in the case of Dodwell, who shot at the Master of the Rolls, how much confusion, controversy, blundering, and expense would have been saved had the proper examination been made by Drs. Maudsley and Blandford at or before the trial, instead of months after he had been at Broadmoor, and after public opinion had been aroused under the impression that a wrong had been done.

I might perhaps sum up the defects at present attending the proceedings both on the apprehension and in the trial of prisoners alleged to be insane, under the general term of uncertainty—the absence of a sufficiently systematised mode of action.

Having answered the question whether the present mode of ascertaining criminal responsibility admits of improvement, in the affirmative, I proceed to suggest certain improvements in our practice which would, I believe, remedy the evils of which I complain, at least as far as human imperfection admits of being perfected, only premising that the infliction of punishment must depend upon accountability, and accountability upon free-will, and free-will upon sanity. What we want to ascertain is not the mere knowledge of right and wrong, but whether the power to avoid doing wrong was sufficiently intact to involve responsibility.

In the first place, I think that the magistrate before whom a criminal case is brought should, if there is any question raised as to the prisoner's insanity, be obliged to order an examination of the prisoner, either by two mental experts or one expert and the gaol surgeon. The obvious advantage here is that we obtain the best opinion we can secure immediately after the crime has been committed.

These experts should have full power to cause the temporary removal of the accused to an asylum, so as to have

every opportunity for his examination, between his committal and his trial at the Assizes. If they regard him as insane, they should be employed to sign the certificate now required by the 27 and 28 Vict., c. 29, s. 2, when a prisoner in custody awaiting his trial is removed to an asylum.

At the trial, the jury should as at present decide whether the accused is in a condition to plead, after hearing the opinion of the experts. The Act 39 and 40 Geo. III., cap. 94, s. 2, enacts that a jury is to be impannelled for the purpose of trying the question of the prisoner's insanity, but does not say how they are to find this out.*

If judged unable to plead, the prisoner would be confined in the criminal asylum under the same conditions as now.

If considered able to plead, a full written report, drawn up by the experts, should be given in evidence.

If the Court wishes for any explanation of the report, the experts should be called into the witness-box. I am disposed to think that justice would be best secured by their being interrogated by the judge, any questions the jury or counsel may wish to ask being put through the judge also, but I do not believe it would be possible to introduce such a course ; so I do not propose it.

A very important question now arises, which is this. If, as I propose, the magistrate or the Court shall call in experts, is no liberty to be allowed to the counsel for the defence or the prosecution to call in medical witnesses who shall make an independent examination and be allowed to give their evidence as well as the experts ?

This, in truth, is the most difficult question which presents itself when the Court itself calls in experts. On the one hand, one of the objects of this plan is to get rid of the temptations to partizanship fostered by the present system, and the unfavourable field for scientific evidence to be found in the witness-box only. This object would be gained by restricting the evidence to the appointed experts. On the other hand, the objection may be made against this course that it would invest too much authority and power in the Court. Thus the prisoner would feel aggrieved if in the event of the official experts deciding that he was sane, he was not allowed to

* Archbold says, "If the jury find insanity, that will preclude the necessity of further proceedings, but if the prosecution does not bring proof of his state of mind, the judge will endeavour to ascertain it from the officers of the prison and from medical evidence, and, if necessary, postpone the trial. Reg. v. Davies, 6 Cox C.C., 326." P. 613, Ed. 1877.

bring forward a medical witness—perhaps his own medical attendant—in favour of his irresponsibility.

I do not think that this power can be taken away, but it would, in all probability, follow from the appointment of experts that very much less extraneous medical evidence would be given in Court. A great check would be put upon mere partisan and useless evidence.

Such are the main changes I should wish to see introduced, the two leading ones being the calling in of experts by the magistrate, who would report in writing to the Court at the trial, and the power to remove any one charged with crime to an asylum, *not because he is insane, but to ascertain whether he is so.* There are, of course, many questions of detail which present themselves, such as the selection of experts, whether they should be permanently appointed to the office or only called in in each case according to the judgment of the magistrate, and again, what course should be pursued when the experts do not arrive at the same judgment, but these points may be left until we are agreed upon the principles.

In the foregoing suggestions I referred only to the serious class of crimes which the magistrate is obliged, if the evidence warrants it, to send forward to trial.

In regard to those minor infractions of the law, in which the magistrate can decide, if in them the question of insanity suggests itself, it might seem unnecessary to pursue the course suggested. And yet when one considers that some of these minor cases are examples of the incipient stage of the gravest forms of insanity, and when one thinks of so painful a case as that I have referred to as occurring last week before a magistrate, one feels the importance of a skilled physician being consulted even here.

I am quite willing to admit that practically the present facilities for ensuring skilled examination do sometimes work well. Thus, for instance, I will take the case of any person committed to trial and imprisoned at Warwick. If symptoms indicating insanity were to arise, the gaol surgeon would communicate with the visiting magistrate, and they would call to their assistance the superintendent of the County Asylum, Dr. Parsey. This physician writes to me as follows :—"It has been the custom for many years to obtain my opinion and certificate as a supposed expert in addition to (and in some doubtful case as a sort of guide to) that of the gaol surgeon. When called to see a prisoner in gaol, it has almost invariably been by the visiting magistrates, who allow

me free access to the prisoner, and as many visits as I may think necessary. I remember only one occasion in which I was called in by the prisoner's attorney. If the Assizes or Sessions are not near at hand, and the offence is not a very grave one, the prisoner is removed (if insane), under a Secretary of State's warrant, to the County Asylum, and the trial deferred till the prisoner's recovery and return to gaol. When the time for trial is near, or the offence a very grave one, I have continued to see the prisoner occasionally in gaol, and have given evidence at the trial."

This is no doubt most satisfactory. There happens to be an excellent expert near Warwick; there happen to be visiting magistrates who have the good sense to employ him; and the gaol surgeon, it seems, happens to be a man who is alive to the indications of insanity, and recognises the importance of promptly inquiring into them. The law, however, under which action is taken does not require that the medical man called in shall be familiar with insanity, only that he be "duly qualified," and it does not require that the physician called in by the visiting magistrates should be prepared to give evidence for the Court at the Assizes, and draw up a written report. Nor again does it permit the removal of the prisoner to an asylum for the purpose of more convenient inspection by the expert. There is, however, so much that is good in this Act that it might well form the basis for future legislation. I think some indication should be given as to the action not only of the visiting magistrates to the prison, but of the magistrate or magistrates before whom the case is in the first instance brought, whether at the police courts or the petty sessions.

In another letter received from Dr. Parsey he says: "You ask me whom I represent at a trial when asked to give evidence on the mental condition of a prisoner at the Warwick assizes or sessions. I do not know that I represent anybody, and I get the munificent fee of one guinea, I think, through the magistrates' clerk by the judge's order. My opinion is mentioned by the gaol authorities to the counsel on either side, and the one that wants my evidence gets me subpœnaed, and a fixture has generally been made for the trial. I take it that it is merely from my being personally known to many of the gaol committee that the habit has sprung up here of asking my advice, a state of things very irregular and unsatisfactory from a legal point of view, and I quite

agree with you that there is a great want of definite legal enactments in such matters."

If it be said that the propositions contained in this paper are unpractical, I would reply that very similar, though more stringent, regulations have been in operation for long in Austria, Germany, and France, and for some time in Maine, in a more decided form, indeed, than I have advanced them. What can be more sensible than the following law in Austria, extracted from the criminal code :—

"If doubts exist whether the accused possesses the use of his reason, or whether he suffers from an affection of the mind by which his accountability may be lost, then must an inquiry into the state of his intellect and emotions by means of two physicians be always ordered. These have to make their report of the result of their observations. They have to put together all the facts influencing their judgment of the intellectual and emotional condition of the accused. They must examine them according to their importance, both separately and when taken together, and if they consider that there exists a derangement of the mind, they must determine the nature of the disease, the species, and the amount of it, and must ground their opinion both on the basis of the written acts and their own observation as to the influence the disease may have exercised, and yet exercises on the imagination, impulses, and acts of the accused, and whether, and in what degree, the disturbed state of mind has existed at the period when the crime was committed."

Had time allowed, I should like to have cited various other excellently well conceived laws from the Austrian code, and I must say their precision contrasts very strikingly with our own statutes.

In France, again, where I have taken some pains to ascertain the practice, I find that the law recognises the right of the *juge d'instruction* (or magistrate) to enlighten himself by obtaining the opinion of men engaged in the practice of mental medicine whenever he feels in doubt. The Code of Civil Procedure, part 1, book ii., chapter xiv., enacts the mode of nominating experts. The principal points are these: When the magistrate perceives, during the examination, that the person accused of a crime does not enjoy the full measure of his intelligence, he suspends his examination, and makes an order by virtue of which one, two, or three experts are requested to examine the accused. He may also have been induced to take this course in consequence of the action of

the friends of the prisoner, for after the crime has been committed, his family may say, "He was insane. Here is the proof. His medical attendant has seen him, and attested in a certificate which we place before you that such is the fact."

Now the magistrate never refuses this demand, only of course he has the appointment of the physicians who are to make the examination. These experts take an oath, and the particulars of the crime and the prisoner's history as elicited by the magistrate are communicated to them if they desire them. They then examine the accused, either at his own house if he is provisionally at liberty, or at their own house, or in the prison if he is detained there. The visits of the experts are made freely, and without witnesses, just as often as they see fit. The governor of the prison conforms to their wishes, and causes the prisoner to be specially inspected by the gaolers if it is desired. In fact, the experts have the fullest power to ensure a thoroughly satisfactory examination in a private house or a prison. Moreover—that which is specially important—if notwithstanding they are not able to make up their minds, as more particularly happens in cases of simulation, it is not forbidden to place the prisoner provisionally in a lunatic asylum, in order that he may be examined there with still more care and under constant medical supervision. The experts visit him as often as they like, and when they have arrived at a conclusion, they report to the magistrate. If their opinion supports the view that the prisoner is insane, the magistrate, if, as is likely to happen, but not as a matter of course, he accepts their verdict as final, issues an order of "*non lieu*," or no jurisdiction. The affair, so far as the magistrate is concerned, is at an end, and the prisoner, now a patient, becomes an inmate of a lunatic asylum. He is no longer in the hands of the law; the authorities of the asylum receive him. He is now regarded as irresponsible; he is "not guilty" on the ground of insanity. He is a patient who will be treated like others, and he may be restored to liberty, without further control, whenever the superintendent of the asylum thinks proper. Instead of being a "Queen's pleasure man," as with us, he is the superintendent's pleasure man.

I am not surprised to find that the French physicians are of opinion that the facility of discharge is too great, and that the law in this respect admits of amendment. It too

often happens in consequence that dangerous lunatics go out into society, and, being at liberty again, commit some fresh crime.

Suppose now that instead of the experts appointed by the magistrate arriving at the conclusion that the accused is insane, they report that he is of sound mind; if the inquiry has been instituted at the instance of the friends of the prisoner, there is a disagreement between the certificates that have been given by the family physicians and the experts' report. In this case, the magistrate orders what is called an *expertise* — other experts who are charged with the duty of a fresh examination of the prisoner. If these experts, to whom of course are accorded the same facilities for observing him as to their predecessors, decide that he is insane, the magistrate would doubtless adopt their opinion, and the accused would be sent to an asylum.

But if the new experts decide that he is responsible, the magistrate sends the case to the next assizes; he commits him for trial. There the jury pronounce their verdict, and he is acquitted or condemned accordingly. There may have been conflicting arguments as to the prisoner's insanity to this extent—that on the one hand there is the report of the experts denying it, and on the other the opinion of the physician or physicians employed by the family maintaining it. The President of the Court does not however permit the intervention during the trial of any other physicians besides the experts previously nominated. It is only the counsel for the prisoner who may speak as the mouthpiece of his physician, and he, it is obvious, has not the authority or the knowledge sufficient to present the medical aspect of the case fully. In this particular again the French physicians think there might probably be a change made in their law with advantage. They think the opinion of the experts themselves might be a little more controlled. At the same time, they have no wish to see the witness-box thrown open to an indefinite number of medical witnesses *pro* and *con*. I think the course I have proposed possesses the merits and avoids the alleged disadvantages of the French practice.

If the President of the Court feels any doubt as to the man's sanity, notwithstanding the opinion of the experts, he expresses it to the jury, and has the right to adjourn the trial to the next assizes, in order to appoint still other experts to examine the prisoner's state of mind. The accused is sent

back to prison, and is at the disposition of the new experts until they have made their report.

In concluding this description of the French law, I may add that the French physicians, while allowing that some improvements might be introduced, regard the general course of procedure as excellent. One cannot but be struck with the pains taken by the Legislature to avoid a hasty judgment; and when I compare this with our own practice, I am inclined to think that "they manage these things better in France." The English think it better, if they call in experts at all, to do so *after* the trial; the French *before*.

In conclusion, I wish to anticipate an objection which may possibly be made to the proposal to rely mainly upon written evidence on the part of the experts, namely, that it is merely in order to shield them from fair cross-examination. I provide, however, for any question being asked by or through the judge, and, if it must be, by counsel. Hence there would be the same opportunity as now for the examination of the medical witness in addition to his written report. I wish to secure a calm statement in writing in the first instance, but not to avoid a fair questioning afterwards—judicial, not captious; and I bring forward this as well as the other proposals, as putting in a claim for science before our tribunals, in the interests of humanity.*

CLINICAL NOTES AND CASES.

Notes of a Case—Mania followed by Hyperæsthesia and Osteomalacia. Singular family tendency to excessive constipation and self-mutilation. By James C. Howden, Montrose Royal Asylum.†

J. C., a mason's wife, æt. 26. First admitted to the Montrose Asylum 6th March, 1855, labouring under acute mania. No special cause alleged, except a feeble constitution inherited from a mother mentally and physically weak. Had been ill for some days before admission. Imagined that God ordered her to mutilate herself.

* This paper was read at a Quarterly Meeting of the Medico-Psychological Association, in London. For discussion upon it, see "Journal of Mental Science," vol. xxvi, p. 126. Shortly afterwards Dr. Chapin, of the Willard Asylum, N.Y., read a paper before the American Association on "Experts and Expert Testimony," which led to an interesting debate.

† Read at the Edinburgh Quarterly Meeting of the Medico-Psychological Association, November, 1881.

Attempted to pull out her tongue, and on being restrained, she pushed it out of her mouth, and suddenly clenching her teeth, bit a large portion off.

She had a brother in the asylum, who was admitted on the 10th November, 1854, at the age of 22. He presented symptoms similar to his sister, especially in the tendency to self-mutilation, having gouged out one of his eyes.

J. C. was described by her friends as having always been weakly and unfit for much exertion. She had had two children, but could only nurse them for a short time, and after the birth of each had to keep her bed for three months. She recovered, and was discharged on 2nd January, 1857. From this date she remained at home till 30th December, 1867, when she was readmitted. In the interval she had two children, and after the birth of each made slow recoveries.

On this second attack the records of her condition are more complete. Her height is stated 5ft. 4in.; weight 164lbs. She was stout and healthy-like. Pupils somewhat dilated. On admission she was maniacal and suicidal. Her delusions were of a religious character. She thought God had ordered her to burn herself in order to purify her soul, which would then appear in heaven of pure gold.

She refused food, stating that it was unclean, and that she was forbidden by God to eat it. She also stripped herself of her clothing, as He had commanded her to be naked. She made persistent attempts to tear out her tongue. For two days after admission she took no food, and her bowels were not moved. She got castor-oil, which did not operate, and it was only after repeated and copious enemata that a great accumulation of impacted fæces was removed from the rectum. She now took a little food, but her stomach was very irritable, and she frequently vomited.

January 8th, 1868.—Digestive system still in an unsatisfactory state; bowels costive, stomach irritable. Takes her food better.

On 13th January she is reported better, mentally and bodily. From this date she gradually improved, and was discharged recovered on 27th March.

On 24th August of the same year she was readmitted. She seemed in good bodily condition, but her stomach and bowels were disordered as before. She vomited everything she took, and her rectum was impacted with fæces. Her urine was slightly albuminous. She had her old delusions that the food was unclean, the flesh being of animals which God had forbidden her to eat or touch. God had also ordered her to tear out her tongue, and to destroy herself. She was very restless and excited. She had several wounds and bruises on her arms, the result of attempts to injure herself. The third night after admission she pushed her hand into her vagina, which she lacerated severely, producing profuse hæmorrhage. On the evening of the 28th she was calm, and took her tea of her own accord. When she went to bed she slept till 12 o'clock, when the attendant noticed her lying

on her face, and discovered that she was gouging her eyes out. Both eyes were much injured; the left one being pushed almost completely out of its socket. (The sight of this eye was permanently destroyed.)

She continued after this very excited for some time, and showed incessant tendency to self-mutilation, especially to have her tongue torn out.

On 12th September she is reported as quiet, taking her food well, and working a little.

In the summer of 1869 she had a slight attack of pleurisy, from which she recovered to a certain extent, though her health was never good afterwards.

In February, 1870, she is stated to retain delusions similar to those she had on admission.

On 2nd April, 1872, it is reported that she lies constantly in bed complaining of pain in different parts of her body. She cries out when any one touches her. From this date to her death, in February, 1877, she lay constantly in bed on her back. Hyperæsthesia was very remarkable. The slightest touch on any part of her trunk or limbs made her wince, and she said it gave her great pain. The mere mention of getting out of bed put her in a state of great agitation. When she had to be moved for the purpose of changing her clothes she cried out with pain, and though the attendant took the greatest care not to hurt her, she often complained of being injured on these occasions.

For a year before her death she suffered from frequent bronchitic and asthmatical attacks, and it was one of these that carried her off on 10th February, 1877.

The *post-mortem* examination was made on 12th February, at noon. Temperature of room, 48 degrees.

Nothing abnormal was detected in the head, except that the substance of the cerebellum was unusually soft and pulpy. The calvarium was thin, but all the bones of the skull were normal in consistence.

There was a considerable amount of fluid in both pleural cavities. The right lung was extensively adherent. Both lungs were flabby, œdematous, and non-crepitant; the right contained some tubercular deposit in the apex. The heart was loaded with fat externally. The muscular substance was pale and fatty-like. (On microscopic examination the muscular substance of the heart was found to be in a state of fatty degeneration.) The valves were normal.

The liver was fatty, and the gall-bladder packed with angular gall-stones. Spleen large, but normal in structure.

The kidneys, which were with difficulty removed from being deeply imbedded in fat, presented a most singular appearance, and in shape more resembled the pancreas; but indeed neither of them could be said to have had any definite form. The left was much smaller than the right, the respective weights being $3\frac{1}{2}$oz. and $5\frac{1}{4}$oz. (On microscopic examination the kidneys were found to be fatty.)

The uterus was large, and somewhat misshapen. There was a great quantity of fat beneath the skin and around the abdominal organs.

When examining the thorax it was observed that the ribs were almost destitute of earthy matter. They were pliant, and after bending to a certain degree, they snapped like a piece of thin cork. The fifth, sixth, seventh, eighth, and ninth ribs on the left side were bent at a double angle just as if they had been folded. This position was permanent, and there was no evidence whatever of fracture. The bones of the limbs were next examined, and it was found that the knife could be pushed easily through them. The long bones of both legs and arms broke across with ease. The bones of the spine and pelvis were found to be in the same state of softness, cutting as easily as cheese.

Weights of Organs.

Encephalon	$44\frac{1}{2}$	oz.
Cerebellum, &c....	$5\frac{3}{4}$	,,
Heart	$11\frac{1}{2}$	,,
Right lung	$15\frac{3}{4}$	,,
Left ditto	$11\frac{1}{2}$	,,
Liver	$41\frac{3}{4}$	,,
Spleen	$8\frac{3}{4}$	,,
Right kidney	$5\frac{1}{4}$	,,
Left ditto	$3\frac{1}{2}$	,,

The family history of this case is of interest. The tendency to constipation was always marked during the maniacal attacks. The same condition existed in the brother's case, and he died from ulceration of the stomach. A younger sister, who was admitted into the asylum in September, 1874, had it to a still more marked degree. During four and a half years her bowels never acted except after the administration of copious enemata. In May, 1879, she had a severe attack of pneumonia, from which she made a good recovery, and singularly enough since then her bowels have acted quite naturally.

The period of life at which insanity manifested itself in the three cases was—A. C., æt. 22; M. C., æt. 24; J. C., æt. 26. The tendency to self-mutilation has not yet shown itself in M. C., but it is remarkable that when J. C. gouged out her eyes in 1868 she was not aware that her brother A. C. did the same thing in 1854.

The mother was placed in the asylum in February, 1881, at the age of 78. She is demented, and has been epileptic for 12 years. After the fits she becomes excited. She has

no tendency to constipation. The father is a man of ordinary intelligence, and has enjoyed good health, though he has always been intemperate.

The osteomalacia in J. C. probably commenced shortly after the attack of pleurisy in 1869; at all events, the symptoms were well marked in 1872. Although the pain and hyperæsthesia were remarkable, the existence of mollities ossium was not detected or suspected during life, and as she lay constantly in bed, there was no deformity of the limbs or trunk.

Extreme wasting of the fatty tissue has been generally observed in osteomalacia. In this case, however, the deposit of fat in all parts of the body was quite unusual. It will be noted that the only part of the osseous system which did not present degeneration was the skull.

The subjoined table given by Erichsen shows the relative frequency of softening in the various bones as observed in 131 cases:—

	85 Child-bearing Women.	46 other Cases.
Pelvis	96 per cent.	87 per cent.
Spinal column	54 „	87 „
Chest	31 „	80 „
Upper limb	12 „	62 „
Lower limb	17 „	78 „
Head	8 „	52 „

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*Case of Artificial Feeding, with Suggestions for Apparatus.**

By Henry Sutherland, M.D., Lecturer on Insanity, &c., at the Westminster Hospital, Visiting Physician to Blacklands House and Otto House Asylums.

The patient was fed 148 times, with both the mouth and nasal tube, from the 20th of April, 1881, till the 2nd of November, 1881, a period of six months.

Mr. J. B., æt. 30, admitted to Blacklands House Asylum, on the 29th of March, 1881.

History.—No hereditary tendencies. First attack. (?)

Form.—Melancholia with suspicion, alternating with stages of dementia.

Stout and very strong but pale from refusal of food.

* Read at the Quarterly Meeting of the Association at Bethlem Hospital, Jan. 31, 1882.

Delusions.—That his mother has tried to poison him. That he is watched. That he is attacked by a mob. That he can smell people being boiled.

Chest healthy. Bowels confined. Appetite bad. Pulse 110, weak. Urine loaded with phosphates. No bruises. Nails bitten to the quick.

Answers questions reluctantly. Sometimes refuses to speak at all. Says he wants to walk round the clubs instead of going to bed. Sleeps badly.

April 4th.—Five days after admission. Fed by myself with the mouth tube and gruel, for first time since admission, at midday, but made an excellent supper that night.

May 6th.—Attempted suicide by strangling himself with his sheet. Ordered thick rug and strong suit.

20th.—Another attempt by biting through the skin over the radial artery. Is closely watched day and night.

23rd.—Refuses to pass water. Catheter passed. Fed twice with tube. Refuses to allow bowels to act. Injection. In fact, attacked at all orifices.

May 28th.—Fed with nasal tube, the resistance to the mouth tube being so great as to endanger the patient's life.

Catheter, also injection.

July 8th.—Persuaded to take food by allowing him to steal it, as he supposed, from another patient. Acts always in contrary direction to orders, like a pig pulled by tail. Told not to go to bed, he goes at once; not to put out tongue, puts it out at once; not to go in garden, goes at once; not to pass water, and he does so at once, and so on.

Aug. 3rd.—New delusions, but clearer in mind.

Passed fæces and water on floor of padded room. Filthy in his habits. Masturbates.

Oct. 29th.—Tried to strangle himself with his braces.

Nov. 6th.—Removed to Bethlem, not improved.

I am indebted to my friend and colleague Mr. E. T. Hall for the above notes. The aspect of the case varied much day by day, the patient sometimes appearing to be in the lowest state of dementia, at others clearing up and enjoying a game at billiards, and conversing freely with those around him.

He had the strongest jaw I ever encountered in a case of artificial feeding. I used my own gag, made by Messrs. Maw, of Aldersgate Street, which is like the ordinary screw gag for the mouth, but has the prongs turned, the one up and the other down, so as to hook round the gums, thus preventing the gag coming out of the mouth should the patient twist his head round during the process of feeding. This form of prong is also shorter than are those of the gag

generally used, so that the ends of the prongs do not project and stand across the entrance to the œsophagus, as is too often the case with the ordinary gag.

My fingers were sometimes quite stiff and sore from the efforts to open the patient's mouth.

He soon, moreover, began to learn and put in practice all sorts of artifices to make the feeding process as difficult and disagreeable as possible. He would bellow like a bull at each breath as the tube was being passed, which of course made me think I was hurting him. It was merely done, however, to annoy. He had the strongest and most muscular tongue I ever had to overcome by the tube. He could twist it in such a manner as to make the tube go upwards, sideways or into the larynx, or any way but the right one.

The most troublesome symptom to overcome was an excess of greasy saliva which he appeared to be able to produce at will from all the glands of the mouth. This secretion was so copious that if I pressed the tube with my forefinger on the tongue, it would slip round and round, from right to left, and I was unable to guide it into the œsophagus. The only method on these occasions was to withdraw the tube and scoop out as much as possible of the saliva from the mouth with a towel, and then recommence the feeding process.

I purpose applying to some instrument maker shortly for a tube which I intend to be made flat ; that is to say, it is to have the section oval instead of round, about the same size and shape as the forefinger of a man. This, I believe, would lie flat on the tongue, and be less liable to slip than a tube the section of which is a circle.

On some occasions the tube passed more easily than on others. Mr. Hall found that this was frequently due to the position of the patient's head. If the head is bent forward whilst the tube is being passed, it will go down more easily. But again, if the head is too forward, then the food is poured into the funnel, and when it is being swallowed the patient can all the more easily bring it up. For this patient had the power of vomiting partially at will, and although the best part of the food generally kept down, I never remember feeding him without a certain amount of sickness following the injection of the fluid. Less vomiting occurred with the nasal than with the mouth tube.

Being somewhat tired of the constant battle which ensued whenever the patient was fed by the mouth, and being nearly

stunned by the noise the patient made during my endeavours to preserve his life, I resolved to try the nasal tube.

I used a long piece of catheter tubing, about quarter of an inch in diameter, sometimes armed with a wooden tip, sometimes not. This tube was about 20 inches in length, and had a mark on it 14 inches from the end passed down the nose to show me when to stop. The other end had the indiarubber piece of tubing connected with a Higginson's syringe attached to it. And the other tube from the bulb of the syringe was placed in the jug of liquid food. This apparatus was arranged for me by Messrs. Weiss.

No difficulty was at first entertained in passing the tube, but later the tube became more limp, as the weather was then extremely hot, and the patient also became more clever, so that more than once I caught him passing his tongue back, bringing the tube from the posterior nares with the tongue to between the teeth, and had it not been for my being constantly on the look-out for this old trick, the tube would have been bitten off, and a piece of it left in the œsophagus.

The lesson to be learned from this was, that nasal tubes are but perishable, and that if we are to use them, they must be constantly renewed. They may be immersed in cold water for a short time during the very hot weather, but are best kept on a cooling-dish, dry, in a cold cellar. But of course they must not be too hard, which may result from overcooling. They should always be well oiled before use.

I am indebted, as I said before, to Mr. Hall, superintendent of my asylum, for his careful notes on what I may fairly call a most interesting, although most trying case.

Two Cases of Insanity associated with Chorea.—By Joseph Wiglesworth, M.D. Lond., Assist. Med. Officer Rainhill Asylum, Lancashire.

The following two cases of so-called "Rheumatic Insanity" have recently been under observation in Rainhill Asylum, and I am indebted to Dr. Rogers, under whose care the patients were, for permission to publish an account of them.

Mary H., æt. 21 years. Married. Admitted Dec. 29, 1880. There was nothing of importance in the family history: her parents were living, and also five brothers; a sister had died young. She herself had been married three years, had had one child, and one miscarriage about

four months before commencement of present illness; had always enjoyed good health and never had any mental affection. Four weeks before admission was laid up with what appeared from the description to be subacute rheumatism, and her mental disturbance was said to have commenced about the same time. She clearly had hallucinations of sight, for "she saw a lot of money on the wall," and counted it; she was more or less restless all the time, and three or four days before admission got very excited, screaming and shouting; the choreiform movements commenced about a week before admission, and were confined to right arm and leg.

On admission, she was noted to be somewhat below medium height, fairly nourished, pupils dilated, active to light, temperature 100°·3. Tongue somewhat dry, slightly furred. Respiratory sounds, normal. Heart: no increase in area of dulness; short systolic bruit at apex, heard also at base; second sound clear. Pulse 120. No albumen in urine. Right upper and lower extremities—and these only—violently agitated with typical choreiform movements; right angle of mouth occasionally drawn up a little; tongue protruded with a slight jerk, but straight without tremor. No redness or swelling at joints. Mental condition was one of mild mania; she was restless, and kept talking to herself incoherently, but in a quiet sort of way. When questioned she gave her name and former residence correctly, but these were about the only questions she could be got to answer rationally, and she rambled off almost immediately to some subject wholly irrelevant. She had distinct illusions of touch, thinking erroneously that her clothes were wet. Was restless night of admission, and on the following day (30th) was ordered Hydr. chloral, grs. xv., 4 hor. sd. Continued restless, but did not talk much. On Jan. 1st there was redness and swelling of some of the small joints of hands and feet, and also of left elbow; choreiform movements less marked; bowels freely relieved after medicine; tongue dry; lips and teeth coated with sordes; had taken liquid nourishment fairly well. Chloral discontinued. Sod. salicyl. grs., xv., 4 hor. sd. The joint symptoms soon subsided, and the choreiform movements gradually got less, so that by Jan. 7th they had almost completely disappeared. She was sleeping better, and her mental condition had also improved; talked very little, and answered questions decidedly more rationally. On the 9th she was however worse; was more restless both by night and day, the movements were more marked, and on the 10th these, which had hitherto been confined to the right side, spread to the left. On the 11th she was much agitated, and the illusions of touch became prominent again; she took off her flannel night-dress, and threw it into the fire, saying that there were vermin on it. Chloral recommenced, grs. xv, t. d.

On the 12th, in addition to the illusions of touch, the sense of sight was similarly affected—thought spots of dust on the wall were vermin; her sensation of touch, however, as tested, appeared normal; she seemed also to have illusions of taste, for she said there was poison

in her medicine and food. By the 16th she was again better, the chorea being much less marked, but the joints of her upper extremities had again become painful. Systolic bruit all over cardiac area. Chloral discontinued; sod. salicyl. recommenced. By the 19th had lost all pains in the joints, and was taking food better; the choreiform movements kept rather variable, but she continued to improve both mentally and physically. By the 27th was able to get up; was sleeping well and taking food well; weight, 114lbs. Had a decidedly fatuous expression; answered questions slowly, though more rationally; was disposed to be pettish, and frequently asked to go home. On the 28th she surprised her attendants by stating correctly the names of three or four of her fellow-patients, which names she was not known to be acquainted with, nor did she appear to have taken sufficient notice of surrounding things to ascertain them; she usually sat very quiet, and if she looked about her at all, did so in a dull, listless sort of way. On Feb. 4th, though sitting quiet and talking very little, appeared to be paying much more attention to things around her; answered simple questions pretty rationally, but was slow over her replies; usually pretty tractable, though sometimes perverse; had not exhibited any illusions of touch for at least a week; senses of taste and smell tested, and appeared normal. Temperature had now been normal for three days; the highest recorded was on the morning of Jan. 1st, when it reached 101°·6; since then it had described a rather irregular curve, fluctuating between 98° and 100°·6, but for many days did not exceed 99°. Pulse had ranged from 120° to 70°, sometimes irregular. 13th, Choreiform movements continue slightly; mental coudition improves, but slowly; takes notice of her surroundings, and asks numerous questions about her fellow-patients; occasionally laughs pertinently at remarks made in her hearing; is easily upset over trifles, and begins to cry; still very slow at answering questions, and it is sometimes difficult to get her to speak at all. Temperature keeps normal.

Is taking Ferr: et Am. Cit., grs. x. t. d.

April 7th.—Keeps quiet, and does a little work in the ward. The choreiform movements have now for the most part ceased, but are occasionally to be observed. Has a decided look of hebetude, and appears nervous when spoken to; has much difficulty in speaking; to superficial examination she appears decidedly demented, but it is obvious, on careful questioning, that she possesses considerable intelligence, and her defective speech appears to be due to a want of coordination of the muscles of articulation; when asked a question she wriggles her head, and appears to stumble over the answer, which, even if a short one, is usually clipped in two, the two portions of it falling out accidentally, as it were, in a half-whisper; sometimes she appears clearly to comprehend what reply she ought to make to a question, but cannot give it—if a wrong answer is suggested, she immediately dissents from it. Takes an interest in what is going on

around her, and laughs pertinently if anything amusing happens in the ward. Memory appears very good for recent events, but has no recollection of coming here, nor of things that happened soon after her admission. Has considerable difficulty in protruding tongue, which she can seldom do when told to do so, though it can be seen to roll about on floor of mouth. General health good, has gained flesh; weight, 123lbs.

June 18th.—During last few days speech has considerably improved; can now say short sentences pretty readily, but rather slowly, and there appears a certain amount of labour over the process. Still cannot protrude tongue at will.

August 20th.—Can now talk readily. Menstruated last month, first time since admission.

Nov. 22nd.—Appears now convalescent. Talks quite rationally; memory good. Still, however, has not recovered complete voluntary control over tongue. *Cardiac exam.* No increase in area of dulness. Soft systolic bruit at apex, very faint at aortic cartilage; not heard in axilla. Pulse 72, a little irregular. General health excellent; weight, 125lbs.

Dec. 31st.—Discharged.

Charlotte V., æt. 15 years. Single. Domestic servant. Admitted Sept. 10th, 1881.

History.—Mother died, aged 38, of hæmorrhage after confinement; she suffered from epilepsy; patient was the fifth child in family, and the youngest born alive, mother having had subsequently several still-born children; father living; one of his uncles is insane, and in Broadmoor Asylum. Father stated that patient had always been rather a wayward child; he had seen nothing of her for twelve months, she having been in service; the history of her present illness was very defective, but it appeared that she had suffered from chorea for about a month, and no evidence of rheumatism was forthcoming; her mental disturbance had probably lasted a week or two. This was her first attack.

On admission she was noted to be a well-made young woman, 5 feet 4 inches in height, and fairly nourished. Pupils dilated, equal, regular, active to light. Temp. 99·3. Tongue moist and clean. Lips dry and cracked. Respiratory sounds normal; respiration, 16. Heart: apex beats in 4th space, a little internal to nipple line; no increase in area of dulness; systolic bruit of somewhat musical character at apex, heard also in axilla, but not in back. Pulse 104, irregular, and intermittent. Sensation appeared normal. Plautar reflex well marked. No albumen in urine. General choreiform movements of moderate intensity. Tongue protruded with a jerk, but steady—no tremor. Speech indistinct from the jerking manner in which it was delivered. No redness or swelling of joints. Her mental condition was one of mild delirium; she talked to herself in a quiet sort of way, rambling on from one subject to another disconnectedly. When

questioned, however, she answered simple questions rationally, and could, indeed, give a more or less coherent account of her illness; when interrogation was stopped, she immediately rambled off again as before. She slept well that night, and on the following day was quieter, T. 98·4, P. 96, very irregular and intermittent. Bowels had been moved, and had taken a fair amount of nourishment. Choreiform movements pretty prominent. She now showed hallucinations of hearing, saying she could hear her father's voice; she thought one of the nurses was her sister. Remained much the same for the next few days, talking to herself at times, but usually pretty quiet, though occasionally pettish and disposed to cry; complained of "stuff" being put on her lips. Had slept fairly well. Temperature had kept normal. On the 17th, the disorders of movement were still well marked. She still talked to herself, and thought she could hear her father's voice, but answered questions fairly rationally, and stated correctly the length of time she had been in the asylum. Special senses tested, but no abnormality detected. Cardiac systolic bruit still well marked. Pulse 80, very irregular. The following day was more restless, and somewhat noisy, and this continuing, Hydr. chloral, grs. xv., were given occasionally. By the 24th the choreiform movements were much less, and patient was quieter altogether. Hallucinations of hearing persisted, and she had illusions of taste, saying she could taste sulphur in her food. 28th, weight 104lbs. October 3rd; choreiform movements having become worse again last few days, chloral was readministered; these are now less marked. Patient appears duller, and can scarcely be got to answer any questions. Ordered Ferr. Cit. c. Quin., grs. v., Liq. Strychn., m.v., t.d. sd. Oct. 9th—Has been up to-day and yesterday, and appears decidedly brighter; answers questions readily, and in general rationally, but still has the same hallucinations of hearing, and thinks sulphur is put into her food; also imagines that some one is concealed in the ceiling, who drops "chloral" on to her lips; still has the delusion that one of the nurses is her sister. 11th—Complains of a burning feeling at the end of her tongue, and thinks lime has been put on it. Knows the names of several of her fellow-patients. 28th—Has improved very much, both mentally and physically. Chorea has entirely disappeared. Weight, 124lbs. Menstruated normally ten days ago. Has lost all her delusions, with the exception of that referring to her father, whom she still thinks used to talk to her, though she does not hear him now; otherwise appears quite rational. It accidentally transpired that she remembered a conversation spoken in her hearing after she had been in the asylum a week; the conversation did not concern her in any way, and she appeared at the time hardly capable of taking it in.

Ophthalmoscopic Examination.—Fundus perfectly normal. November 16th—Is cheerful, well-behaved, and works well; appears quite rational, having now lost the delusion about her father. Memory

appears good for recent events. 23rd—Cardiac physical signs much the same. Still has a soft systolic bruit at apex, but this has now lost its musical character; pulmonary second sound reduplicated, and accentuated. Pulse 84; a little irregular. Mentally, is quite convalescent. 20th—Weight, 134lbs. December 31st—Discharged.

Remarks.—It has long been known that some amount of intellectual deficiency is very commonly met with even in ordinary cases of simple chorea; affections of the kind here recorded are not however frequently met with. In 1870 Dr. Clouston described* two cases of this disease under the title of "Rheumatic Insanity," and there appears to be little doubt that this affection is but one manifestation of the rheumatic diathesis; in the second of my two cases, indeed, there was no evidence of joint implication whilst the patient was under observation; but the only history obtainable as to the onset of the disease was from the patient herself, and such, therefore, might have existed previously. Putting this on one side, however, the association of endocarditis and chorea alone furnishes strong evidence in favour of a rheumatic basis. There are many striking points of contact between the cases here recorded and those described by Dr. Clouston, and also some differences; but I should like to call special attention to the well-marked disorders of special sense that were present, for although the higher intellectual faculties of attention and memory were greatly impaired, or altogether in abeyance at the onset of the malady, these were amongst the first to recover themselves. They were at least normally exercised with respect to some things at a time when the sensory disorders were still prominent.

The Use of Atropine as a Sedative. By J. R. Gasquet, M.B.

The high place assigned by Dr. Ringer to atropine as a sedative and hypnotic has lately suggested to me to try it in the cases which are so much relieved by hyoscyamine. My experience has so far been too limited to pronounce definitely on its value; but it may be sufficient to induce other observers with more ample opportunities to give it a trial, and come to some definite conclusion as to its value. I have given it only in three cases: two of chronic mania with considerable violence and destructiveness, and the third of

* "Journal of Mental Science," July, 1870.

chronic insanity, characterised by vivid terrifying auditory hallucinations, which caused constant screaming and excitement. All three had been previously treated with hyoscyamine, and with the result of greatly quieting them. Two have now been taking the atropine for three months, and one for two months, in doses I shall presently mention, with occasional intermissions to test the action of the remedy. Comparing its action with hyoscyamine, it seems to me that it is less powerful than that alkaloid. The patients are less completely subdued and helpless: there are occasional outbursts of violence and excitement, though by no means so great as when atropine is not taken. Its effects seem to pass off more quickly, so that it needs to be given two or three times in the twenty-four hours. On the other hand, the patients are decidedly in a more natural and healthy condition; there is less stupor, oppression, and heaviness than under hyoscyamine. The pupils need generally not be dilated, but there is often much dryness of throat before the dose is reached, which quiets the patient. I ordered a solution of atropine in glycerine, of the strength of the liquor atropiæ P.B., on account of the risks from evaporation of the officinal preparation. I began with ♏ ij of this in each case, and have now pushed it in two cases to ♏ x, and in the third to ♏ vj twice a day. One case I treated for a while with belladonna, giving ʒj of the tincture; but the atropine seems more uniform and convenient, especially as it can be administered without the patient's knowledge if necessary. I may remark that hyoscyamine is about fifteen times the price of atropine, which would be a matter of some importance in a large practice, if the action of the two drugs is not very different. I regret that I have had no acute case in which the alkaloid might be suitably tried since its use occurred to me. It might be worth trying whether the persistent use of atropine in full doses might not be useful as a curative agent in chronic mania, as it has sometimes been found to cure that cognate neurosis, exophthalmic goitre.

Note on the Chemical Constituents of Hyoscyamus. By Dr. G. M. Bacon, Cambs. Co. Asylum.

Although *Hyoscyamine* in some shape or other has been used now for some time, but little is known of its chemical constitution, and one is, therefore, glad to notice that at the Pharmaceutical Conference, held in London, in August,

1881, a communication was read from E. Merck, of Darmstadt, the now famous producer of this drug, on the "Present State of our Knowledge of the Proximate Constituents of Henbane."

Professor Ladenburg, in continuing his researches on the mydriatic alkaloids of the Solanaceæ, has definitely confirmed the existence of a second alkaloid in *Hyoscyamus Niger*. The presence of this alkaloid was, indeed, suspected from the difference in the physiological action between the crystallised and the amorphous (coloured) hyoscyamine. Dr. Ladenburg calls the new alkaloid "hyoscine," but says this name is superfluous, as there is no doubt that it is identical with "tropine." It is stated ("Pharmaceutical Journal," Sept. 24, 1881) that *Hyoscyamine* is found in—

(*a*) Hyoscyamus niger, L. It is from this source that the hyoscyamine of Merck is prepared.

(*b*) In Atropa Belladonna, L. So-called "light atropine."

(*c*) In Datura Stramonium, L. Commonly known as "light daturin."

(*d*) In Duboisia myoporoides, R. Brown. So-called Duboisin.

Hyoscine is as yet only found in *Hyoscyamus Niger*. It dilates the pupil like atropine, to which alkaloid it bears considerable resemblance in physiological action.

In further discussion, it was announced that "Hyoscine" had a "soothing and soporific influence," and that "hyoscine hydriodate" was the salt most commonly employed. Another point discussed was whether Mr. Merck obtained his hyoscyamine from the first or second year's plants, and it was stated that the *first* year's plants were the material used in Germany. The B.P. orders the use of only the biennial variety, but Mr. Cleaver "believed it was a matter of manufacturing knowledge that the annual variety yielded as much, if not more." So much for the traditions of the past!

At the meeting of the Cambridge Philosophical Society, on Feb. 20, 1882, a specimen of Duboisia, cultivated in the Botanic Garden, was exhibited, raised by seeds imported by Baron von Mueller. This plant, it was stated, forms a small tree about 20ft. high, and is a native of Australia. It is found near Sydney, and at Cape York; it is also a native of New Guinea and New Caledonia. It has small, pale, lilac or white flowers, and belongs to the Solanaceæ."

Recovery, after nearly three years, from an attack of Mania, in which Hallucinations formed a prominent symptom. By Dr. Bacon.

The persistence of auditory hallucinations is generally admitted to be good evidence of an incurable condition among the insane, and I, therefore, think it may be worth putting on record the following case, in which such symptoms were followed by recovery:—

A married woman, æt. 33, was admitted into the Cambs. Asylum in May, 1874, in a state of acute mania. She was raving, violent, and destructive. She was treated with bromide of potassium, digitalis, chloral, &c., for two months, but got no better. She got better at times, but in December was reported as full of mischief, dirty and untidy, and does a little scrubbing at times.

In April, 1875, she was said to be no better in mind and dirty in her habits, and heard voices.

In June, 1875, she had become lately quite clean, and more quiet, slept well, and did needlework. She would, however, stuff up her ears with cotton, and talked of hearing voices speaking to her, and conversed with imaginary beings.

In August, 1875, she was depressed.

In November she had a return of excitement, and was as bad as ever.

In December she was better, and able to attend the entertainments.

During 1876 she had some relapses, but was generally better, though she still had auditory hallucinations, and behaved very oddly.

In February, 1877, she appeared much better, very quiet, employed herself, and was sensible. She went out on trial for a month, and was then discharged recovered.

I hesitated greatly as to discharging her, but she seems to have kept well; and late in 1881 I met her husband, who told me she was well, and they had been living together comfortably ever since her discharge, but that she was "irritable, and wanted some humouring." Perhaps this requirement is not unknown in the domestic life of the sane; but at all events I was much surprised to find this patient able to keep out and take care of her family, with its attendant troubles, for four years and be reported as well.

Cerebro-spinal Localization.—Destructive Lesions of Encephalon.—Disease of Cord. By W. Julius Mickle, M.D., M.R.C.P.

Localized destructive lesions of cerebrum, basal ganglia, pons, and cerebellum, and secondary descending disease; also cornual atrophy.

J. S., admitted 1869; died March, 1881, aged 74 years.

Hereditary influences were supposed to have assisted in bringing on mental disease. The patient had naturally been of a somewhat irritable disposition, and was a pushing, active, energetic man of business. Mental failure appears to have come on gradually.

It is on record that when admitted here he was depressed, apathetic, and for some time had been troubled with suicidal inclinations, which he was too irresolute to carry into effect; that though in fair general health, he spoke much of his general debility and incapacity; that he was confused in ideas, of very defective memory, simple and childish in conversation, slow and hesitating in replies, clean in habits; and that he took no part or interest in any occupation or amusement. As for the condition subsequently:—In the early years he was rather better, was fat, in fair health, moderately active, but quite unable to take care of himself, occasionally restless, depressed, and intolerant of musical sounds. In the later years, at least, he was always demented, the principal characteristic being the great failure of memory, so that he scarcely could recollect anything about himself or what had happened to him a few minutes before, or what he wished to tell one, or how he felt. He was, however, clean, good-tempered, and no moral failure was perceptible, only an intellectual debility and mnemonic failure. He was polite, and appeared to be placid, cheerful, and happy.

In 1877 was an attack of vomiting after dinner, apparently with unconsciousness for a few seconds.

In 1878, 1879, and 1880 he gradually became more and more feeble, scarcely able to walk, and was constantly wet.

In March, 1880, some 12 months before death, left hemiplegia came on suddenly, without loss of consciousness, or convulsions, or coma, but with some mental confusion, and thick, muffled, paralytic speech. Subsequently speech was more or less similarly affected, being thick, somewhat muffled, and slightly stammering, though better for months than it had been for a few days immediately after the attack. The pupils were somewhat sluggish, irregular; the right one was slightly the larger. The food was apt to collect in the left cheek. Very soon after the seizure the left lower limb became rigid, straight, immovable, and so stayed until death, the foot being in the mild talipes equino-varus position. The left arm was rigid, sharply flexed; the fingers were tightly flexed into the palm and adducted; the

wrist was flexed and abducted. There was no ankle clonus. In both legs the patellar tendon-reflex was diminished and very slight. In the left leg were diminished sensibility and reaction to pinches; in the left arm these were more obvious, and in the right limbs were rather in excess. The right leg was usually flexed and adducted, so that the sole of the foot rested on the bed to the left side of the rigid, extended left leg. He shouted or groaned aloud on the slightest manipulation of any kind, such as the necessary dressings and cleanings, or on any attempt to straighten the left arm or flex the leg. He was constantly wet and dirty; troublesome, also, by restlessly grasping objects with the right hand. The saliva drivelled from the mouth. He could not recognise persons, though their voices at times seemed in some way familiar to him. He addressed people not present, or when no one was by, repeating the same phrase again and again, and was profuse in his thanks, though somewhat mechanical in their expression. At times it seemed as if he saw indistinctly, or not at all, to his right side; and the head was sometimes turned to the right, the eyes to the left. A gangrenous slough came on the left heel. Finally, dysphagia became marked, so that at last he could not swallow at all, and life was supported by nutritive enemata. Bronchitis, and, latterly, hypostatic congestion and pneumonia of a chronic kind, even as if part of the mode of dying, assisted to cut life short.

Abstract of Necropsy.—Medium height, large frame, traces of obesity. Dura-mater too adherent on lateral aspects of calvaria, somewhat thickened; slight delicate false-membrane tissue between dura-mater and visceral layer of arachnoid, especially in frontal regions. Very marked atheroma of intracranial arteries, the left vertebral artery being extremely atheromatous; the right less affected; the basilar moderately; the superior cerebellar slightly; the posterior cerebral arteries, especially the left, considerably; the middle cerebrals and their branches extremely; and the anterior cerebrals moderately. Almost complete blocking of right Sylvian artery at level of outer edge of insula.

Widespread, but slight, arachnoidal opacity.

Brain flabby, and much wasted; much intracranial serum, and ʒ vi. of it in the lateral ventricles of the brain. Cerebral grey cortex slightly pale generally, and rather wasted in the frontal and parietal regions; it and the white substance flabby. Olfactory bulbs and tracts slightly soft and shrunken. Insulæ free from gross alteration. Left cerebral hemisphere, 16¼ozs.; right ditto, 16ozs.; cerebellum, 4ozs.; pons and medulla oblongata, ½oz.

The following were the more localized lesions:—

1. A large yellow patch of wasting and disappearance of the cortex, with local meningeal induration and pigmentation, affecting

the median surface of the right hemisphere, the middle part of the *right* paracentral lobule, and the adjoining gyrus marginalis for one inch in front of the lobule, the fissura calloso-marginalis forming the middle line of this change, and the subjacent white substance being slightly indurated.

2. Complete disappearance of the cortex and brain-substance on part of the under surface of the *left* occipital lobe and occipito-temporal region, the overlying and thickened meninges bagging here, and forming the wall of a fluid-full cavity continuous with the posterior horn of the left lateral ventricle. The cortical destruction, commencing $\frac{1}{8}$in. from the tip of the occipital lobe, and extending to the sulcus hippocampi, involved nearly the whole of the lobulus lingualis, a little of the lobulus fusiformis, that part of the hippocampal gyrus which is opposite to the posterior border of the crus cerebri and in front of the calcarine fissure, and it extended right through to the posterior horn of the lateral ventricle. This lesion was three inches in antero-posterior length, but its width was narrowed by the falling in and encroachment of the sound tissues on each side as the degenerative and absorbtive changes had advanced. There was gelatinous-like thickening of the ependyma of the posterior ventricular horn.

3. Yellow and drab-coloured superficial spots and patches, with slight superjacent adhesions to the thickened meninges, on the upper surface all along the posterior two-thirds of the peripheral border of the great longitudinal fissure, especially on the occipital lobes. The same, to a slight extent, also one inch from the upper end of the right ascending frontal gyrus.

4. Yellow, drab, or brownish degeneration, softening and destructive, forming a lesion the size of a sixpenny bit, at the middle of the outer border of the caudate nucleus of the *right* corpus striatum, extending to the depth of a third of an inch, and affecting also the internal capsule, the wasting, mingled softness, and stringiness descending into the crus cerebri. Also a minute and very superficial patch of drab-coloured degeneration at the middle of the ventricular aspect of the left corpus striatum.

5. Wasting and discolouration about the middle and posterior parts of the right crus cerebri, entering the pons Varolii.

6. Softening, wasting, and yellowishness of the posterior part of the inner edge of the *left* optic thalamus, extending about a sixth of an inch into its substance.

7. A small cavity in mid-depth of the pons Varolii, towards the upper part, near the median plane, but slightly towards the right side; firm-walled, and containing turbid fluid.

8. Five patches of yellowish wasting and sinking on the under-surface of the left lateral hemisphere (or lobe) of the cerebellum—namely, on the digastric, the slender, and the inferior posterior lobes

of the cerebellum. These patches were similar to those affecting the cerebrum, as above described.

9. Spinal grey matter of small dimensions. Some wasting of the left posterior grey cornu. Slight incipient induration of posterior part of left lateral column.

Under the microscope, the cortex of the right frontal region showed granular degeneration of the nerve-cells, and changes in the walls of the minute blood-vessels.

For the rest, the following only need be stated here :—

Heart, 10ozs. ; mitral and aortic valves somewhat atheromatous ; fibroid patches in columnæ carneæ of left ventricle ; heart-muscle pale, and slightly fibroid in parts ; coronary arteries highly atheromatous, aorta slightly. Bronchitis, hypostatic congestion, and pneumonia ; cicatrix at left lung apex. Kidneys red and cirrhosed ; $3\frac{3}{4}$ozs. and $3\frac{1}{2}$ozs. Liver, $49\frac{3}{4}$ozs. ; spleen, $3\frac{1}{2}$ozs.

Remarks.—1. In this case, with left hemiplegia, there were destructive lesions affecting both the right corpus striatum and the right paracentral lobule, the former being probably the one mainly efficient in producing the palsy, as also the secondary descending lesion.

2. With rigid contractures of the left limbs—the arm being in flexion, and the leg in extension—and with diminished patellar tendon-reflex, and no ankle clonus, the descending sclerosis was only slight, while the corresponding posterior grey cornu was wasted. Possibly the lesion of sensory elements more than neutralized the descending lesion of motor elements in this respect.

3. The destructive lesion of the under surface of the left occipito-temporal cortex, together with the partial lesion of the left optic thalamus (let alone the pontine lesion), were of interest, and somewhat puzzling, in relation to the incomplete anæsthesia of the left leg, and the appearance as of some hyperæsthesia of the right limbs. The state of the cord, however, affords some explanation as to these symptoms, and the pontine lesion may have been contributory ; while, as concerns the impairment of visual perception of objects towards the patient's right side, the same lesions were noteworthy, and, of these, the occipital in relation to results recently published by Munk.

4. The absence of any moral degradation accompanying the extreme intellectual (mnemonic) failure is worth keeping in mind for comparison of the lesions here with those occurring in clinically similar cases.

OCCASIONAL NOTES OF THE QUARTER.

The Case of Isaac Brooks.

We record, with comments, the statement of Dr. Warrington, the medical attendant of Isaac Brooks, taken from "The British Medical Journal," Jan. 14th, 1882:—

"Isaac Brooks, single, aged 29, a small farmer and stonemason, was seen by me, at his own home at Rushton in Staffordshire, on December 5th, 1879, nine hours after he had received the following injury. The left testicle, with its more immediate covering, lay completely outside the middle of the left side of the scrotum, suspended by the cord, which was untouched. The testicle itself was uninjured. The wound through which it protruded appeared very small, and its edges clean cut. I returned it within the scrotum with some difficulty, without enlarging the wound. I then could observe that the wound was about one and a half to two inches in length, and had been made across the front surface of the scrotum. After replacing the organ, he had great pain in the left groin, extending upwards to the left loin, which lasted for half an hour, and was much relieved by hot fomentations. I inserted three sutures, and applied wet lint compress.

"Three days afterwards I removed the sutures, and the wound had healed. He had no pain, but the testis was swollen for some time afterwards. He soon regained his usual health, which was not robust, owing to valvular disease of the heart, which had existed since an attack of rheumatic fever fourteen years previously.

"His account to me was, that three men had committed this outrage on him, in the highway, about a quarter of a mile from his house. One pinned him from behind, pressing the knee into his back, and taking him off his legs; another man blindfolded him, and pressed strongly over his mouth; the third man operated on him. At first, he struggled very much, but soon he began to think more about getting his breath than anything else. He did not feel the cutting so much as when the organ was pressed out.

"To me he denied any identity of his assailants. At Leek, and at the Stafford assizes, he swore to the identity of two out of the three men. These men, Johnson and Clewes—farmers, and neighbours of his—were sentenced to ten years'

penal servitude. Neither before the magistrates nor at the assizes were any questions asked me, as to whether it was possible the injury could have been self-inflicted.

"On February 13th, 1881, I was sent for again to see Brooks, which I did fifteen hours after he had sustained another injury to the genital organs, but very different in character from the last. I found him lying in bed, bleeding from a wound which was very open, fully two inches in breadth at the lowest part of the scrotum, at right angles to the raphé, which divides it into two equal parts. The wound was deep, and the tissues around filled with clotted blood, the scrotum looking much swollen and dark-coloured. He told me that four men had attacked him in the same road as before. He tried to escape over a stone wall, but they caught him on the top of it. They stripped his trousers down, and inflicted the wound by a stab with a knife, or some sharp instrument. He bled very much at the time, but, by putting his handkerchief and pressing well, he managed to walk home. He found the bleeding had stopped. He went to bed, and during the night awoke finding that he was bleeding considerably, lying in a pool of blood which had run through the bed on to the floor. He called up his aged mother, who slept in an adjoining room. They applied cobwebs and tobacco, with pressure of cloths, &c., to the part; but, finding these did not stop the flow, they inserted a long pin through the tissues and twisted worsted round each end of it. This for the time stopped the hæmorrhage. During the day, bleeding recurred, and I was sent for. On February 14th, I was again summoned, as hæmorrhage had occurred again; they had inserted another pin in a similar manner during the night. Finding him in a very exhausted state from loss of blood, I persuaded him to become an inpatient of the Cottage Hospital at Congleton, under my care. He consented with reluctance, because I insisted upon having his permission to inform the authorities of the hospital as to the exact nature of the injury, and the cause of it. He wished it kept quiet. He had suffered so much mental distress in prosecuting in the first case; he was ashamed that it should be known he was injured in the genitals at all. To neither police, hospital committee, or myself would he ever vouchsafe any further information about the attack. No prosecution could, therefore, take place. He expressed to me a feeling of regret that he had prosecuted in the first affair, and considered that the men had been too heavily punished.

"He remained in the hospital about a month—the wound never bleeding again. It healed up slowly.

"After this second attack, owing partly to his loss of blood, &c., he never regained his average strength. I heard he was ill, and that he had become an in-patient of the North Staffordshire Infirmary last November.

"He sent for me again to visit him in December last, and I saw him for the last time on December 26th, 1881. He was very anæmic, had some slight amount of congestion of the lungs, and a little œdema of the legs. He was perfectly sensible. I informed his friends he was on his deathbed, and would not live many days.

"He died on December 31st, 1881. A few hours before death he confessed to an old friend of his, a neighbouring farmer, named Harrison, that he could not die comfortably, because two men, Johnson and Clewes, were innocent of the crime for which he transported them, and he wished them to be liberated. Harrison reduced this statement to writing, and Brooks signed it in the presence of his mother and brother, who were greatly astonished. This confession has naturally caused great sensation in the neighbourhood in which he lived; and as the public generally did not know of the exact nature of the injuries, and had never heard any details whatever of the second one, a very common impression had got abroad that both of them must have been self-inflicted.

"Brooks was a young man of reserved habits, in fact very reticent. He was fond of music and reading, frequently consulting an old fashioned encyclopædia which he possessed, and sometimes trying to surprise people by the use of very long words. He was in the habit of dancing well when he went from home, and his neighbours perhaps thought he aped the manners of his superiors too much. He was deliberate of speech and of action; he was rather better educated than his neighbours, and this, along with some of his habits, caused him to be quite an exceptional character amongst the rather rough, unmannered, hill-country farmers, amongst whom he dwelt. He was not by any means a favourite amongst them. His house was situated in a most lonely place and five miles from a town. I have heard since his death that he occasionally consulted fortune-tellers, and was even guided by them in his actions sometimes. I may mention that some of the farmers in the neighbourhood are in the habit of castrating their own cattle. As to the manner in which Brooks and his mother ingeniously

attempted and succeeded in stopping the hæmorrhage with a pin and worsted, such a practice is common when bleeding occurs in the wounds of cattle. I am not aware that Brooks had any morbid ideas with regard to his sexual organs. He once had a slight gonorrhœa about ten years ago. He did not seem more anxious about the matter than such persons usually are."

The report of this case is of great interest, and presents many and various points for examination.

We should at once say that though we may—after the whole case is complete—be surprised that insanity was not suspected after the first injury, we cannot accuse either doctors or lawyers of gross carelessness, the conduct of the young man and the truthful appearance of his tale might easily mislead even experts. But we consider that on the occurrence of a second similar injury that suspicion should have been aroused.

The consideration of the case should be preceded by the examination of cases in which self-mutilation does take place, and, secondly, of cases in which false accusations are made. It is not very uncommon to meet insane persons who have injured themselves, and in these the injuries are often of the sexual organs. In such cases the train of ideas is somewhat after this order:

First, a loss of control of the lower nervous centres, so that sexual excess, or abuse of some kind, has been indulged in; this may, in some cases, be the cause of the first mental disturbance, but, certainly, in many others, puberty, or some functional change in the reproductive organs, sets up desire which is not controlled—which cannot, in weak neurotic subjects, be resisted. This constant and exhausting strain increases nervous weakness, and the patients lose more and more their self-control; they become weak, and, like weak people generally, suspicious; their suspicion takes form; they imagine people talk about and look at them, and in this state they may become violent and dangerous.

There is another point of interest in such cases, and that is their impulsive nature; they are apt to do things suddenly and violently; they have, as we have said, lost more and more their self-control, and neither mind nor muscle seem to be under command. Such cases have also very commonly hallucinations of hearing; voices are heard, and they receive directions, or commands, or are driven by influences to do things which they are opposed to.

They often struggle long before they give way. Such cases feel that their habits of indulgence are injuring them, and that every time they give way, they are approaching their ruin; they brood over their ailments, and may become hypochondriacal, or they may take measures to reduce their desires by taking drugs, or if more irritable, may attempt to castrate themselves, and thus act, as they believe, in obedience to Scripture, and remove the offending member. Hence, such persons in the earlier stages of mental unsoundness, may injure themselves, and often do so by complete or partial castration.

The second question, as to false accusations—these are common enough, and in the Journal, recently, have been considered the difficult questions which may arise in such cases.

In cases, in whom the insanity is connected with sexual troubles, such accusations are among the most general. All of us are used to receive accusations about "tampering," "playing up," "playing tricks on," "liberties being taken," and the like, and know the tendency there is in these patients to be vindictive.

We should consider it as a fortunately rare combination to meet with such delusions, with such consistent conduct, as seen in the case of Farmer Brooks.

We have personally seen several patients who have injured themselves to a slight extent, and have accused others. We meet with this sometimes in weak-minded patients who either injuring themselves, or getting injured by accident, accuse some perfectly innocent person; in other cases a definite plan of lying and mischief-making seems to be the symptom of moral insanity.

In one girl we saw, this was associated with loss of common sensibility. She thrust pins across her eyelids, and and accused the doctors of doing it.

And now for the case before us—we have no family history of insanity. The man was single, and lived a very subjective life; he was just the type of man in whom all the evils of civilization seem to accumulate, great sensibility, with loss of power of control, an emotional but ill-ruled machine. A solitary man, thinking himself misunderstood and neglected, building castles in the air, finding the times out of joint, and from this idea conceiving that he has enemies and persecutors.

This class of man is above his fellows in most points, but he never loses the idea that he is better; and just as

certainly as grace of movement is lost when the effort becomes manifest, so true culture is wanting when the assertion of it is present.

With a too subjective life followed idea of being misunderstood, and perhaps some idea about notoriety was an active agent also. "Voices," moral perversion due to sexual abuse may also have played a part.

An interesting case of attempted mutilation of the genital organs in a female will be found reported by Dr. Howden in the Clinical Notes and Cases.

Guiteau.

We had intended to comment upon the psychology of Guiteau, but defer doing so until we are in possession of more particulars. The papers sent to us, reporting medical evidence given at the trial, are imperfect, and the "American Journal of Insanity," which it is expected will contain a full report, has been delayed in consequence beyond the time of publication.

PART II.—REVIEWS.

A Treatise on the Diseases of the Nervous System. By James Ross, M.D., M.R.C.P. Lond., Assistant Physician to the Manchester Royal Infirmary, &c. *Illustrated with Lithographs, Photographs, and Two Hundred and Eighty Woodcuts.* Two Vols. London: Churchill.

Rarely indeed does a work so excellent in every way come under the notice of the reviewer; and it is with feelings of pleasure that we proceed to give some idea of the character and scope of this new treatise on Diseases of the Nervous System.

The work is a large one, and is designed to be comprehensive. It consists of two volumes, containing between them nearly sixteen hundred pages. It treats of all diseases of the nervous system except insanity.

It presents several noteworthy features. The arrangement, the illustrations, the matter, and the style, are all such as to deserve a few detailed remarks.

The first portion of the work, to the extent of about two hundred and eighty pages, is devoted to the general pathology

of the nervous system; the remainder, constituting the bulk of the treatise, deals with the special pathology. Under the first heading a brief and concise general account of the nervous system is given, the anatomical and physiological details being reserved as prefaces to the separate sections dealing with the diseases of each particular structure. Etiology, Symptomatology, Morbid Anatomy and Physiology, Diagnosis, Prognosis, and Treatment, are also dealt with in a general way. The account of general symptomatology is especially good; the modes of detecting or eliciting the symptoms and their significance are given with great fulness and clearness.

In the second portion of the work, that dealing with the special pathology of the nervous system, the simple in all cases is made to precede the complex. The subjects for example treated in order are the Diseases of the Peripheral Nerves, of the Sympathetic System, of the Spinal Cord and Medulla Oblongata, of the Encephalon, and finally of the Encephalo-Spinal System. Prefixed to each part is a most admirable and detailed account of the structure and functions of the portion of the nervous system with which the section deals.

Having now obtained an idea of the plan and scope of the treatise, we may go on to say a few words about the matter it sets forth. In this respect there is one quality that especially characterises it. Anatomy and physiology are not a dead letter; details of structure and of function are not, as they so often are, merely dry statements without any fruitful connection with the practice of medicine. On the contrary, anatomy and physiology yield their treasures to some purpose; and stand in such vital union with the principles of practical medicine as to form a consistent, intelligible, and comprehensive whole. The facts of development, too, have been made to shed light on many of the dark places of nervous pathology.

One of the most pregnant doctrines in the whole of this suggestive work is one which, although dimly and in part recognised before now, has not hitherto received the clear statement, the full and lucid exposition, and the prominent place assigned to it by Dr. Ross. The doctrine in question is based on the distinction between the fundamental and the accessory portions of the nervous system; or rather it may be said to be the distinction itself, with the consequences flowing from it. "Structure being the correlative of function,

the multiplicity and complexity of movement which distinguish man from the lower animals must be accompanied by a corresponding degree of intricacy and variety in the structural arrangements of his nervous system. The main movements which distinguish man from the lower animals are those concerned in attaining and maintaining the erect posture, the varied movements of the hands as organs of prehension, the movements of voice and articulation concerned in speech, and those which are active in the production of facial expression. All these movements must therefore be represented in the human nervous system by structural arrangements, superadded to those in common with the highest of the lower animals. Indeed, all the complex movements first mentioned are acquired considerably after the birth of the human infant, and we may consequently expect that the structural arrangements corresponding to them either do not exist at birth, or exist only in an embryonic condition. The portions of the nervous system which man possesses in common with the lower animals, and which are well developed in the human embryo at nine months, I shall call the *fundamental* part; and the portions which have been superadded in the course of evolution, which differentiate the nervous system of man from that of the highest of the lower animals, and which are either absent in the human embryo, or exist only in an embryonic condition, I shall call the *accessory* part of the nervous system." The full development of this law cannot, of course, be set forth here. It will suffice to say a few words to show how fruitful of good result is the application of this principle. Starting then from the fact that the later-acquired functions belong to the later-acquired structures, we have the earlier-acquired or fundamental functions as a residuum to be connected with the fundamental nervous structure. The median group of small cells in the cord is found to be the structural representative of the later-acquired and more special movements in the limbs. Moreover, these cells are absent from those portions of the cord which do not supply nerves to limbs; they are not found in the upper cervical or in the dorsal region. In like manner the functions of the various other groups of cells in the cord are worked out with ingenuity and with a high degree of probability.

Pregnant corollaries of the doctrine of fundamental and accessory portions of the nervous system are the Law of Evolution and the Law of Dissolution. The Law of Evolu-

tion enunciates the progressive integration both of structure and function, advancing from the simple to the complex, from the general to the special. "The nervous system of man at first resembles the nervous system of all other vertebrates; but as development proceeds, the nervous system of man becomes gradually differentiated from that of an ever-increasing number of the lower animals, while still maintaining a general likeness to the nervous system of the higher animals up to the time of birth." The Law of Dissolution is simply that "the accessory portion, from the late period of its development, is less stable than the fundamental portion, and that its necessarily frail structure will render it more liable to suffer both from accident and the inroads of disease." The reasons why the recent cells offer less resistance than the older ones to morbid influences are not difficult to understand. Not merely are the recent cells of smaller size even in the adult, but their cell-wall is thinner. In addition it is remarked that a large cell presents in proportion to its mass a smaller absorbing surface than a small one does. The smaller cells therefore possess a higher degree of nutritive activity. But this quality gives rise to great instability with "increased readiness to give out energy or to multiply, the latter process, of course, involving the disorganization of a highly organized tissue." One other circumstance of importance is noted, which further explains the comparative facility with which the recent cells succumb to disease. "It has been pointed out that the later-formed cells of the anterior horns grow close to the arteries, while the earlier-developed cells are pushed in the course of development away from them. When, therefore, rapid exudation takes place from the vessels, whether it consist of a fluid and granular exudation, or of migration of white blood corpuscles, the cells in the neighbourhood of these vessels will suffer sooner and in greater degree than those more remote." These principles are illustrated in detail, and with great fulness, in various parts of the work; and without carefully looking through the cases and the microscopic appearances of the morbid structures, we cannot possibly form a just idea of the confirmatory evidence on every doctrine advanced, or of the skill and ingenuity with which the facts are marshalled in such order as to exhibit their bearing almost at a glance.

From what has been said it may be gathered that diagnosis is one of the strong points of the book. In regard to

diagnosis, nervous diseases offer a particularly fascinating study. Each special function points to a special structure; and each variety of disordered function points to a different kind of morbid process. As, through experimental research and the study of development, our acquaintance with the functions of the nervous system extends, the symptoms of nervous diseases cease to be the mere meaningless symbols of an unknown language; they become, like Egyptian hieroglyphics to Oriental scholars, merely another alphabet of an already acquired tongue. Not in any other department of medicine have the symptoms so precise and so definite a meaning as in diseases of the nervous system. Notwithstanding the obscurity that still hangs over many of them, they present as a class features that enable us to fix more accurately the seat, and to infer more correctly the nature, of the lesion than is the case in most other diseases. Dr. Ross's work leaves little to be desired in point of facilitating the recognition of the affections it deals with.

The sections on treatment, too, are carefully written, and represent the well-weighed experience of a scientific physician. The author always makes apparent the rational principles on which his course of procedure is based.

The illustrations are copious, and are well executed. The style is simple and intelligible, and bears the impress of a thoughtful mind.

In reviewing this work we really have nothing but praise to bestow on it. It is one of which the profession in England may justly feel proud.

Die Progressive Paralyse der Irren: Eine Monographie.—Von Dr. E. Mendel. Berlin, 1880.

This is an octavo volume of 350 pages. The author has, with praiseworthy diligence, studied the different phases of General Paralysis by every means available to modern science, and enriched his knowledge with extensive reading. Nothing shows in a more striking way the restless activity of modern research than the rows of references at the foot of almost every page to periodicals in German, French, Italian, and English recording an endless number of observations on a single disease.

A monograph like this from its very size gives a certain indistinctness of outline. After we get over the preliminary

sketch of the typical disease we are perplexed and fatigued by long descriptions of variations which after all can neither recall nor include all the variations. Observations are quoted only to be opposed by the conflicting observations of others, or to be overruled by the experience of the author himself, so that we have not only a book on General Paralysis, but a book about everything which has been written on General Paralysis and about other matters incidentally bearing thereupon. To judge from the preface, Dr. Mendel's book has been finished about ten months after that of Dr. Mickle on the same subject, and this has enabled the former physician to give an opinion on some new points brought out by later researches.

The book is illustrated by some good lithographs showing the morbid appearances of the tissues, sphygmographic tracings, and illustrations of the handwriting of those affected. We cannot claim it as an advantage that the German work is a hundred pages longer than the English one. Dr. Mendel does not attach so much importance to a series of thermometrical observations in the diagnosis and discernment of the pathological condition of the brain as Voisin and Reinhard have done. He agrees with the assertion of Kroemer that the average temperature in the disease is generally lower than that of healthy people, though he observes that the outward conditions of general paralysis favour a low temperature. Where a high temperature does occur, Dr. Mendel is inclined to suspect the complication of other diseases. He suspects some mistake in Reinhard's statements that there is a great difference in the temperature of the head and that of the extremities. He himself found that in the majority of cases the difference was slight, and no greater than what occurs among other insane people or in ordinary individuals. He has seen cases where maniacal excitement took place without any increased temperature. Dr. Mendel notices the sudden variations of temperature in the disease and the rise in the evening.

The description of the mental aberrations in general paralysis is well done. As an illustration of the increasing mental weakness, he gives the instance of a patient who, being asked, What was the square of twelve? answered 144, no doubt from memory; but being asked, What was the square of thirteen? he said 109, and then 121.

Dr. Mendel observes that general paralysis does not necessarily involve the membranes, nor the spinal cord, nor the

sympathetic system, nor is there any peculiar specific lesion, as might have been expected in a disease exhibiting such a distinctive chain of symptoms.

After debating all points, he comes to the conclusion that general paralysis is a diffused, interstitial inflammation of the cortex, ending in atrophy of the brain.

Dr. Mendel finds that syphilis has a decided influence in favouring the accession of general paralysis. Out of 201 cases, of which he had notes, no sure information could be had in 55; but out of the remaining 146 as many as 109 had syphilis. Taking 122 cases of melancholia, mania, hypochondria, and other forms of insanity, about the same age as general paralytics, there was no sure information in 21, and in 28 cases there was syphilis. Thus, in general paralysis, 75 per cent. had syphilis, and in the other mental disorders only 18 per cent. Our author is thus led to think that general paralysis may be a syphilitic inflammation of the brain, one of the many forms of the degenerative processes which this malady engenders. At one time we have cirrhosis of the liver; at another gummatous tumours in the brain; and so a rarer form might be an interstitial encephalitis. He remarks that the diagnosis between general paralysis and syphilitic tumours in the brain is sometimes impossible. The sequel, however, is different; and it may be asked if general paralysis be but a peculiar form of constitutional syphilis, why is it not amenable to the ordinary treatment by which the effects of syphilis are removed or ameliorated?

There is nothing peculiar in the treatment which Dr. Mendel recommends. There are always a great many remedies for diseases which we do not know how to cure. He goes over a list, some of which he denounces as useless; from the rest he leaves the reader to pick out those for which he may take a fancy. It is noticeable that he does not even mention veratrum viride and perchloride of iron, which Mickle recommends as giving more benefit than any other drugs tried by him in the treatment of the disease.

On the whole Dr. Mendel's book is a laborious and praiseworthy treatise, putting into an accessible form a vast variety of information about General Paralysis, so that workers in the same field may be in no doubt of what has been already done.

Lectures on Diseases of the Nervous System, especially in Women. By S. Weir Mitchell, M.D., &c., &c. London: Churchill. Oct. 238 pp.

This little work consists of thirteen lectures by a well-known American physician. It deals, as the preface tells us, with some of the rarer maladies, or forms of maladies, of women. Some of the lectures are original studies of well-known diseases; others deal with subjects little known, or almost neglected. The work is almost wholly of a practical character. Single symptoms, not always the most striking, are selected for special examination; and their value in indicating the clinical relations of the diseases where they are found is pointed out. But the part for which Dr. Mitchell himself would claim the greatest importance would, probably, be that on treatment.

The subjects are mostly some of the severer manifestations of hysteria. In speaking of hysterical palsies, the author says that at one time no cases were so much dreaded by him, but that now there are none to which he goes with greater pleasure. He says, "I am sure I treat them with a success I could not once have gained, and I think that what success I have had has been due to more exact ideas as to what is needed, and that unflinching purpose and action which grow out of distinct views." We will again refer to his method of treatment and summarise it.

Some interesting cases of hysterical motor ataxia, which might be mistaken for paralysis, are given. The patient is able to move the limbs well enough when lying down; but on getting up the lack of co-ordinate movement is at once visible. Although there is no loss of power, the body may be swayed from side to side in the effort to maintain equilibrium. Of this phenomenon Dr. Mitchell puts forward a plausible explanation. He ascribes it to a slowness in volitional acts, due to retardation of nerve conduction. This retardation he has proved and measured in some hystero-palsies. The case of a young lady, Miss B., is given in illustration. "While in bed Miss B. moved all her limbs somewhat slowly, but with a great deal of power; the lift of the leg was done in jerks, as by distinct orders of will, but she showed none of the tremor and twitching of face and tearful look so common in hysteric girls called on for an unusual effort. When held up on her knees, she swayed to and fro, always falling if not assisted. When,

somewhat later, she could stand up, the motor disorder showed still better. From head to foot every muscle, used to preserve the upright posture, gave way momently, and was braced again by distinct acts of will. The rocking motion, so caused, was curious to see. A slight push was sure to upset her, as if she was unable to provide in time enough of power to resist the shock, and restore the disturbed balance. If I warned her of the coming shock, she did far better. The touch of a hand greatly aided her, and the closing of her eyes made things worse. Nor did Miss B., when standing, appear to have the least idea of her balance being in danger until the sway of her figure became extreme, when she caught herself up, and, with an effort, regained her erect position only to fall to the other side. There seemed to be a lack of appreciation of the failing balance, and a slowness in redressing it when lost or in peril." In this case there was not any loss of tendon-reflex, and the senses of touch, pain, and heat were perfect. It may be added that Miss B., who had been an invalid for years, was after two months' treatment and training able to walk unhelped anywhere, and was free from nervousness.

Some examples, both interesting and amusing, of the mimicry of disease are given. Cases are mentioned where a husband suffered from sickness whenever his wife became pregnant; and in this reference is quoted a curious sentence from Francis Bacon (Cent. x., Para. 986): "There is an opinion abroad—whether idle or no I cannot say—that loving and kind husbands have a sense of their wives' breeding child by some accident in their own bodies."

Various disorders of sleep are discussed, especially those marked by a sensation of dread, or by jumping or starting. Their clinical relationships are pointed out, on the one hand, to epilepsy, and, on the other hand, to the startings that frequently occur in healthy people at the moment of falling asleep, or of waking.

Amongst hysterical vaso-motor disturbances, the author records a most extraordinary case of abdominal swelling. The patient was a woman thirty-five years of age. The catamenial flow was irregular. From time to time her thin, but relaxed and pendent belly, swelled within a few hours to the size of about an eight months' pregnancy. The distension continued at its height for some hours, but generally had not quite subsided under a week. "When I saw her the attack was at its worst. The woman's pulse was about 165, and

was a mere thread, at times imperceptible. Her face and limbs were white and cold. The abdomen was tense and red, and could be felt to throb distinctly, while all over it the vessels, veins, and arteries were visibly enlarged. On listening over the belly I could hear a humming noise, a slight thrill. The chest itself was not quite so pale as the neck or face, but the breath was difficult and rapid. It was clear that owing to palsy of all the abdominal vessels, all the available blood of the body of a too bloodless woman was for a time in this cavity and its walls. If, while in this state, she sat up, she instantly fainted, and it was difficult even to lift her hand because of the symptoms thus caused. She herself complained of the tension of the belly, and of the distressing pulsation within it." Years afterwards the author heard that by slow degrees this singular malady disappeared.

Two cases of prolonged fasting are vouched for. One case extended over a month and five days. During the whole of this period the lady took only 24oz. of milk, a daily amount of 12oz. to 14oz. of water, and for the last twenty days from 50 to 80 drops of laudanum. In the second case neither solid nor liquid was swallowed for twenty-seven days. The bowels moved once. Urine was not secreted after the 18th day.

The last and most important lecture is occupied with treatment. The author has little faith in drugs for the treatment of chronic hysterical illness. He bases his treatment on the view that hysteria is finally dependent on physical states or defects. For this reason the small group of women who, with nearly perfect physical health, have obstinate hysteria, are treated in vain. Dr. Mitchell's mode of dealing with chronic hysterical invalids "consists in an effort to lift the health of patients to a higher plane by the use of seclusion, which cuts off excitement and foolish sympathy; by rest, so complete as to excluded all causes of tire; by massage, which substitutes passive exercise for exertion; and by electrical muscular excitation, which acts in a somewhat similar manner to massage, and with it, by depriving rest in bed of its essential evils, leaves only its good. These means enable us to over feed our patients, and to enable them to digest with ease large amounts of food." If the patients are fat and anæmic, the unhealthy fat is reduced by under feeding before the building-up process is begun.

From the extracts we have given, it will be seen that Dr. Mitchell's style is lively and agreeable, though he occasion-

ally employs words that most writers of good English would be slow to use. In conclusion, we may say that the volume is both a pleasant and a useful one; and we commend it to the attention of our readers.

Only a Twelvemonth; or, The County Asylum. Marcus Ward and Co., 1882.

This is a sensational story, purporting to be the actual history, veiled in fiction, of a young lady engaged to be married to a gentleman who, having gone to Ceylon, was incorrectly reported to be dead. Out of health from several causes, Hilda Moran was stunned by the news of her lover's death, and being regarded as insane by the family doctor and the superintendent of a neighbouring asylum, she was sent under her father's order and the certificates of these medical men to the pauper asylum of an adjacent county. Why she was sent to a county asylum does not appear; and the writer does not seem to be aware that as she was a private patient, two certificates would have been required. Anyway, however, no charge is made of illegal incarceration in the asylum. The charge is twofold: first, that she was not insane on admission, and secondly that she was neglected by the medical superintendent, and inhumanly treated by the attendants. The effect of the book, so far as it has any effect at all, is to bring county asylums into disrepute, and is therefore mischievous in its tendency and unjust. The writer alleges in the preface that the story is founded on actual events, and that she has communicated the name of the asylum to the publishers. This, of course, raises a question of fact. Is there a county asylum where the superintendent is fonder of leaving the asylum to engage in hunting, &c., than in attending to his patients, who are consigned to the charge of brutal keepers? If there be, the former patient is bound to expose the management of the institution to the Lunacy Commissioners and the Visiting Justices. If it be said that the testimony of a lunatic will not be believed, we reply that in the present instance, the main charge, that made against the superintendent — notorious negligence of his most ordinary duties—can be substantiated or rebutted, without the evidence of patients.

Illusions. A Psychological Study. By James Sully.

This is one of the volumes of the International Series. The author enters into a fairly comprehensive review of the subject. He reviews the classification of illusions, the psychology of perception, the illusions of introspection, memory, and belief. Dreams as illusions and hallucinations, are also considered, and the teachings of hypnotism are utilised. The book will be found useful to the medical as well as to the general psychologist.

The Applied Anatomy of the Nervous System, being a Study of this portion of the Human Body from a Standpoint of its General Interest and Practical Utility, Designed for Use as a Text-book and a Work of Reference. By Ambrose L. Ranney, M.A., M.D., Adjunct. Prof. of Anatomy, New York University, &c., &c. 500 pp. H. K. Lewis, London.

The title of this book raises our expectations; a cursory glance at the volume strengthens them; a careful examination of it disappoints them. Nevertheless, the work is not altogether devoid of merit.

The design is good. To link together the facts of anatomy that are capable of throwing light upon the diseases of the nervous system, to place, so to speak, the sick-room *en rapport* with the physiological laboratory, is as important as it is difficult. It is needless to dwell on the necessity for recognising the structural basis of symptoms. The necessity is acknowledged, and the whole progress of recent research testifies to it. True, we may perchance treat a disease successfully though we do not know much about the nature of it; but the result is an accident, and in such a case we strongly resemble, as Prof. Huxley remarked on a recent occasion, the man with a bludgeon fighting in the dark and hitting sometimes his friend and sometimes his foe. A book, then, that would competently carry out the design of the present volume would be a valuable addition to our literary possessions.

What are the merits and demerits of the present volume, and how has the author fulfilled his task? The chief merits are general trustworthiness and intelligibility; the chief

demerits are meagreness of detail and absence of anything new. A word on these various points.

The book is a compilation. The term compilation does not of necessity convey a reproach. An anatomical work must to a large extent be drawn from its acknowledged predecessors. There is little room in such cases for originality except in the manner of presenting the facts. Well, the present volume is a compilation. It has, indeed, been compiled from trustworthy sources; but the material, though good, is crude and scanty. The attention, too, given to the various subjects can hardly be regarded as being always in proportion to their importance. For example, the three acts of deglutition occupy seven pages, while the clinical points of interest pertaining to the glosso-pharyngeal nerve occupy only a little over two. Notwithstanding the defects we have pointed out, the book has several points of merit. The language, though occasionally lacking in elegance, is always clear and intelligible. The teaching, though devoid of the fulness and comprehensiveness that should characterise a work of the sort, is, on the whole, sound, and in accord with recognised opinions. The illustrations being mostly borrowed from Sappey, Hirschfeld, and others, though not new, are good.

The book commences with a short general introduction, in which the chief components of the nervous system are named, and Hilton's axioms on nerve distribution are given. An illustration of one of these axioms is the fact that earache is sometimes due to the irritation of a diseased tooth; and again, on the other hand, toothache is sometimes relieved instantaneously by opium introduced into the auditory canal. In the one case an irritative, in the other case a narcotic, action was produced on distant filaments of the same nerve trunk.

The brain occupies nearly eighty pages; the optic thalamus and corpora striata together occupy nearly three pages; the pons Varolii and crura cerebri are disposed of in less than two.

The portion dealing with the cranial nerves is the best in the volume. It occupies nearly two hundred pages, and gives a fairly good account of the symptomatology of its subject. In connection with the optic nerve, the author emphasises the importance of looking carefully for defects of refraction in children who complain of headache. In cases of apparent precocity a child may really be only suffer-

ing from the effects of myopia. His shortsightedness places him at a disadvantage in out-door games, and he soon finds his resource in books. Astigmatism may give rise not merely to apparent stupidity, but to headache and other evils, owing to the exhausting strain of ineffectual muscular tension. Tests for the various defects of vision are given. In speaking of the auditory nerve, the writer lays stress on the importance of examining it when a patient complains of vertigo. This has, of course, been insisted upon by previous authors; but so frequently does the patient deny any affection of hearing that it is readily lost sight of, especially when the giddiness is apparently due to derangement of the stomach.

A little over sixty pages are given to the spinal cord. The remainder of the volume, comprising about one hundred and thirty pages, is devoted to the spinal nerves. There is little noteworthy in either of these sections. John Hilton is quoted to show that groups of muscles with a common function are supplied by branches from the same nerve trunk, and the author expresses a hope that the day is not distant when muscles will be divided into groups according to their nerve supply.

The publisher's portion, the "get-up," of the work, is excellent; the paper is good, the type is large and clear, the leaves are cut, and the volume is well and handsomely bound.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect. Asylum Reports for* 1880.

Speaking generally, the permanency of the subordinate staff may be taken as an indication of the efficient administration of an asylum. Few things can be worse for the patients, and more demoralising to the discipline, than frequent changes amongst the attendants and nurses. Some such idea must have been in the minds of the English Commissioners during their recent inspections, as they have generally reported on the condition of the staff, stating how many attendants and nurses had seen less than a year's service. For facility of comparison we subjoin a list giving (when possible), 1, the name of the asylum; 2, the total number of attendants and nurses; 3, the number who have not been a year in the service. The Scotch Commissioners do the same thing in a better way. At each visit they note the numbers who have left in the interval and the reason, *e.g.*, voluntary resignation, discharge for drunkenness.

Abergavenny.—47 in all : 15 less than 12 months.

Argyll and Bute.—" Of the attendants and servants who have left the service of the asylum, 11 resigned and 1 was dismissed from neglect of duty." Changes not mentioned in 2nd entry.

Ayr.—" 19 attendants have resigned, and 2 have been dismissed for rough usage of patients." Changes not mentioned in 2nd entry.

Barony.—" The number of attendants and servants who have left the asylum is 5, and of those 4 left voluntarily." " Few changes have occurred among the attendants and servants. Nine resigned, and 1 was dismissed for drunkenness."

Bedford, &c.—" We regret to learn that amongst the female attendants changes are frequent, 25 of those now here being of less than 12 months' service."

Cambridge.—30 in all : few novices.

Carmarthen.—62 in all, including artizans and laundry maids ; 22 less than 12 months' service.

Cheshire. Macclesfield.—26 attendants and 32 nurses : 11 men and 9 women under 12 months' service.

Cornwall.—" Not many changes."

Denbigh.—30 attendants : not one less than 2 years' service. 20 nurses : 2 less than 12 months.

Derby.—39 in all : 11 less than a year's service.

Dorset.—3 changes among attendants and 5 among nurses since last inspection.

Fife and Kinross.—9 changes in 12 months.

Glamorgan.—63 attendants and nurses : 15 less than 12 months' service.

Gloucester.—Not stated exactly, but changes said to be fewer than formerly.

Ipswich.—10 attendants and 13 nurses : 3 of the former and 2 of the latter have seen less than 12 months' service.

Lancaster.—47 attendants and 37 nurses : 9 men and 8 women under a year's service.

Lancashire. Rainhill.—30 attendants and 32 nurses : 9 men and 7 women under a year's service.

Leicester and Rutland.—Of 19 attendants and 20 nurses, 3 of the former and 1 of the latter are under a year's service.

Lincoln.—30 attendants and 26 nurses : 14 in all under 12 months.

Leicester Boro'.—41 in all : 12 under 12 months' service.

London.—14 male and 19 female attendants, including laundresses : 7 men and 9 women less than 12 months.

Middlesex. Hanwell.—" Not so many changes during the past year."

Montrose.—" The changes in the staff have not been numerous."

Norfolk.—16 males : 2 less than 1 year ; 23 females ; 13 less than a year.

Northampton.—20 of each sex : 6 men and 10 women of less than 12 months' service.

Northumberland.—The attendants "for the most part remain a reasonably long time in the asylum service."

Suffolk.—Of 16 men and 14 nurses, 5 and 7 are under 12 months' service.

Yorkshire. North Riding.—Of 30 attendants and 25 nurses, 12 and 9 are of less than 12 months' service.

Argyll and Bute.—It is reported by Dr. Cameron that the open-door system, which had been in practical operation for two years, is about to be extended to the whole of the institution. 81 per cent. of the men and 54 per cent. of the women are on parole.

No fewer than 40 private patients (at low rates of board) were in residence when Dr. Mitchell made his inspection. He very justly remarks that the asylum renders a very useful service to the public in this matter. The industrial occupation of the patients is as much encouraged as ever. There are only 16 able-bodied but idle in residence.

In his entry, Dr. Sibbald draws special attention to the rapid increase in the number in the asylum, due, he believes, in part at least, to the parochial authorities failing to avail themselves of those ways of providing for the more easily managed class of patients which can be carried out without resorting to the asylum.

Ayr.—Concerning the deaths, Dr. Skae reports:—"Of the 28 who died, 6 were admitted moribund. The reason for their having been brought to the asylum to die as yet remains unknown to me; they were all aged; two were 78 and one 77 years old. There were none of them violent, or who required the least restraint, or who could in any way be benefited by asylum treatment; they were simply worn out. One of these cases, and one who might have benefited by removal to an asylum, had that been affected in proper time, was a young man who was admitted perfectly comatose, being in the last stage of delirium tremens, in a state of collapse in fact, and who died very soon after admission. His removal to the asylum had been too long put off. Besides these cases there were several who were a good way over 70, one being 76, another 80, and another 86."

To stop a system which is nothing short of scandalous, we would advise Dr. Skae to report to the Procurator-Fiscal the next case admitted in a moribund state. An inquiry by that officer might result in the Inspector of Poor or the parish Medical Officer being prosecuted for manslaughter, and a conviction would have a most wholesome effect far beyond the county of Ayr.

The water supply is very inadequate. The walls surrounding the airing courts have been demolished.

Barnwood House.—Extensive alterations are in progress. When completed they will cost £11,000, and will comprise a new recreation hall, day-rooms, sleeping accommodation for about 35 patients, and water closets with cross ventilation. This hospital is doing a good work, and appears to be in excellent order. From want of room 40 patients were refused admission during the year.

Barony.—The report by Dr. Rutherford is one of the most im-

portant that have appeared for several years. In it he gives the results of the system he has so warmly and courageously adopted, and no one can deny that they are as surprising as gratifying. Whether the method of treatment and management can be adopted *in toto* in all other asylums remains to be seen; in the meantime it is evident that a great work is being carried on at Lenzie, and it is the duty of every asylum physician to see it for himself, not resting content with hearing it discussed, but actually examining this experiment, if it may still be so called, in operation.

For the benefit of English and Irish superintendents, we make the following long extracts from Dr. Rutherford's report; but again we say, Do not approve or condemn on the strength of any printed report, but examine the work on the spot.

After congratulating himself on a low mortality, and a year passed without the occurrence of any serious accident, he proceeds:—

The most important event of the year has been the purchase of the adjoining farms of Muckroft and Fauldhead, by which 178 acres have been added to the available resources for the outdoor employment and recreation of the patients. From this I anticipate the best results, both from a curative and financial point of view. The additional land will be cultivated by the labour of the patients, with little, if any, addition to the existing number of horses and ploughmen. The farm staff has not been increased during the past five years, while the land has been more than doubled in extent. The pecuniary results, therefore, can scarcely fail to be advantageous, and I hope this will soon be apparent in the diminished cost of the maintenance of the patients.

But it is rather as a great and beneficial means of treatment that this extension of the asylum grounds is to be regarded. With 382 acres of land surrounding the asylum, there can be no lack of means of employment for the patients, and of such a kind as cannot fail to still further develop those principles of treatment in which this asylum has taken a decided lead, and stands out prominently among similar institutions in the country. Although Woodilee draws its patients from a large commercial and manufacturing city, and receives 200 new cases yearly, a large proportion of whom are of the acute, dangerous, and suicidal class, yet a visitor may go through the whole house without seeing any of those disagreeable manifestations of excitement and fury so often associated with restraint, confinement, and idleness; while in the grounds all the men who are physically able will be found with their attendants working together like ordinary labourers.

One hundred and fifty of the men are regularly employed at outdoor work in parties of eight or ten, each under the care of an attendant. The number of ordinary resident attendants is seventeen. Twelve of these, and three non-resident attendants, regularly accompany and work with the patients, under the direction of the chief outdoor attendant, whose duty it is to regulate and supervise all work other than the ordinary cultivation of the farm and garden, which is conducted under the surveillance of the farm steward and the gardener. Five attendants remain indoors, and along with twelve able-bodied patients, who occupy themselves as house-cleaners, perform all indoor duties under the direction of the chief indoor attendant. The proportion of attendants to patients is certainly not greater than would be required were the patients treated on the old system of confinement in airing-courts and with locked doors.

The nature of the work necessarily varies with the season of the year. It consists of the cultivation of the farm and garden, together with ordinary estate work, such as road-making, planting, fencing, draining, quarrying,

building, &c. In quarrying, building, and conveying the materials, about 40 men and their attendants have been regularly employed during the last two years. . . . . .

Besides the 150 men who thus work out of doors under the care of ordinary attendants, and the 12 able-bodied men who act as house-cleaners, about 30 are employed as tailors, upholsterers, storekeepers, shoemakers, bakers, plumbers blacksmiths, painters, joiners, engineers, and stokers, under skilful artizans, who are required primarily for necessary tradesman's work in connection with the institution, and are attendants only in the sense that they employ the patients of their respective trades.

Many years ago I used to adopt short hours of work, and had the patients more in the house, but my experience is that it is more satisfactory to keep to the hours that working men are accustomed to, as it makes the work more natural and real. The patients and attendants rise at half-past five. All are house-cleaners until the breakfast hour, which is half-past seven. At half-past eight all go to chapel, where morning prayers are read. At nine o'clock the various working parties are arranged and inspected by the medical officers, after which they go to work. At one o'clock all return to dinner. The patients and attendants all assemble in the dining hall, which accommodates upwards of 500 persons. The patients are first served, and occupy 20 minutes in taking dinner. The attendants then dine at separate tables in the same hall, the patients remaining seated during the 20 minutes allowed for the attendants' dinner. At two o'clock all leave the hall, and after having been drawn up in line, and again inspected by the medical officers, resume their work as in the morning. At six o'clock all return to tea, which is served in the same order as dinner. The indoor amusements are held in the evenings, the principal of which are the weekly dance on Monday evenings, and the Wednesday evening lecture by one of the chaplains. On these and other similar occasions about three-fourths of the patients of both sexes are present.

This full employment of the patients renders it possible to give greatly extended liberty, and to do away with all remaining forms of mechanical or chemical restraint, such as walled courts, locked doors, stimulants, narcotics, and sedatives.

No airing-court or enclosed space of a like nature has ever existed at this asylum. The doors from the wards open directly into the grounds, and the whole estate is the patients' exercising ground.

From fuller employment and increased liberty, with their accompanying diminished manifestation of insane acts, there proceeds a greater capacity for self-control. On this principle, all the doors of this asylum were originally constructed to open with ordinary handles and without a key. An unfortunate accident occurred shortly after the opening, due to a patient escaping, not through a door, but through a window, and it was considered prudent to alter those doors opening to the grounds by removing the inside handle. Two years ago these locks were restored to their original condition, and the asylum has, as your Committee are aware, since been conducted with open doors, with fewer accidents, a smaller proportion of attendants, and with fewer attempts at escape than formerly. It is with pleasure that I am able to say that many Scotch asylums are now conducted largely on the open-door system, and some of them very largely ; but Woodilee is, as far as I am aware, tha only public asylum which is conducted *entirely* on the open-door system, for in it there is not even a closed ward where so-called refractory patients are confined. It is to be remembered that this condition of matters exists in an asylum building situated within 90 yards of the Edinburgh and Glasgow Railway, which passes for three-quarters of a mile through the grounds, fenced by a light iron railing and along which 195 trains pass daily.

From the same causes the use of wines and spirits is gradually diminishing. During the past year their use has been almost entirely confined to newly admitted cases, chiefly females. The actual quantity used was 4 bottles of

whiskey for the males, and 16 bottles of whiskey and 12 bottles of wine for the females. Beer is not used as an article of diet, water only being drunk by the patients and attendants at dinner. Forty gallons of new milk are consumed daily; it constitutes the chief element of sick diet.

Sedative and narcotic drugs have not been used except as an occasional draught at bedtime, in cases where sleep could not otherwise be obtained. The actual number of patients who have received draughts does not exceed 12. I have long been of opinion that stimulants and narcotics are rarely necessary in the treatment of insanity when conducted on these principles. Nine years ago, in reporting to the Argyll District Lunacy Board as to the renting of an adjoining farm, I expressed the opinion that "insanity is essentially a disease of diminished vitality, and when present the system demands invigorating treatment; experience proves that there is nothing so invigorating as active outdoor employment and abundance of fresh air. The more this system is carried out, the plainer need be the food, and the fewer the extras required to maintain the standard of health, because the patients are brought more into the condition, and demand rather the fare, of ordinary labourers than of lunatics kept under the irritating and depressing influences of forced confinement. Under this system, moreover, the quiet and order indoors is increased, and the breakage and destruction of property correspondingly diminished."

Money payments to patients for work done are made in a few cases, but it is hoped that this system may be applied to all industrious men and women. Exclusive of landlord's repairs, the weekly cost of maintenance was 8s. 2·4d.

Bedford, &c.—The recent additions are occupied, and there is now accommodation for 1,000 patients. It is intended to receive a limited number of private patients, persons slightly above the pauper class, at £1 per week. This cannot fail to be a great boon to the poorer middle classes in the three counties.

The Visitors strongly denounce the practice of sending criminals to county asylums, and they urge that a separate establishment should be provided for such cases.

Complaints were made by several patients on the score of ill-treatment by the attendants. Several proved unfounded, but in one case the attendant was discharged, and a warrant issued for his apprehension.

Berkshire, &c.—The additions are now occupied by the patients of the county, and the spare accommodation is to be devoted to non-pauper cases.

During part of the year the sanitary condition of the building was not satisfactory. A malignant form of erysipelas attacked several patients, and there were five cases of scarlet fever.

It would be well if the entry made by the Commissioners at their visit formed a part of the volume published annually by the order of the Visitors.

Bethlem.—Dr. Savage continued during the whole of the year to keep as complete a list as possible of the applications that were made, either of admission, or for advice as to what should be done by friends, in cases of insanity. He thinks that although this list numbers 600, it does not represent more than two-thirds of the applications made,

for a certain number of cases will not give their names, or the names of the patients, and others, as soon as they have heard the nature of the Hospital, decline to give references of any kind. In giving help of this kind, he believes the Hospital is doing as much as it ever did for the insane of the middle classes of England, and what is more, cases are being constantly referred to Bethlem by the physicians connected with large metropolitan hospitals.

Some difficulty was found in getting men thoroughly well suited, physically and mentally, for the work of attendants, but a young and energetic staff has now been secured.

Birmingham.—It would be well if the Commissioners' report were published *in extenso*, and not merely a small portion of it incorporated in that of the Visitors.

Of 674 patients only 30 were deemed curable; 56 were paralytics, and 171 epileptics.

Bristol.—The placing of lunatics in workhouses before they have had the opportunity of medical treatment in an asylum is one of the scandals of lunacy administration in this country. There can be no doubt that Relieving Officers are under great pressure by the Guardians in this matter. It would be well if our Society took care that in future legislation it were made illegal to place any lunatic in a workhouse without an order from a magistrate. There can be no doubt that the diet, clothing, and general arrangements of a workhouse are not suitable for lunatics in the early stage. If they are, we must conclude that those of an asylum are extravagant.

Bearing on this subject, the following paragraph from Mr. Thompson's report is important :—"The admissions of cases that had passed through one or other of the workhouses were 52 in number, and of these 13 died during the year; while out of those that died four were resident in the asylum for less than a week, three less than a month, and two less than two months. Out of the total number admitted from all sources, 20 died in the year, so that while the workhouse cases died at the rate of one in four, those which had come straight from their homes, from other asylums, or had been found wandering, died during the year of admission at the rate of one in ten. It would seem, then, that a workhouse is not a good place of probation for persons afflicted with disease of the nervous system."

Cambridge.—The alterations in this asylum, which were commenced in 1876, are not yet completed. It is astonishing that any governing body could believe that asylum enlargements should be carried out in such a dilatory fashion. The accommodation on the male side became so deficient that 40 men had to be transferred to other asylums for some weeks, and the Visitors issued an order forbidding the admission of recent male cases between 29th Feb. and 29th Oct. For eight months, therefore, the county was without any accommodation for such—a very scandalous state of affairs.

At last an assistant medical officer has been appointed. When one

reads in the report that the Visitors resolved on the 19th July to make such an appointment, but did not elect that officer until the 25th Oct., fully three months afterwards, one is at a loss to imagine what the sub-committee had been doing.

The annual report by the Visitors to Quarter Sessions is a curious document, painfully minute, not even omitting the important facts that the new steam pan in the laundry is 42in. in diameter, 32in. deep, cost so-and-so, and was supplied by so-and-so.

It is well known that committees and sub-committees sometimes rather retard than facilitate business, but the following paragraph from the Commissioners' report displays this, to a degree which we hope and believe is unknown in any other asylum in Great Britain :—

"Upon the general management of the asylum, we have to state that there are many evidences of the interest taken by the Committee and their medical superintendent in the welfare of the patients, and that there are no indications of any abatement of such interest. Observing, however, window panes here and there broken, and other small repairs undone in the asylum, we inquired whether such were not reported to the medical superintendent, as is usual in these establishments, and if they had been, why they did not receive his immediate attention; his reply was, that such repairs must, according to the asylum regulations, abide the decision of the Committee at their monthly meeting. The inconvenience, nay, the danger of such delay, can hardly, we think, be intended by the Committee; and we therefore draw their attention to what appears to us to be a misunderstanding on the part of their chief officer. We feel that the Committee must agree with us that the phrase 'urgent' repairs in No. 27 of the General Rules of the Asylum should be liberally construed in favour of the medical superintendent, so as to give him a large discretion. Searching for further information as to the actual practice, we found a reference in the Minute Books of the House Committee to a resolution of the General Committee, dated 24th June, 1878. The book containing that resolution is not now producible to us, but it should be, as one of our statutory duties is inquiry at our inspections into the management of this asylum."

Carmarthen.—The weekly charge for maintenance was only 8s. 2d., and it is expected that it will be further reduced. This extremely low cost appears to be combined with thorough efficiency of management.

Important additions have been completed, and comprise a hospital ward for 40 female patients with 4 nurses on the ground-floor; a ward for 50 ordinary female patients and 4 nurses on the first floor above the hospital ward; and a separate block for the reception of cases suffering from any infectious disease.

Beer has been discontinued throughout the asylum, both for patients and attendants, in lieu of which the latter have uniform given them.

"Where residence in a workhouse has been first tried and failed,

we find the existing restlessness and the noisy or otherwise faulty habits which are the immediate causes of the sufferers being transferred here rapidly disappear under proper care and increased personal comfort."

There are important errors in Table III. The percentages of recoveries in the admissions are given as 28·8, 15·8, 23·3. They should be 20·8, 7, 13·3.

Cheshire. Macclesfield.—In referring to three men who were admitted during the year, and were discharged as "not insane," Dr. Deas remarks:—"In nine years 18 such cases have occurred, in which no symptom of insanity has been observed after admission. We must assume that all these individuals exhibited *some* symptoms prior to admission, tending to show that they were insane. But it is a somewhat remarkable fact that none of these cases have since been readmitted, from which we may fairly conclude that the verdict come to here was a correct one. Had any of them been in the initial stage of active insanity, we should doubtless have seen them again before this. The lesson to be drawn is the obvious one that great care and caution should be exercised in deciding the very important question as to whether it is necessary to send any particular case to an asylum or not. This is as necessary on the one hand as it is desirable on the other that no delay should be allowed to take place when undoubted symptoms of actual insanity have fairly shown themselves."

Cork.—Fifteen cases of typhus occurred during the year, though only one proved fatal. The general mortality was high, 13·6 per cent. of the average daily number resident. The severe winter carried off numbers of the aged and of those suffering from chest affections.

Dr. Eames very properly urges upon his Committee the necessity of increasing the number of attendants and nurses. A small staff is a false economy. "The same remark I felt it my duty to make last year, with regard to the insufficient number of attendants, I cannot avoid repeating on this occasion. Although a portion of the increased number I then applied for was granted, I find it quite insufficient for the due care and attention required in the efficient treatment of the number of patients in the asylum. The proportion of attendants to patients, including tradesmen, is 1 to $11\frac{6}{7\,5}$ on the average number of patients resident, the relative percentage in Ireland being 1 to $8\frac{1}{2}\frac{0}{2}$. The proportion exclusive of tradesmen in this asylum is 1 to $16\frac{1}{5}\frac{5}{1}$; the relative proportion in Ireland is 1 to $12\frac{1}{2}\frac{6}{2}$. The proportion on the number of beds in the asylum (which, in my opinion, is the right calculation to make), including tradesmen, is 1 to $13\frac{5}{7}\frac{5}{5}$; the relative proportion in Ireland, 1 to $8\frac{2}{2}\frac{1}{2}$; exclusive of tradesmen, 1 to $20\frac{1}{2}\frac{0}{1}$; relative proportion in Ireland, 1 to $12\frac{1}{2}\frac{0}{2}$."

One of the Inspectors recommends some improvement in the dietary, and points out an amusing state of disorder and confusion in the store.

Cornwall.—The Visitors here decided to enlarge the accommodation, as the asylum has occasionally been so full that urgent cases had to wait for admission.

Crichton Royal Institution and Southern Counties Asylum.—This is Dr. Adam's first report, and is a satisfactory record of many minor changes, all apparently in the right direction.

For the private patients there is now a seaside residence. During the season about 30 ladies and gentlemen enjoy the benefit of a change to it.

The general health was good, and the mortality low, in spite of very severe weather. No doubt these satisfactory results are at least partly attributable to the efficient warming of the building by the circulation of hot water.

Cumberland.—Extensive structural alterations and enlargements are in progress.

Concerning imbeciles, Dr. Campbell remarks :—" I have noted that 4 congenital imbeciles were admitted, and as each year a certain number of this class are sent to the asylum (where they generally have to remain for life), at ages varying usually from 13 to 21, untrained imbeciles, who have resided at home until they gradually became unmanageable, or had a slight attack of excitement. These prove the most troublesome and disheartening cases that come into asylums ; the period at which they could have been taught is past, the simplest requirements of decency and cleanliness are unknown to them, and if any aptitude for acquirement is still present, it is speedily used to imitate the bad habits of some of the worst patients. It would be well, if it were necessary, that all imbeciles should at 7 years of age be submitted to some form of training which would promote cleanly and proper personal habits and tidiness, even though the higher education of their worst-developed organ was not the chief object."

Denbigh.—Mr Williams refers to the undesirableness of sending young imbeciles to an ordinary asylum, and proposes that a special institution should be provided for such cases in the Principality.

As to the use of beer, he says :—" In accordance with the statement made in the last report, we have discontinued the use of beer, except during harvesting, or other unusual operations. We have no reason to regret the experiment ; on the contrary, it has prevented jealousy amongst the inmates, whilst no ill result to either mental or bodily health has followed."

Derby.—This asylum is evidently under energetic and successful management. During the year numerous improvements, great and small, were effected.

Referring to the reception of private patients, Dr. Lindsay says :—" Only one private patient was admitted during the past year, at the urgent request of the relatives. Frequent applications for the admission of private patients continue to be received, under the belief

that there is some special accommodation at the county asylum for such cases, but there is no separate accommodation. A want is evidently felt in this county to meet the case of those of the lower middle class who are able and willing to pay a moderate sum, but whose means do not enable them to pay the charges of private asylums. I do not see that such want can be adequately met until some arrangement can be made to provide separate accommodation for private patients sent to pauper asylums, as recommended by the Lunacy Commissioners in their evidence before the Select Committee of the House of Commons on Lunacy Law in 1877, or by some provision similar to that contained in the Lunacy Law Amendment Bill of Mr. Dillwyn, now before Parliament. . . . .

"In Derby the relatives of insane members of a family occasionally express a wish to send their afflicted ones to the county asylum nearest home, the relatives being unable to pay the charges in private asylums, and being unwilling to see them removed by the Poor Law authorities to a pauper asylum in another county at a greater distance from home and friends, and to which they must go as the only alternative, in order to obtain the benefit of the pauper rate of maintenance. To meet this want, which is certainly felt (and perhaps to a greater extent than is known) by those above the pauper class, who are able and willing to pay the whole of the pauper rate of maintenance, the Committee of Visitors of this asylum have resolved to admit such cases from the Borough of Derby, as private patients, so long as there is room, at the same charge as for borough and out-county pauper patients, viz., 14s. per week, and to have the same accommodation as pauper lunatics, in accordance with the provisions of the Lunacy Act."

Devon.—Dr. Richard Davis, who had acted as assistant medical officer for $6\frac{1}{2}$ years with great efficiency and acceptance, died of typhoid fever. For many years there has been evidence that the asylum was not in a thoroughly sanitary state, and now the system of drainage is to be completely renovated.

By the introduction of the "Armstrong Abbotsford" grate, an improvement has been effected in the heating of some of the long and draughty corridors.

Dorset.—Continuous supervision of epileptics at night has at last been provided.

In Table IV. some of the percentages are incorrectly given.

A curious case is mentioned by Dr. Symes, that "of a young gentleman who had been suffering from epilepsy almost from birth. At times he was very liable to sudden and somewhat severe fits of temper, and whilst in a very excited state, his mother having threatened to send for the police, he took a pistol from his brother's room, and shot himself in the head. The ball was found embedded in the bone, which was much splintered ; it was extracted the second day after admission, and a good recovery was the result. His fits

were very few and much less severe whilst here than for many years past, and, after a residence of two months, he was discharged." It would have perhaps been better for society had a dangerous lad like that been detained during his natural life.

Dundee.—The only fact calling for notice is, that an assistant medical officer has been appointed. We would suggest as one of his duties that he prepare the annual statistics, and, in doing so, arrange them according to the tables recommended by our Association.

Fife and Kinross, 1880-1.—A melancholy interest attaches to this report. It is the last prepared by Dr. Brown, a man well known to not a few of us as possessed of many good and admirable qualities. His fate was a very sad, not to say hard one, removed when enjoying health and vigour, happy in his work, and looking forward to years of honest labour, which, like virtue, is its own reward.

His report to the magistrates is brief, and touches on no point of special interest. It notices the evil effects of the Government grant in aid, by which patients are unnecessarily sent to asylums. Seventy-four patients were admitted, and of these four were general paralytics, "the largest number of pauper patients ever admitted during any one year labouring under this disease." The general character of the cases admitted was bad. Amongst the physical causes, alcoholic excess equalled 12·1 per cent. of the whole. A new wing has been erected for female patients, and is now in use.

The "open-door" system has undergone further development. Dr. Mitchell says:—"Only one division on each side is now locked. These two divisions contain 32 men and 22 women, and it is believed that, when the overcrowding is relieved by the occupation of the new building, there will not be more than 40 patients in all who require to be kept in divisions with locked doors. Only three times during the whole visit was a key used in opening a door."

Glasgow Royal Asylum.—The following paragraph from the Directors' report is important, as showing that they continue to consider the unhappy condition of the insane of the poor middle classes and of their relatives:—

"As regards private patients, on the other hand, the admissions are 99 in number; and the patients of this class have been more numerous than in any previous year. Many of these are at low rates of board. The *pauper* lunatic is provided for by the rates, and the wealthy lunatic can purchase whatever accommodation he requires, but when in a family with limited means a case of insanity occurs requiring asylum care, the providing suitable private accommodation entails on them a heavy burden. This class of cases has had the careful consideration of the Directors, and they have adopted a reduced scale of charges as applicable to them. The relief to the relatives of patients which has in this way been given has been highly appreciated, and gratefully acknowledged."

It is to be regretted that the accommodation for pauper patients is

so inadequate, and that Dr. Yellowlees is obliged to report :—"The admission of pauper patients on the other hand is practically suspended by want of room, and only 14 of this class could be received during the year. Of the 283 pauper patients resident at its close, very few indeed present any reasonable hope of recovery. The institution, doubtless, affords them a safe and comfortable home, but unfortunately their presence excludes the new and curable cases constantly arising in this class of the community, and thus tends to lessen, as regards pauper patients, the real usefulness of the asylum as a place of cure." It is to be hoped, though it is not stated, that the pauper lunatics, for whom there is no accommodation at Gartnavel, are sent to some other asylum, and not allowed to degenerate into incurable cases by being allowed to remain with their relatives, or by being sent to the lunatic wards of workhouses.

Amongst the admissions were two brothers, whose past lives had been wholly different, each of whom believed himself to be Christ, and whilst each recognised his brother's delusion, he held firmly to his own.

Gloucester.—At the time the Commissioners made their annual visit there were 658 patients on the books, and of these 300 did not go beyond the airing-courts for exercise. This cannot be deemed satisfactory.

Hereford.—Relative to lunacy in this county, Dr. Chapman writes :—

"Herefordshire has for many years had the largest proportion of lunatics to population of any English county, and from this with other circumstances I have concluded that the accumulation of the insane (I do not like to use the phrase 'increase of insanity,' as that involves a theory, and one moreover that I believe to be erroneous) has reached a more advanced stage in Herefordshire than in some other counties, rather than that Herefordshire people were more liable, or at any rate so much more liable, to lunacy than others.

"The fact that the present number of Herefordshire patients in the asylum presents the ratio towards which other counties are tending, viz., the limit of accumulation with a 10·6 per cent. mortality, is confirmatory of this opinion. Our low mortality owes one element to the circumstance that our accumulation has reached this point, and when the accumulation in other counties has advanced as far the general mortality will no doubt likewise fall below 10·6, and further postpone the attainment of the real limit.

"If it be asked why Herefordshire occupies this position, the first step towards a solution is found in the circumstance that in this matter Herefordshire stands at the head of a group of agricultural counties with a large proportion of lunatics ; and that the counties remarkable for a low proportion of lunatics to population, but a rapid rate of increase of their lunatics, are urban, and more especially mining and manufacturing. We may therefore conclude that to

some extent, perhaps, the better health of an agricultural community affecting its insane members, as well as others, gives that lower mortality which is a chief element in a large accumulation; but to a still greater extent, the agricultural population being a nearly stationary one, has largely done its work of accumulating its insane; whilst in the mining and manufacturing districts, though the stationary nucleus of population may have done the same, the increasing part of the population has only just made a beginning of the process."

Ipswich.—The following suggestion by Dr. Chevallier has often been made; and though the object is good, it is to be feared that in many cases the information supplied by the parish medical officers would be of no more value than that at present filled in by the Relieving Officers. The best method for obtaining reliable information is to compel the attendance of a relative or friend who has intimate personal knowledge of the patient.

Dr. Chevallier's suggestion is:—"Should there be any alteration of the Lunacy Laws, I trust that some of the particulars now supplied by the Relieving Officers in the case of pauper patients may be required of the medical practitioners who sign the certificates, especially as regards the causes of insanity. This should be regarded as a scientific question to be carefully and deliberately answered after due investigation. Under present arrangements a large number of the statutory statements give '*unknown*' as the supposed cause of insanity, whereas it might, without much difficulty, be ascertained by medical men in attendance upon the cases, and often acquainted with the family history, that some of the relatives had been insane, or that intemperance, or domestic troubles, or bodily illness, had preceded the attack, and were probable causes, either separately or in combination."

The water supply is not satisfactory. In case of fire the results might be most disastrous.

The following is an amusing slip by the Commissioners:—"The provision of tell-tale clocks for the use of the epileptic night attendants in either division has not been made."

Isle of Man.—That this asylum is seriously overcrowded is evident from the following paragraph in Dr. Wood's report:—

"The health of the patients has been as good as could be expected under the circumstances. The occasional outbreaks of diarrhœa, conjunctivitis, boils, &c., which have been noticed, have been in a great measure due to the vitiated state of the atmosphere in the seriously overcrowded wards. There has been one case of erysipelas, resulting in death, and it is a question how far this result was due to the same cause. As this has been alluded to for so many years by your medical superintendent, I shall not on this occasion say more than point out that this overcrowding cannot continue longer without grave responsibility resting upon the authorities. An outbreak of epidemic disease

may occur in consequence, and the health of the patients is suffering. There are 153 patients (90 women and 63 men), and 22 nurses, attendants, and servants—making a total of 175—living in day rooms large enough for 63 only, which leaves a balance of day room space owing for 112 people, viz., 75 women and 37 men. In addition to this, there are 17 beds short on the female side and three on the male side. In considering the erection of buildings necessary for the relief of this overcrowding, I would strongly advise the Committee to make provision for the future requirements of the island. The want of accommodation also for paying patients should not be lost sight of; it is greatly needed, and would supply a want long felt by the better classes in the island. Numerous applications have been made to me from time to time for the admission of persons able to pay for their maintenance, which would have been a source of considerable profit to the institution; but the want of the necessary accommodation has prevented their reception.

"I have carefully considered the question of boarding out some of the patients, and I have come to the conclusion that, considering the past history of the home treatment of the insane poor of this island, it is not advisable to revert to the condition of things which existed prior to the erection of the asylum, and that, with regard to the condition of those insane persons found insane by inquisition, and who are living under the care of their committees, I would strongly (urge) upon the authorities the absolute necessity of having such cases registered and placed under surveillance by being visited from time to time by some competent and independent person, so that their health, food, clothing, and any special treatment they may require may be properly attended to, and that the money paid for their board, &c., may be judiciously expended. No person should be allowed to keep a lunatic for profit without being registered, and under the control of some properly constituted authority. In other parts of the United Kingdom this is strictly enforced."

Kent. Barming Heath.—As the result of abolishing beer as an article of diet, Dr. Davies is of opinion that "the wards are much quieter than they have ever been before. The patients are cheerful without being noisy, and they certainly work better. Their general health has been good, and there is a marked diminution in our death rate, to which, however, I do not attribute much importance, as it may be explained in other ways. However, for the improved condition of the patients generally, the diminution of violence, destructiveness, and noise, I think the abolition of the issue of beer is mainly to be credited."

For beer the patients receive water. The attendants receive £4 per annum, the laundry attendants £3, and the female attendants and servants £2 instead of beer. Many have become total abstainers, and have contracted habits of thrift.

A system of heating the single rooms in the old building by means

of hot water pipes has been commenced, and, as far as completed at present, works in a most satisfactory manner.

It would be well if the statistical tables recommended by the Association were adopted in this asylum report.

Kent. Chartham Downs.—The report by Mr. Spencer is unusually short; and those by the Committee to Quarter Sessions and by the Commissioners are not given. These should always be given, and it would be well if all the Association tables were used.

Hull.—The new asylum is now in course of erection. The admissions during the year were of a very unfavourable character; but the mortality has diminished from 24·22 in 1879 to 14·37 in 1880.

Relative to the high death-rate, Dr. Merson says:—"In my last report I discussed fully the several causes which at present tend, in my opinion, to raise the death-rate of this asylum as compared with similar institutions. The points of chief import in this connection, to which I then directed your attention, were briefly these: (1) the great prevalence of general paralysis; (2) the large proportion of recent and acute cases which furnish the majority of deaths to the permanent and chronic population, among whom deaths are comparatively rare; (3) the fact that a very large proportion of patients are brought to the asylum only in the last stage of brain disease, and in a hopelessly reduced condition of bodily health. The great prevalence of general paralysis will be apparent from the fact that 39·13 per cent. of the entire number of deaths were due to this cause; in other words, this disease alone accounts for a death-rate of 5·65 per cent. on the average daily number resident, or more than half the average death-rate of borough and county asylums; but even this is an improvement on last year, when general paralysis alone furnished a death-rate of 8·69 per cent. on the average number resident."

Killarney.—In this report Dr. Woods repeats his protest against the abominable system of sending the majority of pauper lunatics to the asylum as criminals. This is a matter in which the Irish superintendents should exert themselves.

Ireland must indeed be in a disturbed state when a Committee of Visitors decides that an improved water supply, urgently required, cannot be gone on with because of "the state of the country."

The Irish Inspectors have of late been rather sorely chaffed as to the blunders in their reports. The word "becomingness" is used in a curious way in the following sentence:—"I am particularly gratified at the uniform cleanliness of the dormitories, and their free ventilation; also, the goodness and becomingness of the bed clothing."

Lancashire. Lancaster.—Several important additions and alterations are reported as being in progress or completed. An entirely new system of drainage is contemplated. It is evident that this is necessary, as the deaths for 1880 include eight from dysentery and diarrhœa and three from erysipelas.

The following paragraphs from Dr. Cassidy's interesting report

deal with subjects much discussed at present, and are on that account important :—

"With regard to the 159 patients discharged recovered, it will be seen by Table V. that 88 were recoveries from first attacks which had not lasted more than twelve months prior to admission, whilst the remainder were of the other two classes before specified. Such recoveries as those in the latter category must of course be taken for what they are worth. They are, in fact, relapsing cases, and nearly all will probably become again more or less frequently asylum inmates. Nor should it be concealed that even among the 88 primary recoveries many will probably relapse, and some will die insane. This suggests forcibly the consideration that the care and alleviation of the condition of the general body of the insane is at least as important a function of asylums as is the so-called 'cure' of a small percentage of cases, few of whom remain permanently sane. It also suggests the futility of making artificial distinctions between the curable and the incurable insane.

"Experience shows that about the same percentage of recoveries takes place under very varied modes of asylum treatment, with restraint and non-restraint in large asylums, and in small ones with stimulants, Turkish baths, and all the modern scientific paraphernalia, and without them, notwithstanding that such differences in treatment do undoubtedly affect the general well-being of the patients, their health and comfort, and the death-rate of the asylum.

"But, on the other hand, the doctrinaire movement for establishing special hospitals for curable cases, while tending to improve the treatment of one class, would distinctly tend in disfavour of another, and greater, by implying that their necessities and the means required for their proper care are much less. I do not wish to depreciate the importance of recoveries, inasmuch as the interval of sanity, in relapsing cases, is sometimes a very prolonged one, and is practically of great value to society, but I think that the general direction of the current of progress in the past years of this century, which has been directed towards the improvement of the condition of all classes of the insane, should not be lost sight of, and should still steadily be followed. I believe that if improvements are wanted in our Lunacy Laws, they should be such as would tend to increase, if possible, the number of recoveries, which can only be by such means as will facilitate the admission of patients into asylums by the removal of unnecessary restrictions."

Dr. Cassidy makes various suggestions for carrying out his views. They are exceedingly reasonable, if not new, but they would never satisfy those who carry on the present agitation against the Lunacy Acts.

Lancashire. Prestwich.—The heating of the wards by steam has been extended throughout the buildings, adding much to the comfort of the patients.

The report of the Commissioners is very complimentary to Mr. Ley, who has done so much to render his asylum a model of comfort and of tasteful decoration. That these conditions react favourably on the patients is well known, but it may be not amiss to reproduce Mr. Ley's account of his experience at Prestwich.

"A considerable proportion of the inmates, when not employed in industrial pursuits, walk during the fine weather within the grounds, and more select cases are allowed the privilege of exercise in the neighbourhood; so far as it is practicable, these privileges are extended to all classes, even to the most disturbed. The greater amount of personal liberty now happily accorded to the insane, though doubtless open to some risk, has on the whole been attended with much benefit, and has markedly increased the general well-being and contentment. The comparative quietude and freedom from excitement which usually prevail throughout the institution may, I think, be fairly attributed to the lessened restrictions on personal liberty, to the constant attention paid to occupation and recreation, and to the various improvements and additions which from time to time have been made in the patients' comforts and surroundings. It has often been remarked, and the experience of this asylum bears out the fact, that among all classes of the insane, the tendency to noise and turbulence, to destroy furniture, to dirty and destructive habits, is much controlled and lessened by adding to their comforts, and by increasing the attractions in their wards and living rooms. Among no class of patients has this satisfactory result been more apparent than among the so-called refractory patients. A few years ago the wards used by this class were improved and modified at a comparatively trifling expenditure by the labour of the patients and the staff. Large bays with glass roofs were added to each ward, the dark and gloomy day rooms were made bright by additional windows, and enlivened by a few pictures and plants, and some inexpensive decoration and ornaments. The increased light and space thus secured were important gains in a sanitary point of view, and proved valuable adjuncts in the moral treatment. Both patients and attendants felt the change. The former were brought more into view, their supervision was rendered more easy, and their habits received closer attention. The insane, as a rule, are as sensitive as their saner brethren to the influence of bright surroundings, and soon a marked improvement manifested itself in the disposition and deportment of many who were previously noisy, irritable, and intractable. The increased cheerfulness and comfort seemed to exercise a soothing effect, developing their powers of self-control, subduing their tendencies to boisterousness, and reducing their outbreaks of violence to a minimum."

Lancashire. Rainhill.—The following paragraphs in Dr. Rogers' reports show the necessity of some uniform plan in preparing statistics. Whatever may be the rule, it is not the invariable practice to class the "not insane" among the recoveries. Neither is it always,

though it is very frequently, done, to include general paralytics among the recoveries, because the mental and physical symptoms have for the time disappeared.

"Eighty-five patients have been discharged as 'recovered,' including three who were certified as not insane on admission, who are classed as recovered because they are included under this heading in our official return, those sent out because the orders were defective being classed as 'unimproved.'

"The recoveries also included a case of general paralysis in whom all the mental symptoms had subsided for some months, though there is too much reason to believe the disease to be latent rather than cured. If the man can earn his own livelihood for a year or two, there does not seem sufficient reason to detain him all that time in an asylum."

As to the causation of insanity, Dr. Rogers finds that intemperance acted as such in 30 per cent. of the men and 10 per cent. of the women. He cannot accept the theory that drunkenness is often an effect of insanity rather than a cause.

Lancashire. Whittingham.—Numerous important improvements and additions continue to be effected. The heating of the wards by steam is being carried out, as it was found impossible to keep up a sufficient temperature by open fires alone. In Dr. Wallis's words, "The temperature of the wards and corridors has been many degrees below the proper standard, averaging 40 deg. Fahrenheit for days together in spite of fires incessantly looked after. It is not to be wondered at under these circumstances that we should have had a number of cases of pneumonia, bronchitis, &c., when the well-marked proclivity of the insane for diseases of the organs of respiration is taken into account."

Leicester. Borough.—The general health was good during the year, but a typical case of scurvy occurred in a woman who had long abstained from vegetables and almost all other food. She made a good recovery.

The percentage of deaths on the average number of males resident is given as 12·3—an evident slip for 12·8.

Leicester and Rutland.—In their report the Committee of Visitors pay a warm tribute to the memory of the late Mr. Buck, who during the twenty-seven years of office did such excellent work.

The arrangements to build a new asylum on another site have fallen through. The threatened creation of County Boards has been the cause of this good work being postponed. For the welfare of asylums, it would be well if that dreaded County Boards Bill made its appearance, so that the present Committees might know the worst. Whatever the feelings of medical superintendents may be on the subject, it cannot be denied that most county magistrates view the bill with horror, and are so overawed by its threatened advent that they fear to expend money on alterations and improvements manifestly required.

Limerick.—In this report Dr. Courtenay returns to a consideration of the influence of trade depression on asylum admissions, and says :

" In my last annual report I drew attention to the effect which the depression of trade, experienced during 1879, would likely have in increasing the number of admissions, the friends of the insane being obliged to send them to the asylums in order to be relieved of the cost of their maintenance at home, and this, to a certain degree, has taken place, resulting in the number of admissions having increased from 85 during 1879 to 104 during last year. Not only so, but the class of cases admitted were of a very unfavourable type, both as regards their mental condition and the duration of their insanity—in four cases the disease had lasted over twenty, in seven over ten, in eight over two, in three over one year before admission.

" How far the depression in trade has had the effect of checking excesses in the use of alcohol, and thus diminishing the number of attacks of insanity resulting from this cause, is a question which cannot be settled from statistics taken from so small an area, and during so short a time. The difficulty experienced in ascertaining the true history in each case renders it a doubtful matter to ascribe the cause to any one factor. I find, however, that during the past year, in eleven cases, alcohol was supposed to have, at least in part, produced the disease."

The asylum is in process of having a hot water heating apparatus fitted up. When completed it will be a most important improvement.

Lincoln.—The mortality in this asylum is high, and has been so for several years. It has not been below 10 per cent. on the average number resident since 1865, and has been as high as 16·2 per cent. For 1880 it was 15·1. Out of a total of 90 deaths, 11 were due to apoplexy, 12 to general paralysis, 18 to phthisis, 9 to disease of the heart, and 10 to senile decay. Only two deaths occurred which point to defective sanitary arrangements, one from typhoid fever and another from choleraic diarrhœa. The origin of the fever case could not be discovered, but Dr. Palmer intimates the early consideration of some sanitary improvements.

Lincoln Lunatic Hospital.—This institution is evidently under good management. The Commissioners report exceedingly favourably of it, and yet there were only 56 patients resident at the end of the year, and there is accommodation for about 80. The Commissioners say that it only wants publicity to ensure its filling. It should advertise and enter into competition with private asylums.

It is to be regretted that no report by the medical superintendent is published. In an annual report it is not only seemly but very desirable that the man really responsible for the active management of an asylum should state for himself what has been done during the year.

London, City of.—It would appear as if the " open-door " system had not yet reached Stone, for in Dr. Jepson's report we read : " A

portion of the boundary wall near the laundry, which afforded special facilities for getting away, has been raised, and increased security is the result." A boundary wall never was intended to keep patients in; its proper use is to keep the public out. Most asylums situate in the country, and thus free from the visits of idle and inquisitive people, have no boundary walls, and do quite well without them. Is it not a false security to rely on the height of a wall? This by the way, however. The asylum is evidently under excellent management.

Middlesex. Banstead.—This asylum no longer limits its admissions to chronic, incurable cases. Patients are now admitted direct from the parishes, and although the building was not constructed for the treatment of acute and probably curable cases, little inconvenience has arisen. In only seven cases has it been necessary to send specially troublesome cases to Hanwell or Colney Hatch.

The treatment of these cases must involve extra work on the medical staff. It is, therefore, surprising that, at Dr. Shaw's suggestion, it should have been reduced by the discharge of the third assistant medical officer.

It is very satisfactory to note in the Commissioners' report that Banstead Asylum "is now governed under general rules which place the medical superintendent in a proper position for control of the whole staff." That is an arrangement which might with great advantage be introduced into the other Middlesex asylums.

Middlesex. Hanwell.—Some important structural improvements have been effected. A detached chapel has been erected, capable of seating 900 persons. The old chapel has been added to the amusement hall. These works have cost fully £9,000; but all acquainted with asylum management will consider the money very well spent. New workshops are next to be built. The number of patients usefully employed is now so large that the present shops are found to be inadequate.

Mr. Richard reports that "The principal causes of insanity in 143 cases out of the 175 admitted, in which we were enabled to get a more or less accurate account of the patients' illness from their friends, were mental anxiety, grief, and poverty, the puerperal state, the change of life, and old age. Fifty-one, or 35 per cent., had distinctly hereditary taint; and 33, or 23 per cent., had had previous attacks of insanity. Intemperance as a cause was traced in 14 cases only."

Dr. Rayner agrees with his colleague that the patients at Hanwell are now exceptionally difficult of management. "Hanwell, with Colney Hatch, differs from most county asylums in containing only 40 in place of 60 per cent. of the insane population of the county. The 20 per cent. of quiet cases, which in other asylums serve to dilute the more excitable, are accommodated elsewhere. Hence it may be estimated that the 750 male patients in this institution would represent the excitable element of upwards of 1,100 patients in an average county asylum."

The suggestion made by Dr. Rayner that there should be a clinical clerk to assist in the medical work errs in its modesty. When it is remembered that there is only one assistant medical officer for 750 more or less acute and excited cases, it is obvious that the medical staff should be strengthened by another assistant and at least two clinical clerks.

A serious assault was committed by a patient on Mr. Wright, the senior assistant. Under the delusion that he was tortured at night, with the knowledge of the medical officers, the patient secreted a nail, sharpened it, and attacked Mr. Wright. The weapon penetrated both cheeks, and forced out a molar tooth.

Monmouth, &c.—Does not the following passage in the Commissioners' report condemn the general principles on which the insane are treated in England? It is to be feared that the English system is too severe, and perhaps the Scotch is too free, a hobby carried too far; but why may there not be a happy union of the two?

The paragraph is as follows: "We were much struck with the appearance of the patients at the cottages, and on the farm. They all were old chronic cases, and are living under conditions which must make their life as little asylum-like as possible, and they appear to have just that amount of care and supervision which their state requires." If the cottage system is right, the barrack system must be wrong. It is only necessary to see the enormous buildings erected in Lancashire for chronic cases to be convinced that they are built on evil principles. No man or woman should be condemned to be a unit amongst 800 or 1,000 patients if it be at all possible for him or her to dream life away in a cottage.

Montrose.—Important structural alterations and additions are still in progress. As far as the funds permit, this "asylum steadily discharges an important charitable function in regard to private patients who cannot pay high rates of board. Admission has never been refused to any patient in this position who comes from the counties of Forfar, Kincardine, Caithness, or Shetland; this is from any county which sends its pauper lunatics to the asylum. The rate charged for many of these private patients is very low. There are 29 of them who only pay £25 a year, which is below the average pauper rate for the county. Many others pay a rate varying from £25 to £36."

Amongst those discharged recovered were two patients who had been in the asylum nine and twenty-one years respectively. Concerning them Dr. Howden writes:—

"The first was that of a young woman who laboured under violent mania on admission. She continued in a very excited state for about six years, and then gradually sank into a condition of apparent imbecility, from which there seemed little prospect of her ever emerging. Contrary to expectation, however, in about eighteen months she began to waken up; at first her conversation was very limited, and her capacity for work equally so; slowly, however, her intelligence and former

active habits returned, and eventually she was discharged quite recovered. The variations in the weight of the body at the various stages of illness in this patient were remarkable. When admitted she weighed 109 lbs. ; during the first two months of the excited period she lost 5 lbs., and continued to lose weight for long after ; cod liver oil and extra diet were administered, and as the excitement passed off, and the apparently fatuous stage set in, she became rapidly very stout, and continued so till her discharge, when she weighed 180 lbs., or over five stones more than when she was admitted. The other was that of a man admitted in 1860, labouring under deep melancholia accompanied by many delusions. Two years after admission he was reported to be demented, and it is noted that 'he rarely speaks ;' in 1864 he is said to be 'quite demented and dumb.' In 1868 he appeared to be in the same condition mentally, but he had begun to assist the attendants in house work. In 1870, when suffering from pain (as from toothache or colic), he spoke, but when he got better he was again dumb. In April, 1875, he began to speak in a barely audible whisper, and continued to do so for several months. His normal power of speech and intelligence were then gradually restored, and in 1878 he was able to work at his trade in the asylum workshop. It was evidently an error to suppose that during the dumb stage of his illness he was demented in the ordinary acceptation of the term, for during the latter part of it, at any rate, he did intelligently what he was told, and though he did not speak, he expressed his wants by signs and sometimes in writing. On recovery, thirteen years seemed to have been a complete blank in his existence, and on leaving, it appeared to him that he had been only six or seven years in the asylum. His loss of speech did not seem to have arisen from want of memory of words or their meaning, nor from paralysis of the muscles employed in articulation, but from a nervous feeling that he had not the power to give expression to his thoughts in articulate sounds. The ultimate complete recovery of these patients shows how careful we should be in stamping the brand of incurability on chronic cases, even though apparently hopeless."

Norfolk.—The auxiliary asylum is now in use and in charge of an assistant medical officer.

Three patients and a nurse were attacked by typhoid. Under the room which they occupied an unused drain allowed sewer gas to escape. A thorough examination revealed many serious defects in the drains.

On the beer question Dr. Hills writes : "The substitution of water for beer at dinner has been in operation upwards of a year, and nothing has transpired to cause me to regret having taken such a step ; on the contrary, I wish I had done so years ago, when I first contemplated it. We have not, in any instance, discovered loss of weight or strength ; indeed, some patients have become stouter, and many have keener appetites. We have likewise found

all the allowance of food eaten, whereas, when beer was drunk, this was not the case. I have also given milk freely instead of porter to the invalids."

Northampton.—There are always two sides to a question, even as to the proper method of heating a room. As we have already praised what has been done in some asylums to secure comfort and health, we give the following paragraph from Mr. Greene's report, as it condemns what has been found useful and beneficial in several asylums. He says :—

"One of the most important points in the management of an asylum is the keeping of the wards at a proper temperature, and at the same time providing a pure air to breathe. The system inaugurated last year is being gradually extended, and is found to answer well. The large wards are supplied with slow combustion stoves, which are kept burning throughout the night, and are allowed to smoulder during the day. In the morning, when leaving the dormitory, and when the cold is most felt, the patient has a warm room to sit in, while fires are being lighted in the open grates. It seems to the medical superintendent that the above is the best method of obtaining the object in view, and he is satisfied that enclosed stoves or hot water pipes are injurious to health, and ought never to be relied on in any room habitually used (though very useful in passages, dining halls, &c.), for the reason that these and all similar apparatus heat the air which is breathed, while the rays from an open fire resemble those from the sun in their effects. The English method of warming rooms is, therefore, not only the most cheerful and healthful, but it is also the most natural and scientific, though unfortunately not the most economical, as far as regards the consumption of coal. All the fireplaces in the day rooms have now been remodelled after a form which secures a greater amount of heat with a smaller consumption of coal."

Northumberland.—The following paragraph from Dr. McDowall's report indicates a desirable form of charitable work, at present almost entirely neglected :—

"This reference to charitable interest in the insane reminds me that a good work might be carried out in this county by a systematic supervision of the patients discharged from the asylum upon recovery. There is no doubt that many of these persons have great difficulty in finding employment when they return to their district, and the hardships they undergo not unfrequently produce a relapse in their condition. As a rule, a recovered patient has some kind of home ready to receive him, but sometimes he has not. To such I can give little real assistance. To give him a suit of clothes and a few shillings is all I can do before the gate is opened and he is allowed to walk off where he likes. There is a small fund for the relief of such cases, chiefly subscribed by the officers, and it has occasionally enabled me to relieve a man in great want. But such occasional acts of charity are not sufficient ; they are only a portion of a good work which lies ready to

be taken up by the benevolent. It is not easy in the present day to indicate a new method of doing good, but here is one virtually unknown. With the exception of a small society in London, I do not know of any other for the purpose. Should my suggestion be taken up, I shall be ever ready to give such assistance as shall help to make the work a real benefit for a sorely afflicted and comparatively helpless class of people."

Nottingham Lunatic Hospital.—It is very satisfactory to learn that this institution, which appears in every respect to be in excellent working order, is about to be enlarged by the addition of accommodation of forty patients, twenty of each sex.

Nottingham. Borough.—This asylum is already practically full, although it has not been a year open. The boundary of the borough has been extended, and the included population nearly doubled.

We would earnestly beg Mr. Powell to adopt the statistical tables recommended by our Society. In table 2 there is an evident misprint—2 for 12.

Oxford, &c.—It is greatly to be regretted that the Committee still refuses to pension old servants. The Commissioners point out the necessity for a temporary medical assistant when one of the medical staff is away on his holidays. It is impossible for one man to perform all the medical and administrative work of an asylum containing 500 patients. He may do it for a day or two, but certainly not longer than a week.

Portsmouth.—This the first report shows that the asylum is rapidly being got into working order, and that defects, which could only be detected when the building is in use, are being remedied as speedily as possible. We hope that Mr. Bland will in future use the Society's statistical tables, and make every effort to secure accuracy in the figures. In the table on page 11 the number of patients recovered is 40 : 34 pauper and 6 private. On page 14 the number is given as 48 in the table showing the length of residence in those discharged recovered and in those who have died.

Richmond District Asylum.—Want of space compels us to notice but briefly Dr. Lalor's interesting report. We would gladly have reproduced his remarks on the abolition of single rooms. It must always be remembered that such accommodation can be used by others than the dirty, noisy, and disagreeable. Single rooms without shutters are greatly appreciated by patients for their privacy and quiet. Even boys at school object to the dormitory system, and asylum patients often do so very strongly. To most people it is not pleasant to occupy a room with 20, 100, or, as occurs in one asylum, 200 strangers.

We are glad to know that Dr. Lalor's interest in the Asylum School is unabated. Those who wish to understand its value ought to visit it, and to read the article by Mr. Fox upon it, in the present number of the Journal.

The following curious paragraph occurs in Dr. Lalor's report: "I

have no report to submit from the inspectors of any inspection made by them in 1880, and as the same has been the case for some years back, it appears to me only right that I should supplement the absence of such documents by reports of visitors to the asylum in the last three years ; and as these reports are very generally from persons of experience in asylum management, and many of them well-known authorities, I hope the institution will not suffer in its character from the want of official reports."

It would be well if, in next year's report, Dr. Lalor explained the reason of the inspectors omitting to visit the Richmond Asylum. To persons non-resident in Ireland such a state of affairs appears inexplicable. The management and general condition of Dr. Lalor's institution are so well known that they may fairly be said to be above criticism. It is nevertheless absolutely necessary, for the satisfaction of the public conscience, that all Irish asylums should be inspected by the proper officials.

(To be Continued.)

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2. *French Retrospect.*

By J. G. McDowall, M.B.

(*Continued from Vol. XXVII., p.* 601.)

Visit to some Lunatic and Idiot Asylums in Holland. By Dr. Billod.

This paper contains not only an account of some of the Dutch asylums, but a short *résumé* of the system of management and inspection. Their condition and arrangements appear to be good, and are very favourably spoken of by Dr. Billod. None of his remarks, however, call for special notice here, except one, which is an amusing commentary on the opinions of those who see in Gheel and similar colonies the perfection of asylum treatment. When at the Utrecht Asylum he saw two private patients who had escaped from Gheel in order to return to Utrecht, where they had formerly been under treatment.

The method of secluding violent patients in places very like cages is most objectionable. Most persons will agree with Dr. Billod that restraint is preferable to such a method of treatment.

Clinical Study of some features of Lypemania. By Dr. H. Mabille.

This paper is divided into two sections. The first is devoted to observations on the pulse, respirations, temperature, and arterial tension; the second to the loss of sensibility of the digestive canal.

Part I.—Writers differ as to the condition of the pulse and temperature in melancholiacs, and rightly so, for according to circumstances which Dr. Mabille points out and explains, they vary

independently of the mental symptoms. He believes he may conclude from the observation of ten cases, the details of which are carefully given, that in the different forms of lypemania there are not only differences in the delirium and its intensity, but also in the activity of the locomotor apparatus. He accordingly divides his cases into three groups :—

1. Lypemaniacs without suspension of locomotion.
2. Lypemaniacs with incomplete suspension of locomotion.
3. Lypemaniacs with almost complete suspension of locomotion.

What are the conditions of the pulse, &c., in each group ?

In the first, the maximum temperature was 37·5, the pulse 92, and the respirations 20. Arterial tension normal. The minimum was 37·1, p. 64, r. 16. The conditions were in short normal. The delusions were not powerful enough to suspend the bodily activity of the patients, who worked, walked, &c., very much as if nothing ailed them.

In the second group, comprising the patients in whom the bodily activity was partially suspended through the powerfulness of the delusions, the results were :—

T.—Maximum	...	37°	Minimum	...	36·4°
P.	„	...	64	„	...	52
R.	„	...	14	„	...	12

Arterial tension increased.

The third group includes those patients whose life is entirely passive. They never move voluntarily, never speak, eat little, or require to be fed. In them the following results were obtained :—

T.—Maximum	...	36·5°	Minimum	...	35·9°
P.	„	...	60	„	...	48
R.	„	...	13	„	...	9

Arterial tension much increased.

The author therefore concludes that the essential symptom in such cases is the existence or non-existence of active movement. To it he would attribute chiefly, but not entirely, the variations in temperature, circulation, respiration, and arterial tension, for in proportion as the motility diminishes the changes indicated arise. The same changes occur in health, and in diseases where bodily exercise is limited. The blood is imperfectly oxygenated, the circulation is thoroughly embarrassed, chemical changes throughout the body occur slowly and imperfectly, and as a necessary consequence the temperature is lowered.

It is very important to observe that whilst the frequency of the pulse is diminished, the arterial tension is increased. This exactly coincides with the law formulated by Marey that the frequency of the pulse is in inverse ratio to the tension. He showed that during the absence of muscular effort the pulsations diminish in number and the arterial tension increases, whilst that after muscular exercise the frequency of the pulse is increased and the tension diminished.

He does not wish to exaggerate the importance of the motor phenomena in the production of disorders of the circulation and calorification in lypemaniacs, and is careful to point out that they alone do not explain some of their symptoms. Two cases are thus given in detail. In the first there was complete anæsthesia of the whole surface of the body, and pricking with a pin was not followed by the escape of a single drop of blood. In the other there was anæsthesia of the left side (non-hysterical). Pricking with a pin failed to produce blood on that side.

In both cases the contraction of the vessels of the skin was due to irritation of the vaso-motor nerves; muscular movements were almost suspended; the pulse and temperature diminished; the arterial tension increased; and in the first there was marked increase in the temperature in the rectum. In health the rectal temperature is only a few tenths higher than the axillary, and in ordinary cases of lypemania the same thing is observed; but in the last case mentioned the difference was excessive. At the *post-mortem* examination great congestion of the viscera was found, due, in Dr. Mabille's opinion, to the driving of the blood from the periphery to the central organs.

In concluding this part of his paper, he briefly refers to, and opposes, the ordinarily received opinion that melancholic stupor is due to cerebral œdema. Then some exceptional cases are noticed, in which, anæmia being the chief symptom, there are rapid cardiac movements, though the pulse is small, almost imperceptible. The volume of blood is diminished; the quantity propelled by each cardiac contraction is small, and of necessity the heart must act more frequently.

Again, it is not unusual to observe in lypemania of the "anxious" form, violent movements of the body with great pallor of the face. There is intense precordial anxiety, respiration is tumultuous, the heart's action rapid. Along with acceleration of the pulse, there is enormous increase of arterial tension. Cyon's experiments explain these apparently exceptional cases.

A very important conclusion follows from the facts set forth by Dr. Mabille, viz., the result of the increased arterial tension in lypemaniacs. It is evident that the heart, having increased obstacles to overcome, must exert extra force, and, like all organs in such circumstances, it must become hypertrophied. Cardiac hypertrophy in melancholiacs has been pointed out by many writers—Esquirol, Bayle, Calmeil, and others. They attributed the mental state to the diseased state of the heart. But the fact is that, in place of being primary, the hypertrophy is secondary; and the more powerful the constriction of the vessels, the greater will it be. Further observations are required to confirm this, if correct, most important conclusion.

Part II. deals with the loss of sensibility of the alimentary canal in lypemaniacs. It does not equal in importance and interest the

portion we have given so fully, and it will be enough if his conclusions are reproduced :—

1. Besides peripheral anæsthesia, there is frequently in lypemaniacs, chiefly in those who refuse food, a partial or complete sensory paralysis of the alimentary canal, and its presence may be diagnosed with a fair amount of precision.

2. This paralysis appears to follow refusal of food.

3. Nervous exhaustion through want of nourishment, and the sudden distension of the stomach by alimentary substances (introduced by the stomach-pump), appear to be the chief causes.

4. This state of anæsthesia prevents assimilation, diminishes the forces of the patient, and, in spite of the ingestion of sufficient food, allows the continuance of the feeling of hunger, which, again, combined with the state of anæmia, increases the patient's mental symptoms.

5. These results may be avoided by prompt artificial feeding, the food being introduced slowly.

6. Tr. nucis vomic. will prevent constipation, and when anæsthesia is present, pepsine, nervous stimulants, and electricity will overcome it in the majority of cases.

Visit to the Asylum of Pedro II. at Rio de Janeiro. By M. F. Jouin.

This is probably the only asylum in the world directed by an emperor. It appears to be a pet institution of the Emperor and Empress of Brazil, and they take an active interest in all that concerns it. The site is grand, the building admirable, and the furnishings, &c., luxurious.

It contains between 330 and 350 patients, and though so small, is the only asylum in Brazil, an empire of about 5,000,000 people, with a capital containing 500,000 inhabitants. Is this exceedingly small number of lunatics to be attributed to the heat of the climate or to influence of race? M. Jouin thinks to the latter chiefly. He was much struck by the small number of negro patients. Rio contains about 250,000 negroes, but there were not more than 1 in 7 or 8 in the asylum, and these were idiots. He saw only one maniacal negro. More remarkable still, there was not a single representative of the Indians in the asylum. The great bulk of the patients were Europeans of recent importation, or those whose family residence in Rio went back one, two, or three generations. It appears, therefore highly probable that race, more than civilization, is a highly important, though, perhaps, remote, factor in the causation of insanity.

Acute cases predominate. Out of 203 males, 141 laboured under some form of mania. Only six were general paralytics, and they were of recent European importation.

The medical staff is large. There is the medical director; a physician and an assistant have charge of the males, and the women are equally well cared for. Another physician specially and ex-

clusively attends to intercurrent diseases. Then there is an apothecary and his assistant. In the asylum of Pedro II. there must be abundance of time for the medical staff prosecuting original scientific work.

"*La Folie a Double Forme.*" By Dr. Baillarger.

Only the first half of this paper has appeared, and it is devoted entirely to settling rival claims of priority in describing this form of mental disease. To the men engaged in this dispute it may be of surpassing interest, but to most workers in medicine events of thirty years ago are apt to fail in commanding attention. It will be well to wait for the appearance of the second half of the paper before attempting to condense what is already published.

Clinical Cases.

1. *General Paralytic with Hæmatoma of the Ear and Purpura Hæmorrhagica.* By M. J. Christian.

The patient had been a professor of languages in England. He had been at Charenton about three and a half years when some symptoms of scurvy appeared ; the gums became fungoid, and bled, and treatment was not quite successful in stopping the hæmorrhage. Then a hæmatoma developed in the left ear, and at the same time characteristic purpuric spots appeared on the trunk and elsewhere. Two months afterwards, when these symptoms had disappeared, he died in an epileptiform attack. Nothing special was found at the *post-mortem* examination.

2. *Case of rapidly fatal General Paralysis.* By M. Mabille.

For about three months the patient appeared occasionally distrait, but was able to attend to his business. Suddenly he became acutely melancholic, refused food, &c., and died in six weeks.

3. *General Paralysis.—Cysticercus in the right cerebral hemisphere.* By M. Baillarger.

During life there was no special feature of interest except that there were repeated incomplete attacks of right hemiplegia. Various lesions more or less common in general paralysis were found in the brain ; and in right hemisphere, at the union of the posterior and middle lobes, above the corpus callosum, there was a hydatid cyst, equal in size to the end of the little finger, generally transparent, but presenting at its extremity an opaque and solid white spot about nine millimetres in diameter. The vesicle was attached to the internal surface of the membranes, and was situate between them and the grey substance which it had depressed. M. Brocer examined the specimen miscroscopically, and demonstrated a cysticercus. The head had the double range of hooks and the four suckers, which leave no doubt as to its nature.

4. *Cases of Remission in General Paralysis after prolonged Suppuration.* By M. J. Christian.

The author gives the history of two general paralytics, in whom all symptoms, except slight dementia, disappeared after prolonged suppuration. From the observation of such cases he concludes that the early symptoms of general paralysis should be treated by setons, blisters, cauteries, &c., in fact by all the remedies which establish a lively revulsion to the periphery. In both cases the mental and motor symptoms disappeared together, a fact he considers as supporting his theory that the motor symptoms are secondary and consecutive to the mental state.

Medico-Legal Cases.

I.—Case of M. K., who demanded his immediate discharge from an asylum, on the ground that he was sane and illegally confined. In consequence of this demand, he was, in Jan., 1878, transferred to the asylum at Rennes to allow of his mental state being reported on.

M. K. had first been placed in an asylum in Sept., 1874, and was then found to have delusions of persecution which rendered him dangerous to his family and others. In 1878 he was 54 years of age, tall and well-built. His head was small but symmetrical. His tongue and hands were tremulous, and there was some loss of power in the muscles of the legs and trunk. His hands retained their full power. There was analgesia of the whole cutaneous surface. Questioned on the subjects of his delusions, M. K. was at first very reticent, but eventually declared his belief that his wife and children were plotting with his brother-in-law and his wife's aunt to deprive him of his goods, and that his wife was guilty of immorality with her brother and son; but, as a rule, his accusations were vague and confused. His memory was good, and apart from his delusions, his intellectual powers appeared normal.

The father of M. K., one of his sisters, and a niece had all suffered from delusions of persecution, and his eldest brother committed suicide. For years before being placed in an asylum he had been very intemperate.

After full investigation of all the facts of the case, and prolonged observation of the patient himself, it was concluded that he retained his delusions, was still dangerous to his friends, and ought to be detained in an asylum. His demand to be set at liberty was accordingly rejected.

II.—Case of Josephine Citoleux, charged with insulting a clergyman, with breaking fences, and with theft. In Dec., 1878, J. C. went to the house of the vicar of the parish, and after insulting him grossly, had to be removed by the police. Much excited at the time, she was examined by a medical man, who certified that she suffered from a monomania of persecution. Next day she became calm, and

in a few days was set at liberty. In Feb., 1879, she entered the court of the vicar's house, and broke some glass, and being further strongly suspected of having committed a robbery, she was again imprisoned.

In 1870 J. C. had been charged with setting fire to the house of her parents, and two years later was convicted of theft. In Jan., 1874, she was again convicted of theft, and in the same year was certified as insane when on trial for a similar offence. In April, 1875, she was again on trial for theft, and was again acquitted on the report of a medical man, but was sent to prison a year later on a similar charge. Imprisoned again in Sept., 1877, she was, for the eighth time, arrested in Feb., 1878, and the present inquiry as to her mental state was instituted.

J. C. had at all times been badly behaved, disobedient, and untruthful, and had, at different times, been certified as suffering from various forms of mental disease. Her father was a drunkard, and committed suicide, and one of her cousins had been for years in an asylum.

Direct Examination.—J. C. is 22 years of age, under middle height, and though well nourished, is pale and anæmic. Her thyroid gland is enlarged. Her palate is irregular in shape, and her teeth obliquely planted. Her speech is defective, and the two middle toes of her left foot are joined throughout half their length. She menstruates irregularly.

After admission to the asylum her behaviour was on the whole good; but on one occasion she was detected stealing. Questioned on her previous life, she persistently denied all actual crime, but admitted having on one occasion been unjustly convicted. She frequently asked to be removed from among the excited patients, and feigned illness to gain her end.

In April, at her menstrual period, she attempted to escape, but having injured her foot, was recaptured.

Conclusions.—1. The girl Citoleux is a degenerated being of very weak mind and greatly perverted morals.

2. Such being her condition, her menstrual periods produce a state of excitement, during which she is compelled to commit acts of which she is unconscious, and has lost freedom of will.

3. She ought to be considered irresponsible.

4. On account of repeated offences, which she will not fail to repeat, the accused ought to be kept under continual supervision.

III.—Case of F., accused of attempt to murder. The facts are as follows:—On the evening of the 19th Oct., 1877, the vicar of the parish of Saint-Germain-Louviers, whilst returning home, was shot at by a man whom he passed. Having on various occasions received threatening letters from F., he informed the police of the affair, stating whom he suspected. F. was arrested, and soon admitted his guilt; but accused the vicar of being unduly intimate with his wife, and of attempting to poison him.

On examination F. was found to be a man of 38 years, but looked 45. He had an expression of sadness, but smiled when spoken to, and replied readily. His memory was good; but he often digressed from the topic of conversation. He readily admitted having shot at the vicar, and appeared surprised when it was suggested that he was of unsound mind. F. had a brother who became melancholic, then demented, and died in an asylum.

F. had been a workman in the cloth manufactory. He married at the age of twenty-three, and lost his wife, to whom he was much attached, in 1870. Having two children, he wished to marry again, but was refused by the woman to whom he paid his addresses. After his wife's death F. began to drink, and soon after his second attempt at marriage he removed to Elbeuf, partly because his fellow-workmen teased him. Soon after his removal he married again, and lived comfortably with his wife for two years. At the end of that time he became restless and suspicious, and suffered from hallucinations of hearing. At first he told his wife he was afraid she was unfaithful, then that he was sure she was, and later, believing that she and her mother put poison in his food, he ate nothing at home. His hallucinations of hearing continuing, he left his home, afraid that his wife and her mother would stab him in his sleep, and wrote threatening letters to the vicar demanding a large sum of money from him. He also wrote an account of his life, recording his hallucinations. During this period he often changed his employment, his work being badly done, and he was regarded by his masters as weak-minded.

Conclusions.—1. F. is a chronic lunatic, suffering from delusions of persecution.

2. His illness dates long anteriorly to the crime.

3. The attempted crime was due to his mental state, and he is not responsible.

4. The nature of his ailment renders him a dangerous lunatic, and in the interest of public security, he ought to be detained in an asylum.

IV.—Case of A. J., accused of murder and wounding. A. J. was admitted to the hospital of Beaufort on the 20th May, 1878. On the night of that day he had three epileptic attacks, on the following night two, and on the third night one. Next day, on being pressed by one of the sisters to take his food, he suddenly attacked her with a knife, wounding her and two other sisters who came to her assistance. He then rushed into the women's ward, and stabbed patient after patient, until overpowered by the police. One woman died of her wounds almost immediately, and many of the others were dangerously injured.

Examined by a magistrate the same day, A. J. soon became excited, and was sent to the prison at Baugé, where on more than one occasion he became very violent, believing that people were trying to shoot him. When questioned on the crime he had committed, he had no recollection of it.

A. J. had been epileptic for twelve years, had been a heavy drinker, and more than once obviously insane. He was now reported as irresponsible, dangerous, and requiring constant supervision in an asylum.

V.—Case of Jaques C., accused of murder. J. C. settled in the village of Tessonières in 1849. He was a farmer, worked hard, and saved money. He lived unhappily at home, but was popular out of doors. More than once his first wife had to take refuge in the houses of her neighbours, and on one occasion he seriously injured his idiot child with a hammer, because its crying annoyed him.

Married again to a quarrelsome woman, his life became intolerable, and his wife often told her friends that some day her husband would kill her, while J. C. himself repeatedly declared that he would kill either his wife or her sister. J. C. at this time was looked upon as being eccentric, and was described by his mayor as a good worker, but of feeble mind, easily angered, and occasionally deranged mentally. He became low-spirited at intervals, and would then refuse to work, and then his wife would upbraid him as being lazy. On one such occasion, seeing his wife seated with her back to him, he suddenly seized a hatchet, and striking her blow after blow on the head, killed her almost instantaneously.

Immediately after the crime he appeared happy, and as if relieved, and directed his daughter in various matters of business. He told all who came that he intended to kill his wife, and now he had done it, as she made his life miserable, and accused him of being lazy. He appeared quite unconcerned, and invited his visitors to drink.

On being questioned, J. C. denied having heard voices urging him to murder his wife, or that he was overcome by an irresistible impulse. He had no delusions of persecution, and five minutes before the crime he was not thinking of it.

Conclusions.—The medical commission conclude that J. C. suffered from an intermitting form of insanity; that this malady, which, in favourable circumstances, might have remained latent, had been aggravated by unfavourable circumstances, and by the violent character and bilious temperament of the accused; that little by little his moral sense had become enfeebled, and the idea of murder arisen; and that consequently, an attack of derangement occurring, he had committed murder. The act was too sudden and too incautiously done to be regarded as really premeditated, and must be looked upon as an intense insane idea, immediately acted on. In his frequent lucid intervals, J. C. might have guarded against his impulses to commit murder by flight or by a judicial separation. and he must therefore be, in a slight degree, held responsible for his act.

Alleged Irresponsibility of Alcoholic Criminals.

The discussion was opened by M. Dalby with a long and interesting address. Beginning by quoting the belief of Joseph de Maistre

that human justice is the voice of God Himself, and His representative on earth, and that punishments are various forms of expiation, and represent Divine vengeance, he points out that this belief is still, to a great extent, held and acted on, even by magistrates. Criminal law should, however, be regarded as a safeguard of society, and not as an instrument of Divine vengeance, for our ideas of the just and unjust are variable, and so consequently are our judgments of human acts.

The 64th article of the penal code says "there is neither crime nor offence when the prisoner was in a state of insanity at the time of the action, or when he was constrained by a force which he was unable to resist." No discussion is possible on the second part of the legal excuse for crime. The force implied is a material force. If it was otherwise, if the law-giver had wished to speak of a psychological force, of a subjective moral constraint, he would have entered on a metaphysical domain where no judgment is possible. It might be said that on every occasion the act is accomplished by aid of an irresistible force, for the act being accomplished, no one can know if the agent was able or not to resist his impulse. Further, it is probable that under the name of insanity, the law intended to include not only the condition characterized by complete incoherence of ideas, but every kind of totally unconscious mental state.

Insanity excuses crime, and places it in the category of accidents, and in its presence moral and legal responsibility cease to exist. Nothing is clearer, nothing more just, for in the state of insanity, of absolute unconsciousness, and in the total absence of judgment, intent, design, or aim, there is no probability that the accidental circumstances in which the crime was committed will recur, and consequently, society is, under the protection of a simple superintendence of the insane person, sufficiently guarded. For it is necessary to recollect that justice does not punish, and that its object is not to punish, but to protect society and to improve the guilty.

If then the text of the law and the temper of modern society are to be respected, the number of irresponsible criminals will be very limited, and the protection of society urgently demanding the sequestration of criminals, the more or less fictitious degrees of their responsibility will be disregarded, provided that they possess consciousness and judgment. But it is not thus. Departing in the most extravagant fashion from the text and spirit of the law, returning to demoniacal fictions, or plunging in the mysteries of nebulous metaphysics, certain philosophers, certain medical men, believe it right to interpose all the errors of absolute justice in human judgments.

Thus, little by little, during the past half-century, partial insanities, monomanias, epilepsy, alcoholism, hysteria, and many other states perfectly compatible with habitual reason, have enlarged the field of irresponsibility. Frightened themselves by the easily foreseen consequences of this extension, its originators have established the

doctrine of partial responsibility, discussed in the Medico-Psychological Society in 1863. Since then that doctrine has been largely accepted, not only by specialists, but by the public. It thus frequently happens that to avoid the infliction of capital punishment, juries recognise extenuating circumstances, and to such an extent has this been carried, that on an annual mean of 200 cases of murder, the number of capital sentences have gradually diminished from 31 in 1872 to 21 in 1876, while in 1878 only 8 of these sentences were carried out.

This leads to an increase of crime. When a man rebels against the social peace, it matters not why; he overturns established order, and must be prevented from doing so; prison or asylum, it matters not; what is essential is that he be restrained, for life if necessary, or it may be by the deprivation of life. If a man be insane, his insanity should be evident to the judge, and he should not be brought to trial. Once before the bar of justice, all should be held equally responsible.

As the result of an inquiry into the condition as regards alcoholism, of 32,837 criminals in Germany it was ascertained that the crimes were committed while in a state of alcoholism by 43·9 per cent. of the males, and 18·1 per cent. of the females. Thus, if alcoholism is to excuse crime, nearly half of the criminals will escape.

Conclusions.—1. Criminal law is a law of social defence. It is not founded on metaphysics, but on necessity and utility, not on vengeance and expiation.

2. Responsibility ought to be measured only by the danger which society and individuals incur from the crime.

3. Juries are qualified to know only material facts. It is the essence of their institution. The magistrates alone, surrounded by all the lights of social and mental science, should be able to bestow the advantages of extenuating circumstances.

4. The law does not recognise irresponsibility. Article 64 of the penal code declares that there is neither crime nor offence when the prisoner is in a state of insanity. The insane person is there classed with individuals absolutely deprived of all consciousness, absolutely incoherent and incapable of giving any account of their actions, and not in the numerous categories of irresponsibles recently created. If there is neither crime nor offence in cases of insanity, there should not be any trial, and the individuals ought to be placed at the disposition of the Administration.

5. Irresponsibility accorded to alcoholics is a premium to alcoholism. Alcohol is the cause of more than half the crimes committed. It follows, from a utilitarian point of view, that the repression of crimes due to alcoholism ought to be vigorous and exemplary.

6. The right to pardon ought not to exist in a democratic and republican organization. Appanage of personal sovereignty, it has disappeared with that power. In social law the *veto* of a citizen should

not be allowed to check the decision of the jury and magistrates, that is of the law.

M. Legrand du Saulle, in replying to M. Dalby, protests against the latter's condemnation of the doctrine of partial responsibility. The intervention of medical men in criminal trials is disinterested, and aims at discovering as far as possible the actual mental state of the criminal at the time when he accomplished his crime.

Under the name of alcoholic insanity, three forms are included, the acute, the sub-acute, and the chronic. The acute form is well known, with all its symptoms, under the name of delirium tremens. The sub-acute form is characterized by melancholia, with terrifying hallucinations and delusions of persecution. Refusal of food, alterations in sensibility, cramps, tremblings, and convulsions occur, and the condition is of short duration. The chronic form is marked by trembling of the hands, lips, and tongue, and by cramps of the legs. The patient becomes weaker, his knees bend under him, and he is awkward in handling small objects, his tactile sensibility being diminished. His sight is impaired, and he has hallucinations often terrifying. He sleeps little, and becomes giddy even to falling. His general health becomes more and more impaired, his digestive system thoroughly disordered, and he soon begins to suffer from various forms of delusions, and thus becomes insane. Being insane, he cannot be regarded as completely responsible, he may be partially responsible or wholly irresponsible.

It is of the greatest importance to distinguish between intoxication, drunkenness, and alcoholic insanity.

In medico-legal cases of importance, three experts should be called to afford the necessary information to the jury, as in case of divergence of opinion, there would of necessity be a majority in favour of one view.

Individuals who take daily a small overdose of alcohol, insufficient to produce intoxication, are more liable to serious pathological changes than those who from time to time indulge in great excesses, and when such a person becomes insane and commits some crime, numerous witnesses may be forthcoming to bear evidence to his sobriety.

The actual increase of the number of crimes is not to be ascribed to insufficient repression, and to increased facility of escape from punishment, but much harm is done by the notoriety obtained by criminals in the journals of the day.

M. Fournet contributed to the discussion a paper on "The Sources, Progress, and Decay of the Moral Life in Man and Society." Without dealing specially with the question of intemperance in its relations to crime, M. Fournet criticises the views of M. Dalby, and defends the doctrine of partial responsibility. The chief aims of his communication, however, are to show that criminal law ought not to be regarded merely as a law of social defence, that it ought to be based on morality, and that just in proportion as the principles of morality

are recognised in its administration, so will it benefit society and diminish crime.

The discussion was concluded by M. Delasiauve in a lengthy speech, expressing opinions entirely opposed to those of M. Dalby.

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3. *Russian Retrospect.*

Studies in the Medico-Psychological Clinique of Professor Mierzejewski at St. Petersburg. By W. W. Ireland, Preston Lodge, Preston Pans, near Edinburgh.

The contributions of Dr. Mierzejewski, Professor in the Medico-Chirurgical Academy of St. Petersburg, to our knowledge of the structure and pathology of the nervous system have earned for him a high reputation. His observations on the histology of the brains of idiots are of much scientific value, and as the field is wide and in a great degree unexplored, it is to be hoped that he will steadily prosecute his researches. The distinguished Professor has gathered round him a group of medical men devoted to the study of neurology who not only record the results of their observations on the cases presented by the asylums and hospitals of St. Petersburg, but also prosecute original researches in his laboratory with a view to filling up any "leak" which presents itself in our acquired knowledge of the physiology and pathology of the nervous system. Instead of taking up further time with praise, however well deserved, it will be better for our readers if we recapitulate some of the results arrived at by this ardent and industrious band of observers. With the exception of Dr. Mierzejewski's own memoir, all these contributions, or at least all these in our hands, have been published in the "St. Petersburger Medicinische Wochenschrift."

Porencephaly.

Dr. Mierzejewski's paper (Contribution à l'Etude des Localisations Cérébrales. Observation de Porencéphalie fausse double (par le Professeur Mierzejewski, Paris, 1881) originally appeared in the Archives de Neurologie, Nos. 3 et 4, 1881. The word Porencephaly was first used by Heschl to designate that rare deformity of the brain in which there is a free communication between the lateral ventricle and the surface of the hemisphere. Heschl arrived at the following conclusions :—

1. Porencephaly is a congenital anomaly of the brain which is always accompanied by an insufficient development of the cerebral hemisphere on several points.

2. It cannot be regarded as an arrest of formation. On the contrary, it appears to depend on a special pathological process supervening on the course of the development of the brain.

3. Porencephaly sometimes coincides with hydrocephaly ; but this hydrocephaly does not explain it any more than other congenital anomalies of the brain.

In one instance it was found in a girl of seventeen, whose intelligence was tolerably good, but who had paresis of the right side of the body. In fact, if one hemisphere be uninjured, the intellect may appear to be complete. Dr. Campbell Clark's case occurring in the asylum at Melrose, and published in the Journal, October, 1879, is cited as one of porencephaly. From his study of all the cases Dr. Mierzejewski concludes that wherever there is an arrest of development of the central convolutions there is a paralysis or paresis of the opposite side of the body. The case described by the Professor himself was an idiot of a very low type, with stiffened joints, who was carried about in a wheelbarrow, and exhibited to the sounds of a barrel organ to gain money from the pity or amusement of the crowd.

Little was known of the mental manifestations of this creature, save that he was an idiotic mute. Dr. Mierzejewski thinks that the incapacity of moving his limbs is accounted for by the deficiency of the central convolutions. The description of the body is minutely given. The liver was irregular in form. The arteries do not appear to have been dissected in the trunk and extremities ; but it is expressly noted that there was no particular alteration in the vessels of the brain.

The brain itself was examined with very great care, and the description is illustrated by five pages of beautiful lithographs.

In those slices which were pared off for microscopic examination nothing abnormal was discerned, save that distribution of the grey matter was very irregular. On the side of each hemisphere there was a deep funnel-shaped depression apparently formed by an involution of the fontal and median gyri into the interior of the lateral ventricle. The ventricle did not communicate with the subarachnoid space, there being a thin layer of tissue still holding at the bottom of the depression. It was thus not a complete case of porencephaly. The body of the corpus callosum was smaller, the knee thicker than usual.

Dr. Mierzejewski has an ingenious theory on the cause of this malformation. He thinks it owing to a displacement caused by the pressure of a bounded collection of fluid about the third month of fœtal life.

The Professor, now that he is a Member of the Association, will, perhaps, honour this Journal with a contribution.

The Temperature of the Insane.

Dr. W. Bechterew has a series of papers ("St. Petersburger Medicinische Wochenschrift," Nos. 32, 33, 38, and 39, 1879, and 25, 33, and 34, 1881) on the variations in the temperature in the insane and the regulation of the bodily heat and the nervous centres in which he raises a number of interesting questions,

and tries to settle some of them by well-devised experiments and observations which it is to be hoped he will still continue to prosecute.

As instances of abnormally low temperature, he quotes from Lowenhardt four cases of acute mania ; in the first of these the bodily heat varied from 25° to 35° C. for several weeks before death ; in the second it was from 29·5° to 30·8° on the evening before death ; in the third it was 23·75° to 31·5° three days before death. From Ulrich he quotes a case of general paralysis in which the temperature was 33·1° to 35·8° during the last twelve days ; in melancholia a temperature of from 28·6 to 30°. He quotes from Tiling a case of stupor with temperature of 25·3° to 27·5,° one of megalomania two days before death 32°, a case of general paralysis with a temperature of 28·5° two days before death, and another of the same disease where during the last ten days there was a gradual sinking of from 37° to 27·7°.

Dr. Bechterew gives us from his own experience three instances of abnormally low temperature in the insane, detailing their clinical history at considerable length without bringing out anything capable of explaining the diminished power of retaining or generating heat. The first he calls a case of dementia senilis in a woman of fifty-three, who was irritable and suspicious, had hallucinations, slept badly, and refused food. The pulse was scarcely perceptible, and during the last fortnight of her life the temperature was as low as 34·4° in recto and 31° in axilla. Before death it fell as low as 26° in recto. There was very extensive disease implicating the lungs, liver, kidneys, and pancreas. There was found degeneration of the arteries of the brain, and atrophy of the ganglion cells of the central gyri and anterior horn of the spinal cord. In the second case of general paralysis, the temperature varied from 34° to 32° during the last six days. In the third patient, who was also affected with general paralysis, the temperature varied from 32° to 31° during the last four days.

The *post-mortem* examinations recorded in a few instances seemed to favour Pflügers' view, that sinking of the temperature is owing to alterations in the neighbourhood of the pons, but in the majority of the cases no such alterations would be found ; but he is disposed to believe that we ought to look for the lesion in that portion of the hemisphere lying closer to the median cerebral convolutions, which, according to Eulenburg and Landois, have an influence on the vaso-motor nerves, and which probably have a regulating influence on the thermogenic mechanism of the body. Dr. Bechterew cannot find that a low temperature is peculiar to any particular form of insanity. It has been observed in all forms, sometimes coexisting with great mental excitement, and unaccompanied by symptoms of collapse.

He found that in healthy people the temperature is lower in the morning than in the evening. In insanity the variations of temperature are much greater, and there is also a considerable difference between different parts of the body on the same side as well as between the temperature of the two sides in the insane. In some cases he has also observed a

difference of temperature between the two hands. Sometimes this temperature is crossed; for example: the temperature in the left foot is lower than the right while the temperature of the right hand is lower than than the left. In three of the insane patients he found different temperatures in each ear, sometimes as much as a degree centigrade. He found the *typus inversus* in two cases of idiocy, that is the temperature was lower at night than in the morning. In one case the temperature sank from 37° in the morning to 35·5° in the evening ; in the other case the temperature fell as low as 34·5° in the evening, but he does not say what it was in the morning.

I have a record of a few observations which I made in the temperature of idiots. Out of 12 cases the temperature was in the majority highest in the evening, then at 3 p.m., and lowest in the morning. In 13 cases the bodily heat was found in a majority to be highest at 3 and then at 10, being lowest in the evening. The results, therefore, are sometimes contradictory, but I am disposed to think that the temperature in the morning and evening are much alike, and that there is a rise in the middle of the day in most cases, though in some there is a fall.

The results are variable even in the same cases. Thus in a little girl, a scrofulous, genetous idiot, observed over a fortnight three times a day, the temperature rose eleven times from the morning, and fell twice. There were eight rises and but one fall from 9 a.m. to 10 p.m.; in one observation the temperature remained the same, and there were five rises and four falls from 5 p.m. to 10 p.m. The pulse and respirations, which were very irregular, in the majority of cases rose with the temperature. Dr. E. Seguin states that the mean temperature of the idiot is found in the morning, the maximum at midday, and the minimum in the evening.

In another girl, who was less delicate, the temperature, pulse, and respiration were observed for three weeks thrice a day. The temperature showed a very decided rise from morning, 10 a.m., to evening, 10 p.m. ; the temperature was also higher at 2 p.m. than at 10 a m., and higher in nine cases in the evening, but in seven lower. The pulse generally rose with temperature. The variations in respiration were very remarkable.

In pursuance of his researches, Dr. Bechterew determined to test the amount of resistance to cold possessed by the insane. As this, in some cases appeared to be feeble, he was afraid to expose them to a lower temperature than from 30° to 35°. Some of his patients were introduced into tubs of water after ascertaining at what rate the water was cooling ; it was then noted how much the cooling was retarded during the time the patient remained in the water, the bodily temperature being taken both before and after the bath. From these data Dr. Bechterew calculated the units of heat transmitted from the patient's body into the water. He found that the production of bodily heat gradually increased in proportion to the loss by cold, but this took

place only to a certain degree. In a loss of ninety units of heat and more, *i.e.*, where the loss is double that of the heat generated, the production of heat increases, but not in proportion to the loss from the surface. In other words, the generation of heat is always proportional to the radiation from the surface of the body as long as this radiation is not more than 90 units in thirty minutes, or three units a minute. If more than this be lost, the production of caloric is not sufficient to prevent the bodily temperature from sinking. In eighteen experiments with idiots and dements, Dr. Bechterew found that this relation between the loss of heat and its production in the body did not hold good. Persons so affected have not the same resisting power against the influence of a low temperature, they lose heat rapidly, and the calorification within the body is not so vigorous as with healthy people.

There is thus a derangement both in the regulation of the radiation of heat from the surface of the body and the renewed generation of heat within the body. Dr. Bechterew calls to mind that with animals in which the spinal cord has been cut, the bodily temperature can be raised and depressed more easily by external agencies. In a case of melancholia attonita and one of mania periodica, Dr. Bechterew also found the same low power of resistance to cooling baths.

As an abnormally low temperature seems to be a symptom of great gravity, those who hold to the theory of a centre which has the power of regulating the bodily heat might set themselves to the useful task of discovering some drug which would so stimulate this centre as to assist in raising the bodily temperature when alarmingly low.

Dr. Bechterew does not indicate by what means he tried to keep up the temperatures of his patients. I once attended a girl, a paralytic imbecile, in whom the temperature remained from the 20th December at 95° F. in the axilla for seven days. The eyes were much injected for two or three days, but I could not detect any other diseased action. I kept the room warm, covered the girl with warm bed-clothes, with hot water applied to the feet, and occasionally hot applications to the body. I gave her coffee now and then in the hopes of helping to raise the temperature.

On the 27th it had risen to 96°, one degree higher, when, in spite of my remonstrances, the girl was removed by her mother the next day. The woman made her walk about three-quarters of a mile when the weather was extremely cold to undertake a railway journey of about twenty miles. She brought her daughter back in about five weeks, saying she was much better, and evidently not believing her to be seriously ill. She said the girl had always been cold from infancy. She died, however, in about three weeks, the temperature falling on one occasion as low as 82° in the axilla two days before death. A post-mortem was refused.

On the Movements of the Brain.

In the thirty-seventh number, 1880, there are some investigations on the movements of the brain, by L. Ragosin and M. Mendelssohn.

They describe the case of a patient, in a hospital at St. Petersburg, a young man of eighteen, very anæmic. Through necrosis of the skull, a part of the dura mater was uncovered for about the space of 1 centimetre long and 7-8 millimetres broad. They studied the movements in the denuded brain much in the same way as Giacomini and Mosso, using a modification of Marey's cardiograph, and Simpson's pneumograph to note the frequency of the respiration, and Marey's sphygmograph to time the pulsation, and the results obtained agree with the observations of the Italian physiologists. The synchronism of the movements of the brain with the pulse was very evident. The pulsation of the brain was found to be diminished by compression of the carotids, and increased by compression of the fernoral arteries.

The impulse of the respiration was in this case not perceptible, save on a deep inspiration. As long as the patient freely breathed in the usual manner, there was no additional movement of the brain. Giacomini and Mosso found that one out of every three or four of the cerebral pulsations rose higher than the other, though, under ordinary respirations, this was not very marked, the curve rising with the expiration and descending with the inspiration. There was a third movement observed, which was neither that of the heart nor of the respiration, but is thought to be owing to a rythmical movement of the arteries, which they believed to be the same as that noticed by Schiff in the ear of the rabbit, and first observed by Giacomini and Mosso in the human brain.

On Lesions of the Motor Zone of the Brain.

In Dr. Bechterew's two papers on this subject (Nos. 50 and 51, 1879) eight cases are detailed, some of them illustrated by woodcuts. The lesions generally confirm recent views on the motor functions of the areas about the median convolutions.

The author gives a carefully studied description of the symptoms of cortical epilepsy. If the disease arises from a blow, there is generally a latent period during which the patient enjoys pretty good health. There is pain in the place of injury, and vertigo and violent convulsions, pretty often accompanied by maniacal excitement. The deviation of the eyes is not constant in cortical epilepsy. Consciousness is lost only at the height of the attack, and the iris sometimes remains still capable of being acted upon by light. The convulsions begin in the same group of muscles, and gradually extend to others. When the fits are succeeded by paralysis, it generally passes away in two weeks, sometimes in a few days. If the convulsions continue after the paralysis, they also affect the paralyzed limb. Dr. Bechterew considers this characteristic of cortical epilepsy.

Dr. Bechterew has found the course of cortical epilepsy to be pretty constant, the symptoms succeeding one another in a stereotyped fashion.

Combined Deviation of the Head and Eyes.

Dr. Bechterew has three papers (Nos. 11, 12, and 13, 1881) on combined deviation of the head and eyes. He observes that this disorder has sometimes a spasmodic, and sometimes a paralytic character, and he thus states the differential diagnosis. The deviation, which is dependent upon convulsions, though sometimes persistent, is of varying rigidity, sometimes stronger, sometimes weaker, and sometimes entirely ceasing during the more violent convolutive fits; the head and the eyes are strongly drawn to one side, while the sterno-mastoid and trapezius of the opposite side are contracted, the corresponding muscles on the same side being relaxed. Sometimes there are startings of the other muscles of the neck, such as the platysma myoides and scalenus anticus.

In deviation, connected with convulsions, the head cannot be turned at all to the middle line, or only for a short time. If force be used, the whole body turns along with it. It is, however, not quietly fixed, as there are tremulous motions or startings. The paralytic form, on the contrary, the distortions are more persistent, but are readily undone, and there are no convulsive startings.

On the Alterations of the Spinal Cord after Amputation.

This question has occupied attention since the time of Berard and Larrey; but the results ascertained by pathologists are somewhat discordant. Atrophy of anterior columns has been found in some cases long after amputation of the leg. On the other hand, Vulpian, Dickenson, and Troisier found atrophy of the posterior column on the amputated side. Leyden, Pick, Dejerine, and Mayor found atrophy of the whole half of the spinal cord, both white and grey substance, on the corresponding side of the amputation. Genzmer could find no atrophy of the white substance on the amputated side in a man who had died thirty years after amputation of the right thigh, the only change being atrophy of the right anterior cornu in the under third of the lumbar enlargement.

Dr. A. Erlitzky performed amputation on four dogs. From one animal he removed the right fore leg; from another the left fore leg; in a third the right hind leg; and in the fourth the left hind leg. In two old dogs he removed a hind leg: from one the left, from another the right. The amputations were made from the ends of the humerus and femur. The wounds healed in from three to four weeks. Two of them went amissing, a young dog who had lost the left hind leg and an old dog who had lost the right hind leg; the rest were killed after being kept two years. The spinal cord was carefully examined, and subjected to a microscopic examination, when the following results were obtained:—

1. There was almost no change in the spinal cords of the dog which had grown up, while the alterations in the dogs whose limb

had been amputated, when three weeks old, were very visible in the portions of the cord from which the nerves of the amputated extremity were distributed.

2. In the young dogs there was a diminution in size of the posterior roots as well as of the posterior tract and cornu, with diminution of the number and size of some nerve cells of the anterior cornu, in the same side. The diminution of the volume of the cord was caused by simple atrophy of the tissues, no other pathological change being noticed. Dr. Erlitsky explains the absence of alteration in the anterior columns of the cord by the supposition that the motor or centrifugal tracts still received the impulse from the nervous centres, whereas the centripetal nerves lost a great portion of the area whence they derived their impressions.

Phosphorus causes Myelitis.

Dr. S. Danillo gives us an account (No. 17, 1880) of a series of careful experiments, conducted in the laboratory of Professor Mierzejewski, during the winter of 1879, with the view of ascertaining the effect of phosphorus on the spinal cord. It was administered to animals in poisonous doses, all the symptoms carefully observed, and the lesions after death studied with rigorous accuracy. Dr. Danillo presents the following conclusions :—

1. Large doses of phosphorus in a short time cause acute parenchymatous myelitis, with deposit of pigment matter and extravasation of blood. The deposit of pigment has not been previously noticed by any observer.

2. Smaller doses given over a longer time bring a myelitis centralis in all its stages.

3. By giving the phosphorus in varying doses, we can increase or diminish the intensity of the inflammation of the spinal cord.

The symptoms following poisonous doses of phophorus are of two kinds, signs of gastro-intestinal inflammation and of nervous disorder, such as anæsthesia, hyperæsthesia, paresis, and tonic or clonic spasms. It is probable that a part of these nervous symptoms is dependent upon the inflammation of the cord.

Arsenic and Lead also cause Myelitis.

Dr. N. Popow (No. 36, 1881) tried similar experiments with arsenic. He found that it causes acute inflammation of the spinal cord a few hours after its administration. This is at first confined to the central grey matter; but in more chronic cases the inflammation becomes diffused over the whole breadth of the cord. The paralysis in arsenical poisoning is, therefore, of central origin. The peripheral nerves are quite unaffected. The tissues were carefully examined through the microscope. Dr. Popow also ascertained, by three experiments on guinea pigs, that lead, like arsenic and phosphorus, causes myelitis. It affects the spinal cord before the brain. He was

unable to find any alteration in the peripheral nerves. The animal that survived the longest died ten days after the administration of the poison. Oxide of lead was the preparation used.

[Want of room obliges us to defer to the next number a notice we had prepared of a new Foreign Journal, "Neurologisches Centralblatt," edited by Dr. Mendel, of Berlin, which appeared in January. We wish it every success. The same observation applies to "Die Medicamentöse Behandlung der Psychosen," by Dr. Brosius, and various publications of Dr. Von Krafft-Ebing.—Eds.]

4.—*Psychological Retrospect.*

By B. F. C. Costelloe, B.Sc. and M.A. Glasgow.

Mind, Nos. XX.-XXV. (*Oct.*, 1880—*Jan.*, 1882).

In a review of the many issues that have appeared since our last retrospect, it will not be possible to do much more than indicate the main topics of interest to our readers in the various numbers of "Mind." No. XX. (October, 1880) was in reality a more than usually interesting one. Besides the conclusion of a curious but valuable series of papers on the cell-theory and the "Unity of the Organic Individual," to which we have referred before, it contained also an elaborate essay on "Æsthetic Evolution in Man," from the prolific pen of Mr. Grant Allen. It is sufficient to say of this that the theory propounded is one of "*apanthropinisation*;" or, in more intelligible language, the widening out of associations of beauty concentrically from the assumed starting-point in the sexual selection of the most ornamented mate. There is an unimportant essay by W. Davidson on "Botanical Classification"—a subject which has yet to be philosophically treated—and a very important one on Kant, by Professor John Watson, of Canada. Among the Notes are some remarks by Mr. Bain on Mr. Galton's very interesting scheme of mental statistics (previously noticed here), a discussion of "Brute Reason," and a noteworthy summary of the views lately stated with great clearness by Professor James, of Harvard, as to Muscular Sense and the feeling of effort, hitherto a subject for much loose theorising.

The January number of last year was likewise interesting, in spite of sundry heavy and not altogether valuable papers, by Mr. Shadworth Hodgson, Dr. G. Thompson, and Herbert Spencer. Mr. Sully opened with a too slight and sketchy discussion of a fruitful subject—"Illusions and Introspection"—meaning thereby the false semblances of immediate knowledge as to facts of the inner consciousness. He says, for example, that all men are capable of deceiving themselves

by fashion or otherwise into the idea that they are enjoying themselves when in reality they are rather bored. This special instance we distinctly doubt, or rather deny; for what is enjoyment but the sense that we are enjoying ourselves? But there is no doubt that in many cases the wish to feel something, or the preconceived belief that given certain conditions, we would feel something, does lead us to say and to imagine that we feel it when, in a sense, that is an illusion. The wish to feel religious fervour, no doubt, often creates a feeling which has a certain unreality. But it is dangerous to call this "illusion," without closely distinguishing our use of the word from the ordinary case of illusory sense-perception. Mr. Sully's paper is followed by one still more curious, on "Our Control of Space and Time," by J. Venn, which has a virtue rare in these pages, for it is amusing. The writer considers how unfortunate our condition is that we are able in only a comparatively limited range of cases so to overcome the difficulties of space, and still more of time, as to be permitted to settle a disputed point by personal experiment. The surveyor who cannot cross a brook has to resort to trigonometry. The temperature at the Antipodes is personally procurable; but none can say what it is half-way there, because of the laws of space. History would have no puzzles if we could shift our position in time, as we can geographically by travel. If we could conceive our power of *locomotion* in space or time (backwards or forwards) or our power to *enlarge* space and time at will in any way increased, the problems of science would be indefinitely simplified. A touch-microscope, for example, is much wanted. For a time-microscope, the curious reader will find a suggestion in M. Venn's paper. Altogether it is an interesting topic, and though it seems at first sight most unpractical, it would be rash to say that it is really so. Wilder suggestions have often proved fruitful in the end. There are a few notes on Hypnotism, on Baby-Psychology, and on "Mind-Stuff," and there is a notable review by Prof. Croom Robertson of Dr. Bastian's "Brain as an Organ of Mind." The review, though severe, gives the author full credit for his erudition, but criticises his theory as vitiated by a fundamental haziness in the definition of "*Brain*" and "*Mind*," especially the latter. In one place Dr. Bastian speaks of "*almost* the whole of the nervous system" as the organ of "Mind." In fact, he refuses to limit "Mind" to the region of "conscious experience," while reasonably objecting at the same time to such contradictory and too common terms as "unconscious sensation," or "unconscious memory." He therefore admits into "Mind," along with conscious states, "other mere unconscious nerve-actions which are contributory to, rather than directly associated with conscious states," while rigidly excluding always the "outgoing currents" transmitted downwards from the cortical substance. Obviously the author's attempt to define "Mind" breaks down under the complexity of the data, and this difficulty infects the reasoning of the whole book. It is less excusable, how-

ever, that in his final chapter he should speak as if he had a standing-ground to protest against theories of automatism, in which "Free-will, Duty, and Moral Obligation would seem to be consigned to a common grave, together with the underlying powers of Self-education and Control." As his reviewer shows, every page of the book leads up to the conclusion he denounces.

The April number is much less important. The most notable papers are the reviews of Mr. Gurney's "Power of Sound," by Mr. Sully, and of Geiger's "Development of the Human Race," by Mr. Grant Allen. Mr. Sully is not at all satisfied that his author should have come, after a most exhaustive and able discussion of the whole field of music, to the conclusion that, "the origin of musical pleasure is inscrutable," and that the "enjoyment of music is referable to a unique faculty." Mr. Seth, of Edinburgh, also contributes to the Reviews an excellent and interesting note on the first part of the new translation of Zeller's History of Greek Philosophy.

The July issue was also below the average of interest. A discussion of "George Eliot's Art" is interesting, and should be quite within the range of a psychological magazine; but it may be doubted whether Mr. Sully was the best person to write it. Dr. Montgomery contributes another of his difficult but noteworthy papers, this time in the form of a plea for "the actual existence of an identical, indivisible, perdurable, and self-sustaining substance of which the transient phenomena of consciousness are but inherent affections." This he calls "The Substantiality of Life," but it is practically an argument for the existence of some kind of spiritual Self or Soul as distinguished from Body, and underlying our mental and organic activities as a basis and principle of unity. Professor Josiah Royce sends from California an essay on Clifford's "Mind-Stuff," and there is a valuable review of Mr. Sully's recent and rather sketchy volume on "Illusions," by Dr. Burns-Gibson. An important note is printed on a tentative hypothesis lately put forward by Prof. James, of Harvard, concerning the functions of the semicircular canals—namely, that they are the organs of a special sense of "translation through space," which, when intensified, becomes vertigo. In support of this he alleges first that a large proportion of congenital deaf-mutes are incapable of dizziness, and secondly, that where disease has affected the internal ear, disorders of locomotion very frequently follow. The subject is well worthy of the attention of all scientific observers.

The number for October is chiefly remarkable for a long and ambitious article by Mr. Grant Allen, on "Sight and Smell among the Vertebrates." It is another of those reckless hypothetical generalisations which bid fair to be the ruin of modern psychological and biological science, but it has at least the merit of being ingenious. The theory is that in an evolutionary scale of intelligence, Sight and Smell are in inverse proportion. At the bottom of the scale, say the amphioxus or the lamprey, the olfactory brain-organ has compara-

tively a great development. Indeed, the author does not hesitate to suggest that the cerebral hemispheres may have been at some remote period merely appendages to an organ of smell, and in this sense he refers specially to the morphology of the Cyclostome Fishes. After careering through the different levels of animal life, and tracing what he takes to be a gradual increase in the importance of Vision—though the gradual or continuous character of the change seems to be conclusively refuted by his own facts—he leads us naturally to the trite observation that savages rely more on smell than the philosophic children of civilisation. Mr. Whittaker contributes a curious paper tending to establish an analogy between the "Mind Stuff" theory and the peculiar cosmology of Schopenhauer, and Mr. Seth has a comprehensive but very well-written account of the general Hegelian position. Among the Notes is a curious one by Mr. D. Macgregor, on certain reflex effects of extempore speaking—a practical subject which would repay wider study.

The current number of "Mind" opens with the first of an important series of papers by Prof. T. H. Green, entitled, "Can there be a Natural Science of Man?" in which he seeks to give an intelligible and at the same time conclusive answer to the prevalent English psychology from the stand-point of the Hegelian idealism. This excellent paper is followed by a second contribution from the Californian Professor Royce, on "Mind and Reality," being an attempt to state what he takes to be the true views underlying the "Mind-Stuff" theory, which theory is also commented on by Mr. F. W. Frankland, writing from New Zealand. The Notes are peculiarly rich in interest. First comes an excellent and forcible reply by Mr. Gurney, the author of "The Power of Music," to Mr. Sully's already noticed strictures upon his psychological theory. The answer, we confess, appears to us altogether convincing, and the views laid down are full of instructive suggestion upon a topic which is too little considered by the students of mental science. Dr. Montgomery follows with a note headed, "Are we Cell-aggregates?" in which he vigorously attacks Prof. Huxley's cellular profession of faith at the International Medical Congress, and expounds the opposite position with a terseness and close reasoning that will repay more than a passing attention. Prof. W. H. S. Monck adds some interesting "Observations on Cases of Couching for Cataract." Among the reviews are those of Harper's "Metaphysics of the School," by Dr. Burns-Gibson, and of Lange's "History of Materialism," by Mr. Seth. The short notices of new books include "The Brain and its Functions," by J. Luys, Physician to the Salpêtrière, and the English translation of Prof. Morselli's "Suicide."

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting was held at Bethlem Hospital on Tuesday, January 31, the President, Dr. Hack Tuke, in the chair.

The following gentlemen were elected members:—

Dr. H. Gardiner Hill, Assistant Medical Officer, Coton Hill Asylum.

Robert Clapp, L.R.C.P. Lond., Assistant Medical Officer, Barnwood House, Gloucester.

Ernest F. Cooper, L.R.C.P., Assistant Medical Officer, St. Andrew's Hospital, Northampton.

W. C. Bland, M.R.C.S., Medical Superintendent, Borough Asylum, Portsmouth.

Dr. F. Shapley, County Asylum, Bridgend, Glamorgan.

A. J. Alliott, M.D., M.A. Cantab., St. John's, Sevenoaks.

M. L. Brown, M.D., Assistant Medical Officer, County Asylum, Colney Hatch.

Dr. SAVAGE, in exhibiting "Small Cysts in the Brain and other Tissues in General Paralysis," said the chief interest of the specimens was in relation to the general pathology of the body. In two cases of general paralysis of the insane not only were cysts or cavities found in brain and cord, but also in lung, liver, and kidney. In one of the cases the cavities in the brain depended upon aneurismal dilatation of the smaller vessels, but in the case of the kidney, and more especially the lung, he was in doubt as to the origin of the cysts. That there should be degenerations of a spherical form occurring in these several tissues in a degenerative disease like general paralysis was a matter of interest. In the brain and cord they were not at all uncommon, but the point of his observation was that in some cases they might occur in other viscera. There was nothing special about the history of the cases beyond that they were ordinary cases of general paralysis occurring in men between thirty and forty years of age. One case ended rather rapidly, while the other was rather chronic.

Dr. MAJOR asked if the vacuoles were distinct in the fresh state.

Dr. SAVAGE said they were not noticed so completely, but that there were vacuoles both in viscera and brain noticed immediately after death.

Dr. MICKLE said the presence of the small cavities in the brain in general paralysis was a very common occurrence. The kidney also presented small cystic dilatation, but that, perhaps, was more frequent in the chronic cases. The cases were extremely interesting as showing the presence of dilatation in the liver and lungs. The cavities in the brain had been fully described many years ago by Dr. Clarke.

The PRESIDENT said, having had the opportunity of seeing the brain containing vacuoles, he might say they were very distinct in the fresh state.

Adjourned Discussion on Dr. Weatherly's Paper on the "Treatment of the Insane in Private Houses."

Dr. STEWART said there were three points of view from which they might approach this subject: first, the point of view of the British public; secondly, the point of view of the patient himself—the advantage he derived from treatment; and the third, the point of view of the physician. He was afraid they were too often harassed by the idea that what they did would not be approved of by the public, but the physician pursuing his own course, and

acting according to the principles of rectitude, would always endeavour to act independently of all extraneous influences. The British public, as a rule, dealt in a very severe way with any medical man who made any slip with regard to a case of insanity, and it was not, therefore, in the least to be wondered at that medical men hesitated to engage in the treatment of the insane when reproaches that they were dealing with cases solely with an eye to their own profit were likely to be thrown in their teeth. The unthinking British public, who were unfortunately the largest portion, considered that every man who took an insane patient under his care as a rule had some object in keeping that patient a considerable time longer in his house, or wherever it might be, than he ought, and they could not too frequently and too plainly say, as an association, that the evidence was overpowering that that was not the case. The evidence was overwhelming that during the many years that the Commissioners in Lunacy had now been engaged in the oversight of the insane the number of cases had been extremely few in which the insane had been detained under care and treatment in private houses longer than they ought to be. It was right, then, that they, as an association, should distinctly and deliberately assert that as often as they could for the honour and credit of the profession. Dr. Weatherly, in approaching the subject, seemed to be rather afraid of this bugbear, and he thought it as well that they should not be too cautious in what they did as long as they considered that the course of their action was guided by a desire for the benefit of the patient. The desire that the physician had prominently before his mind was that the patient should recover quickly, and surely that desire was backed up by, if they like, the selfish motive of appearing well before the public, who would think better of a man who cured his patients frequently and could show a large number of recoveries. If they banished from their minds that fear of the British public reproaching them, he thought that they would get rid of some of the objections that Dr. Weatherly made or hinted at—to the detention of a large number of patients in asylums. But coming to the next point, viz., the point of view of the patient, he thought a very large number of those who had opportunities of considering and deciding between residence in large asylums and residence in very small ones would give their preference to the small ones. The opinion of the majority of those patients, however, would not be thought very much of, because there were very few who had had the opportunity of comparing the two; and he thought, with the gentleman who closed the debate on the last occasion, that there was a very large number indeed of those who were living in private asylums who lived extremely happy, enjoyable, and really useful lives in their own way, who would not lead either a useful, enjoyable, or happy life in private houses. The number of cases one saw in well-conducted private asylums divided into a great number of small wards who were really happy and contented, and leading useful lives, was very remarkable, and would not be believed by the majority of people one talked with outside. They were possibly chronic cases, and apparently would do as well if they were in private houses, but in reality they would not do as well. In many cases the divertisements of an institution were part of the little items which made up the sum of the happiness of the individual, and therefore he thought that from the point of view of the patient himself it would come to this, that if they knew all they would lose by leaving a well-conducted private asylum and going into a private house, they would prefer the asylum, taking for granted that the private asylum was not one in which a large number were massed in various wards. The third, and perhaps the most important, was the point of view from which the physician anxious to do the best for his patient viewed the majority of cases coming under his observation. Looking back upon the cases they had seen in the very earliest stage of insanity, they must recognise the fact that if they had been called in to see the patients at the time when these little irregularities of mental power were beginning to

be developed, they might conscientiously feel that they were doing their duty by placing them under such care and restraint as might be provided in houses such as Dr. Weatherly had pointed out; and there, he thought, was the great value of Dr. Weatherly's paper, because it would emphasise a point which they were all anxious to lay down whenever they had opportunity, viz., that there could not be too early a cognizance of mental derangement, and that they seldom saw cases until they had proceeded to a condition which could not be dealt with in private dwellings with the same good effect that they could be treated in well-conducted small private asylums. Dr. Weatherly had put them under an obligation for another reason, because his paper might lead some of those who were engaged in the outside work connected with insanity to endeavour to persuade the friends to separate those people from associations which would finally lead them into a helpless condition, and to place them in private asylums where all the opportunities were presented for the proper treatment of cases. Let them do all they could to impress upon the mind of the public that the physician had no object but the welfare of the patient, and was not, as a rule, desirous of keeping patients longer than, as a physician, he considered they ought to be kept. Let them, as a body, remember that they were bound to support their brethren who had private asylums in this point, and determine, come well, come ill, to uphold those who were doing a good and excellent work.

Dr. SUTHERLAND said he had read Dr. Weatherly's book, but having had some conversation that evening with Dr. Weatherly, his views had been very much altered from what they were after reading the book. Dr. Weatherly informed him that a great many people took lunatics to reside in their houses who were not in any way qualified to do so, whose houses were not prepared for suicidal, homicidal, or dangerous tendencies, but who simply made a trade of it as a lodging-house keeper would; and the object of his book was to prevent such people taking patients, and to put them into the hands of properly qualified and registered medical men. He further said that he wished to direct attention to a certain class in which there was great necessity for providing what he would call a half-way house. He (Dr. Sutherland) could mention several cases which had come under his own notice within the last few days, in which he had felt that to place such a patient in an asylum would be an *exposé* to the family, and would probably do an amount of damage which could never be repaired. Marriages were prevented; young ladies whose prospects in life were favourable in every sort of way were prohibited from marriage on the reputation of having an insane brother or sister. People who had held positions of trust could not regain those positions simply because they had the stigma upon them of having been in a private asylum. Dr. Weatherly had therefore done a very good and useful act in bringing this question before them, and what he (Dr. Sutherland) would advocate would be the adoption of a half-way house kept by a properly qualified medical man who understood something of insanity, where a patient could go and be under supervision without having the stigma of being under a certificate and in an asylum. Having said thus much in favour of Dr. Weatherly's paper, he would forgive him if he offered a word or two in criticism. He had read his book carefully, but could not quite understand his ideas of nomenclature. He told them that cases of melancholia with stupor were fit for treatment in a private house, whereas cases of dementia were only fit for treatment in an asylum. Now, he (Dr. Sutherland) found it sometimes extremely difficult to diagnose between a case of melancholia with stupor and acute dementia. The subdivisions of insanity were not hard and fast lines. The cases were mostly mixed; that was to say, there were symptoms of mania and melancholia and dementia very often in the same patient. They could not, therefore, strictly speaking, call cases by certain names. He thought Dr. Weatherly, with all deference to his little book, had mixed up the term melancholia with simple depression. Depression

often arose from grief, from pecuniary loss, and other causes, and in such cases, as long as insanity had not got hold of the patient, he might safely travel abroad or be placed in houses where there were not such appliances as would prevent his committing suicide or homicide; but when once insanity had got hold of a man, he could no more back out of it than he could if seized with scarlet fever or small-pox: it must run its course. It was like a ship in a storm, and the only course was to steer the man safely through it. Cases with simple premonitory symptoms were entirely different, and there a half-way house might be most beneficially employed. Dr. Weatherly said that when patients left an asylum it often happened that they felt a sort of stigma upon them, and looked back with feelings of ill-will towards those who had really and truly contributed to their cure. This was contrary to his (Dr. Sutherland's) experience, for he had frequently had patients coming back thanking him, with tears in their eyes, for the little he had been able to do for them. They said that if it had not been for him, they would have become incurably insane, and probably have committed suicide; and altogether they had to thank him and those whom he was sure he never could thank too much, the attendants, for the way in which they had been treated. A lady who had been four times insane at her confinements, having had four attacks of puerperal insanity, feeling the symptoms of melancholia again approaching, came to his house and begged him to place her in his asylum. A certificate was obtained, and she was admitted, remaining there as a boarder, and the result was, owing to the proper administration of sedatives, to regular hours, the absence of the excitements and fatigues of society, and to a regular mode of diet, that lady was saved from a fifth attack of puerperal insanity. Three months ago she came to consult him again, stating that she was going to have a sixth child. The child was born, and he was glad to say the lady passed through her confinement without any recurrent attack. He believed that on the fifth occasion of her having a child the very fact of her coming to an asylum and being properly treated turned the tide, as it were, of the mental symptoms into the right channel. Dr. Weatherly had complained of the expenses in private asylums. A very short time ago a baronet was admitted to his asylum, and was subsequently removed, his friends thinking the charge was exorbitant, the real fact being that there was not a single penny of profit made out of the case. At the end of a week they came back and begged him to readmit the case, as the expenses in the week he had been under their own care were four times as much as they had paid in the asylum. There were many other points in the paper which he would like to criticise, but he must not further detain them, and would therefore simply conclude by expressing his thanks to Dr. Weatherly for having brought this subject before them.

Dr. JEPSON wished to support what Dr. Sutherland had said about half-way houses. A few years ago it was his privilege and pleasure to spend some time with Dr. Stewart, and he could not tell them the pleasure he felt at seeing how much was being done for the patients. They were not sufficiently insane to be under constraint, but they were there resting from the cares and worries of domestic anxiety, and he came away impressed with the idea that that was the most sensible mode of treatment he had seen for a long time. Of course it did not apply to all cases, but there were many continually occurring cases that were on the border between the two conditions of sanity and insanity in which that treatment might be adopted with advantage. He did not believe in private houses or in lodgings, but if it was necessary to place patients in an asylum, a home such as Dr. Stewart provided for them appeared to him to be one of the most desirable things he had seen. He was very glad to be able to support what Dr. Sutherland said on that point.

The PRESIDENT said that in many respects his sympathies went with the observations of Dr. Wood at their last meeting. Perhaps he should hardly go so far as to say with him that taking a hundred inmates of private asylums

and a like number of community outside, those in the asylum were happier, on the whole, than those in general society. If true, it was rather a melancholy conclusion to arrive at as regards the world at large. On the whole question under discussion it really came to this, that every case must be dealt with on its own merits. Each kind of receptacle, whether asylum, lodging, or a doctor's private home, had its particular advantages. He was constantly asked to advise as to where a patient should be placed, and in a very large number of cases he should prefer to recommend a good private asylum or registered hospital; but then one felt the force of that awful word "stigma," which had been so frequently referred to that evening, though it was a question whether they, as medical men, ought after all to yield to its consideration. A difficulty often arose in this way. If they recommended a private asylum, honestly believing it to be the best place for the patient, the friends took the advice into consideration, but with the existing prejudice against asylums, pursued another course, probably placing the patient in lodgings without certificates, and valuable time in this way was often lost. The friends were only too glad to catch at any other alternative, and it might turn out a worse one than what one would have advised if aware that they would not have placed the patient in an asylum. Dr. Sutherland had spoken of the stigma in connection with marriage, but, on the other hand, it might be said that it was well that there should in such cases be a certain amount of check upon marriages. With regard to the proportion of cures of patients in lodgings as contrasted with private asylums, he thought that justice had hardly been done to the proprietors of private asylums. In a particular instance mentioned, which, no doubt, was perfectly true, 74 out of 100 cases had been cured in lodgings, but he did not think that these figures ought to be compared with the proportion of recoveries on the number under treatment in a single year in private asylums. In the latter instance the cures were only 9·35, but for the most part these results were obtained on the *residua* of many years. The percentage was not on the number under treatment during the whole history of any particular asylum or of all the asylums mentioned in the Blue Book. Admissions and the number under treatment were the same in the instance given of patients treated in lodgings, but not so in one year's treatment of the patients in an asylum which has been open for more than a year. Besides, the cases that had been placed in the lodgings referred to were probably of a very different class from those sent to asylums. With reference to the celebrated case of Nottige cited by the author of the paper, in which the Lord Chief Baron gave the opinion that every patient should be liberated who was not injurious to himself or others, it was in the opinion of other authorities very doubtful, looking at the Lunacy Acts, whether that opinion could be taken as at all final, and certainly the reply of the Commissioners was, he ventured to think, far more to the point than the remarks of the Lord Chief Baron. Surely there were cases in which they would wish their own friends, if insane, to be in asylums, believing them to be placed there for the purpose of being cured, although they were neither injurious to themselves nor to others. With these observations, he would call upon Dr. Weatherly to reply.

Dr. WEATHERLY, in reply, said he was afraid his paper had been a good deal misunderstood. It seemed as if a number of gentlemen came there with the idea that he was going to abuse private asylums, and then spoke as if he had done so, in spite of the fact being that he did not say one word against asylums from beginning to end. He must call himself an asylum proprietor, having a licensed house, and was a firm believer in small asylums, and also in large asylums for certain cases. He had simply asserted in his paper that there were certain cases of insanity, more especially in the early stage, and chronic harmless cases, that could be looked after just as well, and in very many cases more happily, in private houses than in asylums. He maintained that the law of lunacy was radically wrong with regard to single patients. He

did not see why Tom, Dick, or Harry should be allowed to take any single insane patient into their houses. They knew that there were people who took patients into their houses who were not in the least fitted for it, and consequently medical men who desired to do good, and took an interest in insane cases, could not get them. He maintained that every person who took a single patient into their house should get that house licensed, for why should he, with two patients, be put to enormous expense to get his license when any person could take a single patient without incurring any expense at all? Dr. Wood brought forward isolated cases to prove that asylum treatment was better apparently in every case than private treatment. He (Dr. Weatherly) must say that although association with an asylum might be good for such cases, there undoubtedly were cases where the association was bad. He had seen several such cases, some of which had been cured in a very short time under his care, whereas they had previously been two years in an asylum. The last case he had was one of religious mania, where the patient had been in an asylum for 18 months. He was treated privately, and got well in four weeks so far that for the first time for some years he argued reasonably with his father that it would not be wise for him to go on with his religious studies, and had better do something else. The result was he was now doing very well. In another case of recurrent mania the patient was in an asylum for 18 months, and he was satisfied that untold mischief had been done to her. She had been under his care for two months, and would return home to her family in about a fortnight's time. The attack of mania in his house lasted just six days; after that she had been with the rest of the family, and was now better than she had been for years. He was, therefore, sure that although there might be cases where association was good, there were other cases where it was radically bad. Dr. Wood spoke of some unfortunate pauper who came from an almshouse and preferred to live in the asylum. Of all miserable and horrible places to live in, an almshouse must be the worst, and he should regard it as a good proof of the man's sanity that he preferred to live at St. Luke's. He (Dr. Weatherly) had not argued at all against asylums; he merely said that certain cases were suitable for private treatment provided they were put in the hands of men interested in the study of insanity. That could not be done unless it was developed into a recognised system, and that could only be done by licensing the houses. With a better supervision, many cases which were now in private houses, but ought to be in asylums, would go to asylums. Dr. Rayner's remarks about statistics had been very fully answered by Dr. Lockhart Robertson in a letter which he published last week. He agreed with Dr. Stewart in most of his remarks, more especially with regard to early treatment. It was a very strong point in his paper that the relatives and friends of insane patients were much more likely to put them under treatment early if they knew that there were medical men in their neighbourhood or elsewhere who took a distinct interest in insanity, and could treat them equally well with the asylum people. They could then get early treatment adopted, and many cases might be cured much more quickly than at present, and possibly cases that were never cured at all. He thanked Dr. Sutherland very much for his remarks, but he was labouring under a distinct mistake in saying that he (Dr. Weatherly) advocated that suicidal and homicidal cases or melancholic cases with stupor were suitable for private treatment. What he did say was that certain cases of suicidal mania might be well treated in private houses. He had had two distinctly suicidal cases himself; they recovered, and he knew they were looked after just as well as they could be in an asylum. With regard to Dr. Tuke's remarks on the statistics of recovery in private asylums, he had merely quoted from Dr. Bucknill's book. In conclusion, he begged to thank the members for the kind way in which they had received his paper.

The PRESIDENT said they were much indebted to Dr. Weatherly for having

brought the subject before them. It was often those papers which caused the most dissent which were the most valuable for these meetings.

Dr. SAVAGE introduced the question of:—

Insanity as a plea for Divorce.

He mentioned the particulars of a case in which he had recently given evidence in the Divorce Court, and the plea had been admitted (see "Insanity as a Cause for Divorce." Notes and News, p. 150.)

The PRESIDENT said the law of England on the subject seemed very clear—not the Statute Law, but the *lex non scripta*. He believed there was no Statute Law on the subject. One was made in George the Second's reign with regard to chancery lunatics, that the marriage should be annulled; but that Statute was repealed quite recently because it was thought that all lunatics should stand on the same basis of the Common Law, namely, that if any one is proved to have entered into the marriage bond in a state of insanity the fact is sufficient to annul it, on the principle that marriage is a civil contract, and must be entered into with the consent of capable persons. As it follows that the contracting parties in marriage must be of sound mind, the question to be decided was what would the Court consider constituted such a degree of insanity as to render the marriage void. Originally, no doubt, the opinion was that partial insanity was not a sufficient cause; but what partial insanity was gave rise to vast differences of opinion, and Sir James Hannen had recently stated that he would admit all such cases—that partial insanity, had such vast ramifications that he could not pretend to say that one case of insanity would be a cause for divorce, and another would not, and therefore, as far as his opinion went, he had thrown the door open more widely than before. If contracted during a lucid interval, a marriage would be binding. Blackstone mentioned four cases in which a divorce had been demanded on that ground, and since Blackstone's time there had been at least four or five instances in which the fact of insanity having been proved at the time of marriage was considered in an English Court a sufficient justification for divorce. Therefore the instance referred to by Dr. Savage was not a solitary one. With regard to insanity supervening after marriage, he supposed they would be generally agreed that, if allowed, the abuse would be so great that it could hardly be carried out, although this was in some countries. In Saxony, for instance, he believed that leprosy, syphilis, epilepsy, and insanity, if incurable, were sufficient reasons for divorce, even when occurring after marriage. The English law or practice upon this subject seemed to him the rational one. He might add that a year or two ago he had some correspondence with Delasiauve, the great authority on epilepsy in Paris, on the question of divorce in this disease when present at the time of marriage, and he related an interesting case in which an epileptic married, and on the same day he was seized with a violent epileptic fit. Delasiauve was consulted, and did all he could to have the marriage annulled, by bringing the subject under the notice of the Minister of Justice. He failed, however, though cohabitation was delayed three weeks. The fits became more and more frequent, and he died in three years, leaving three children. The French law, therefore, does not appear to recognise dissolution of marriage for epilepsy, and yet a French Civil Court did, in 1844, annul a marriage contracted by an epileptic. The man in this case murdered his wife's father on the day of the wedding. The parties had not cohabited.

The discussion on Dr. Savage's paper was then adjourned to the next meeting.

Dr. H. SUTHERLAND in introducing "A Case of Artificial Feeding, with Suggestions for Apparatus," said the case was one of a private patient admitted into his asylum on the 21st April, 1881, and discharged on November 6th, 1881. In that period he was fed 148 times, the period of feeding extending over six months. The remarkable part of the case was that the patient, aged 30,

and particularly strong and muscular, possessed a power of co-ordination over his muscles such as he (Dr. Sutherland) had never met with previously. He seemed to possess an extraordinary power of obstructing the pharynx with the tongue in such a manner as to obstruct the tube. At first he tried a gag, for the knowledge of which he was indebted to Mr. Browne, at Wakefield, the prongs of which, when placed in the mouth, projected somewhat across the œsophagus and frequently obstructed the passage of the tube. Moreover, if the patient twisted his head, he was very liable to turn it round so that it slipped out of the mouth. It occurred to him that if those prongs could be turned upwards and downwards so as to hook, as it were, round the gums, that might be obviated. He subsequently designed a gag which he called the fishtail gag. This was placed in the mouth and then turned at right angles. The two parts of the gag hooked round the gums, there was no projection of prongs in front of the œsophagus, and, moreover, if the patient twisted his head, there was not the liability for the gag coming out of the mouth which there was in the gag he used at Wakefield. The patient took every opportunity to make feeding by the mouth as disagreeable as possible; he took to bellowing like a bull, making as much noise as possible. The weather was extremely hot at the time; he had several other anxious cases on, and it was really a matter of some anxiety and fatigue to feed this patient twice a day. He resolved to try the nasal tube, but found this disadvantage, that he could only pour very liquid food down the funnel. In consequence he got Mr. Weiss, of the Strand, to rig up the apparatus exhibited. A piece of ordinary catheter tube was passed down the nose of the patient. At the other end was a tube connected with a Higginson's syringe, and by using that they were able to squirt a considerably thicker soup through the tube than they could simply by putting down the funnel. There was considerable force in the syringe, and he really used it to relieve himself from the painful battle which ensued twice a day when he had to feed the patient. Another disagreeable symptom was that the patient had the power of secreting an immense quantity of greasy saliva at will, and the consequence was the ordinary tube slipped from beneath the finger owing to the greasiness of the patient's saliva. It occurred to him that if the tube, instead of being round, was made flat, that difficulty might be overcome. He had had one made, and hoped that by putting it upon the tongue and passing it downwards he should not meet with the same difficulty and resistance that there was with the round tube. (See Clinical Notes and Cases, p. 53).

Dr. GARDNER said he had found in very critical cases indeed that especially when the pharynx was narrow and the mouth considerably constricted he could only pass a tube during inspiration. His plan had therefore frequently been to pass a tube to the end of the pharynx and wait patiently until the inspiration came, and then the tube would pass readily. He once had a very bad feeding case where it was impossible, under any circumstances, to pass a tube either during expiration or inspiration, and he adopted the plan of passing a common silver teaspoon, with a tapering stem, underneath the gag, then passing the tube and using the teaspoon as a lever, at the same time depressing the tube. In the introduction of food great care was necessary to prevent vomiting or sickness, and he had had many patients who, during the act of injecting the food, had expelled it. There, again, difficulty was experienced. If they gave the food during inspiration, it was impossible for the patient to reject it; but if it was thrown against an expiration, it might be rejected. He had tried the elastic syringe, but found practically it was almost impossible to use it, and he had been in the habit of using an apparatus with a little breast syringe attached with a very small tube. He superintended the operation of inserting the tube, and then let the nurse or attendant use the syringe. When he had no instrument at hand his plan had been to paralyse the buccinator muscle by firm pressure upon the lip on either side. The patient was put, say on the floor, and then going

behind him, he passed his fingers well into the mouth, and paralysed the buccinator muscle in that way. The nurse then poured the food into the mouth until it was full; then pressing the nose with the forefinger, he waited for an inspiration, admitted the air, and let the patient swallow the food. These were expedients they were obliged to resort to in artificial feeding when they had no syringe or other apparatus to work with.

Dr. MICKLE said it was a very great advantage to be able to substitute an india-rubber tube for the ordinary tube of the stomach pump. It gave much less trouble, and was better in every way.

The PRESIDENT said they had heard valuable suggestions as to the best methods of artificial feeding. He should like to hear what any gentleman might have to say who avoided it altogether, or nearly so.

Dr. RAYNER said for some years past he had not had the necessity to use the stomach pump, and he was very much inclined to think it could be done without to a very large extent. He did not know why his experience should differ from that of others; but it was so. When he was at Bethlem he used to feed very freely indeed, and on going to Hanwell he certainly had no prejudice against feeding as a process, and he had no prejudice against it now. Possibly one rule that he adopted might afford some explanation of the matter, viz., that whenever a patient refused food he took that as an indication that he absolutely required rest, and the patient was at once put to bed, and kept in bed. He was there fed by the attendant, who was very skilful in getting patients to take food, and at the end of four or five days his appetite generally seemed to return to some extent, and there was very little difficulty in giving him his food. That led to the question why was it that some men had the power of feeding patients and others had not. The great success of that particular individual had led him to consider the difference between this man and another who utterly failed to feed the patient. There were, of course, cases of refusal to feed occurring in different wards of the house, and in very many cases the attendants tried and failed to feed. In such a case he took the patient to the infirmary where this particular attendant was, and he would feed him without difficulty. What was the reason? It was simply this, that one man merely took the patient and put the food to his mouth, perhaps trying to open his mouth, and so on, but did nothing else, whereas the successful attendant divided the patient's attention; all the time he was feeding him he was talking to him; he had got his hand round his head, he attracted the attention of his sight by his gestures, of his hearing by his voice, and so got the power of feeding him. So far as he could, he instructed all the attendants that that was the basis of success in feeding, and it was, no doubt, also the basis of success in managing excited and violent patients. One man could do nothing with an excited patient, whereas another could do what he pleased. It was just in the same way, he divided the patient's attention between his sense of hearing, his sense of touch, and his sense of sight, and in that way could do what he pleased with him.

A Quarterly Meeting of the Medico-Psychological Society was held in the Royal College of Physicians, Edinburgh, on Wednesday, the 9th November, 1881. Among those present were Drs. Ireland (chair), Brodie, Cameron (Lochgiephead), Cameron (Rosewell), Campbell, Clark, Clouston, Dunlop, Fraser, Grierson, Johnston, McDowall, Ronaldson, Rutherford, Tuke, Turnbull, Urquhart, Yellowlees, &c.

The minutes of last meeting were held as read.

Dr. James R. Dunlop, Woodilee Asylum, Lenzie, showed a patient from the asylum presenting many of the features of pseudo-hypertrophic muscular

paralysis. The patient was aged 26 years, and his mental condition was that of dementia with hallucinations of vision and hearing. For the last five years there had been a progressive atrophy of the muscles of the legs (without pre-existing hypertrophy), accompanied by loss of patella tendon reflex, but unaccompanied by loss of common sensation, temperature, sensibility, or pain sensibility. The atrophy was general and practically symmetrical. The abdomen was thrown forward, and there was a corresponding lumbar curve. The feet were planted widely apart, and there was considerable difficulty in walking. There was no inco-ordination, however, and the patient was able to stand with the feet approximated and the eyes closed. When walking the gait was "wobbling," there being no "shuffling" of the feet along the ground. There was no spinal tenderness or talipes equinus. The legs were much discoloured, being livid, and presenting a mottled appearance, due to the degrees of tint. The pelvic reflexes were normal, as he had full control over the bladder and rectum, and was a habitual masturbator. The family history of this case was also uncommon. His father previous to marriage received an injury to the brain, and afterwards became liable to paroxysmal attacks of intemperance, during one of which he became insane. He continued insane for five years, and then died of apoplexy. Patient had two sisters, aged 27 and 39, who are affected with the same disease as himself. They are fairly intelligent. In their cases hypertrophy of the muscles is said to have preceded the atrophy. One has had two illegitimate children since the disease commenced, both of whom are dead. Patient has a brother, an inmate of the New York State Asylum at Utica. A brother, sister, two maternal aunts, and two maternal cousins have died from phthisis pulmonalis, while a maternal uncle is presently suffering from that disease, a brother died young from "convulsions," while a maternal uncle was epileptic, and, lastly, his mother had two cousins of different family affected with the same disease as the patient.

After some remarks from Drs. Ireland and McDowall on the interest attaching to this case,

Dr. CLOUSTON then submitted some microscopical specimens of cerebral vessels which had undergone a peculiar change.

The CHAIRMAN said the question which Dr. Clouston had very well put was whether any of us had ever observed a case of the same kind, and whether any facts we know would lead us to suppose that the condition described existed during life, or came on during the forty-eight hours which elapsed between the death and the post-mortem examination? In any case the brain must have been in a very peculiar condition during life.

Dr. CAMPBELL thought that the theory regarding post-mortem decomposition was the correct one.

Dr. MCDOWALL thought the case one of pigmentary meningitis. The history of the progress of the case, he said, agreed with this view.

In answer to a question, Dr. CLOUSTON said there was very little basal change. The great difficulty he had was that the colouring matter was so intensely black; in fact, it had the appearance of a miner's lung instead of being of a brown colour.

Dr. CAMPBELL then showed some specimens of cystic kidneys from the bodies of patients who had died insane, and which he said were pathologically interesting. The casts were prepared by Dr. Maclaren, Senior Surgeon to the Cumberland Infirmary, and the colouring was most natural. The first cyst was that of a right kidney found at the autopsy of a patient who died of embolic brain softenings and heart disease, both the result of former rheumatic fever. There was only one kidney present. Its shape and the four lobes which composed it were very irregular. There were two ureters attached to the bladder, both similar in size. The artery attached to the left side entered the cortical substance, and crossed the spinal column, this abnormality of the artery being not uncommon. He had noticed it several times

lately. The next specimens shown were ordinary cystic disease of the kidney. The first specimen of the series had one cyst implicating only a small portion of the cortical substance of one kidney. The next specimen had both kidneys much affected by cystic degeneration. They were found at the autopsy of a male patient, aged 66 years, who had only been a few days under Dr. Campbell's charge. He had great hypertrophy of the heart, and was said to have been drunk for twenty years, but he had no œdema of the legs or dropsy. It was unusual to see double cystic disease, especially such a symmetrical specimen. The last specimen was a cystic kidney in a more advanced stage than the others; little or none of the kidney structure proper was present. The other kidney was healthy. During life there had been no indication of this morbid condition.

Dr. BATTY TUKE showed some illustrations of the art of photography applied to the study of pathological conditions of the brain.

A paper was read for Dr. JAMES C. HOWDEN on "Notes of a Case of Mania with strong hereditary tendency to excessive constipation and to self-mutilation accompanied by hyperæsthesia, &c." ("Clinical Notes and Cases," p. 49).

The CHAIRMAN—We are very much obliged to Dr. Howden for bringing this very curious case under our notice. I think Dr. Howden, notwithstanding the fact that he has worked very carefully on the subject, and has also made a very careful post-mortem examination, has not thrown any light or explanation on the greatest peculiarity of the case, which I think consists in the extreme tendency to self-mutilation.

Dr. RONALDSON—I happened to assist at the post-mortem examination of the case, and I remember it very well. For several years she lay constantly in bed, and the moment any one came near her she screamed and complained of pain at once. With regard to the intestines, there was nothing found of any pathological interest. I remember examining the chest and finding the ribs folded or doubly bent, causing the thoracic cavity to be considerably bent, and without any inconvenience to her.

Dr. RUTHERFORD—The bones were very soft?

Dr. RONALDSON—Yes; I could cut the end of the femur like cheese.

Dr. CLOUSTON—From a physiological point of view, the hyperæsthesia and the tendency to self-mutilation would mean a feeling of extreme discomfort in the part attempted to be mutilated, and the symptoms and degeneration of bones, &c., show that there was an extreme affection of the trophic centres of the brain, and the sensory centres were also affected. We must read such a case in the light of all the symptoms combined, and I am sure that we are all very much interested and indebted to Dr. Howden for his statement of the case, an exact parallel to which I do not remember to have seen anywhere.

Dr. CAMPBELL—Is Dr. Clouston of opinion that self-mutilation is more commonly a feature of a case where you have a distinct lesion than where the nervous disorder is merely functional?

Dr. CLOUSTON—I am not prepared to answer that question. It does not strike me at present that self-mutilation is especially connected with gross brain lesion, so far as I remember.

Dr. MCDOWALL—The presence of constipation must also be considered an indication of impaired nervous action. I may mention the case of a gentleman, and the malady seems to be increasing on him, who suffers dreadfully from constipation. His bowels only act nine or ten times a year, yet he is in the active discharge of professional duties, and seems to enjoy fair health otherwise.

DISCUSSION ON THE NEW STATISTICAL TABLES RECOMMENDED BY THE COMMITTEE OF THE ASSOCIATION.

These were discussed at considerable length, and the discussion was adjourned till the next meeting. The ultimate result will be given in the July number of the Journal.

BRAIN FORCING IN MODERN EDUCATION.

I cannot help here adverting to the absurd and unphysiological theories of education which are sometimes taught, and which we as medical men should combat with all our might. The old practice of attending to the acquisitive and mnemonic faculties of brain alone in education is now fortunately giving way. The theory of any education worth the name should be to bring the whole organism to such perfection as it is capable of, and to train the brain power in accordance with its capacity, most carefully avoiding any over-straining of weak points; and an apparently strong point in the brain capacity of a young child may in reality be its weakest point from hyper-activity of one part. I have known a child with an extraordinary memory at eight who at fifteen could scarcely remember anything at all. Then, as the age of puberty approaches, one would imagine, to hear some scholastic *doctrinaires* talk, that it was the right thing to set ourselves by every means to assimilate the mental faculties and acquirements of the two sexes, to fight against nature's laws as hard as possible, and to turn out psychically hermaphrodite specimens of humanity by making our young men and women alike in all respects, to make our girls pundits and doctors, and our young men mere examination-passers. If there is anything which a careful study of the higher laws of physiology in regard to brain development and heredity is fitted to teach us, it is this, that the forcing-house treatment of the intellectual and receptive parts of the brain, if it is carried to such an extent as to stunt the trophic centres and the centres of organic appetite and muscular motion, is an unmixed evil to the individual, and still more so to the race

Some educationalists go on the theory that there is an unlimited capacity in every individual brain for education to any extent, in any direction you like, and that after you have strained the power of the mental medium to its utmost, there is plenty of energy left for growth, nutrition, and reproduction. Nothing is more certain than that every brain has at starting just a certain potentiality of education in one direction and of power generally, and that it is far better not to exhaust that potentiality, and that if too great calls are made in any one direction, it will withdraw energy from some other portions of the organ. These persons forget that the brain, though it has multiform functions, yet has a solidarity and interdependence through which no portion of it can be injured or exhausted without in some way interfering with the functions of the other portions. Even the very anatomical and histological composition of the organ might teach us this. The way in which its several elements that minister to mental functions, motion, sensation, regulation of temperature, and nutrition, are mixed up in the cortex, and even in the centres lower down, have as yet defied our anatomical and physiological investigations even to distinguish the one clearly from the other. To say that any one man could have the biceps of a blacksmith, the reasoning powers of a Darwin, the poetic feeling of a Tennyson, the procreative power of a Solomon, and the longevity of a Parr, is simply to state a physiological absurdity. No prudent engineer sets his safety-valve just at the point above which the boiler will burst, and no good architect puts weight on his beam just up to the calculation above which it will break. Nature generally provides infinitely more reserve power than the most cautious engineer or architect. She scatters, for instance, seeds in millions for hundreds to grow, and she is prodigal of material and strength in the heart and arteries beyond what is needed to force the blood-current along; therefore we have no reason to think that any function of the brain should be strained up to its full capacity except on extreme emergencies, or that any of the receptive or sensory brain-tissues should be stored choke-full of impressions for the purpose of being frequently called up again as representations. Especially do those principles apply if we have transmitted weaknesses in any function or part of the organ; and what child is born in a civilized country without inherited brain weaknesses of some sort?—"*Puberty and Adolescence, Medico-Psychologically Considered*," by T. S. Clouston, F.R.C.P.E., F.R.S.E.

BROOKWOOD ASYLUM COSTUME BALL.

The Brookwood Costume Ball, each year apparently a greater success than the last, this year eclipsed all others in brilliancy, variety, and splendour, and Dr. Brushfield and the other popular officers of the institution may be said to have reaped the highest reward for their, as usual, untiring efforts to make the event one worthy of the occasion. The gay and dazzling scene last year afforded material for a striking illustration in the "Illustrated London News," and it would be almost easier in this way to convey some idea of the effect than by any pen-and-ink sketch. Of this we are sure, that no one who was present will ever forget the marvellous and peculiar sight. And it ought at once to be known that not a single farthing towards the expenses of the ball comes out of the ratepayers' pockets. The ball is popular, Dr. Brushfield is popular and esteemed, as well as admired for his versatile accomplishments, and there is therefore no difficulty in raising sufficient subscriptions to defray the whole of the expenses, thus adding immensely, for one evening at least, to the gratification of several hundreds of patients, and to the enjoyment, in a manner impossible elsewhere, of a large number of the *élite* of the county. For the third time then the Brookwood Fancy Ball has attracted a larger number of visitors than ever, the difficulty indeed being to meet applications from a number of unexpected quarters. About 230 visitors were present, and we have never seen the spacious recreation hall more handsomely adorned. Some idea of the extent of the decorations may be imagined from the fact that no fewer than 800 plants were brought into requisition, furnished from the asylum gardens, doing great credit to the horticultural ability of Mr. R. Lloyd, the head gardener. The attendants, and some of the inmates, under the supervision of the superior officers, undertook the work of decoration, and the skill and taste displayed were surprising. Festoons of evergreens and coloured papers depended from the rafters, and devices of various kinds appeared upon the walls, whilst between the windows were brackets of virgin cork, on which stood ferns and foliage plants, with a background of scarlet, edged with leaves. In front of the stage was arranged a bank of moss, in which rested variously foliaged plants, and on either side were tall and graceful palms and ferns, from the midst of which statuary looked out. The stage was mainly decorated under the supervision of Dr. Moody, who also admirably utilised some Japanese lanterns, each five feet high, which through him had been made in Japan expressly for the occasion, and had only arrived the previous day. These and a large number of Chinese lanterns greatly added to the appearance of the Hall.

The patients assembled to the number of nearly 400, at half-past seven, and promenaded round the room to the Royal Salute March, played by the excellent asylum band, which occupied the orchestra till the arrival of the visitors at nine o'clock, when its place was taken by the band of the 1st Battalion Queen's Royal West Surrey Regiment, which attended by kind permission of Colonel Hercy and the officers. The preliminary march was, perhaps, the prettiest sight of all, and wonderful ingenuity and skill were displayed in the various costumes of the patients. One or two original characters were noticeable, and some of the "makes-up" were most ludicrous. The Woking Water and Gas Company were personified in two or three cases, one person being cleverly got up in a black dress with the words on his breast "Woking Gas and Water," and a large square hat on his head, inscribed with the word "Anthracite." A young woman was attired in white, and bore a banner with the device "Woking Gas and Water." Another person was enclosed in a huge imitation tub, we suppose to represent the "drunkard's cloak," "Fine Old Tom" appearing on his breast, and "Best London Gin" on the back. A grotesque get-up was that of a patient who had his head covered with muslin, and carried a counterfeit cranium. It is not easy even

to describe the many and varied costumes assumed on the occasion by the inmates, but it was a pleasing sight to see the way in which the poor demented creatures entered into the spirit of the affair. Some of them danced, too, in a manner which might put to shame many professed devotees of Terpsichore. Dr. Brushfield, in his character as David Garrick, personally superintended this part of the proceedings, assisted by his able coadjutors, Dr. Barton, as the Duke of Marlborough, and Dr. Moody, as Charles Surface, their efforts to amuse and make every one comfortable being ably seconded by Mr. W. Cappe, Clerk and Steward (who has occupied his present position since the opening of the asylum), and the numerous attendants, all of whom were becomingly dressed, Mr. Turner, the courteous head attendant, looking well as a Beefeater, whilst Miss Flint was admirable as the Queen of Hearts. At the hour of nine the visitors began to arrive in quick succession, and soon afterwards the military band named above struck up the La Berceuse valse. When the evening had advanced, and the ball was at its height, the scene was most brilliant and gorgeous, and one might well have fancied it was all a dream. To attempt to describe the costumes would be a task of considerable difficulty, but the list which we publish below will show that besides those characters invariably to be seen at fancy dress balls, some of the guests had hit upon novel ideas. Military uniforms also largely prevailed, and lent a great variety to the whole. As for the strictly fancy costumes, every century and country almost had been ransacked to supply materials. Historical personages mingled together in a strange medley, either in the giddy valse or stately promenade, and the assembly was quite a cosmopolitan one, representatives being present of Ireland, Scotland, Wales, Mexico, Alsace, France, Corsica, Malta, Circassia, Germany, Spain. Sicily, Poland, The Tyrol, Persia, China, India, Norway, Arabia, Egypt, Flanders, and Italy. Scott, Dickens, and Thackeray had been searched, and opera was also brought into requisition, "Patience" furnishing one or two *rôles*, as well as the ever popular "Cloches de Corneville" and "Pinafore." The visitors freely mingled with the patients in the body of the hall, though the stage was specially prepared for their accommodation. Dancing to music so exquisitely played was no doubt immensely enjoyed by all who participated in it, but some at least of the guests as they moved about in their varied costumes were making mental notes of all they saw. Here could be noticed Mr. C. P. Phillips, a well-known Lunacy Commissioner, apparently delighted and amazed; there Dr. D. Hack Tuke, the President of the Medico-Psychological Association, evidently thinking he had lighted upon a wide field wherein to pursue his researches. In another group could be seen several magistrates of the county, and the chairman of one of our most important Boards of Guardians. Not far off was another gentleman, one of the best authorities in England on poor-law matters, who looked exceedingly interested in the scene around him. Besides there were present several superintendents of other asylums, and amongst them one who was for some years a faithful coadjutor of Dr. Brushfield's. Although the dancing never flagged, social chat also flowed on, and even the few non-dancers thoroughly enjoyed the pleasant sight, and we are sure experienced much gratification and pleasure.

Our recollection carries us back to now nearly seventeen years ago, when the Brookwood Asylum was opened, and Dr. Brushfield came there as the medical superintendent. We have noted as the years rolled by how, under his skilful management, improvement after improvement has been effected. Lunacy in the county of Surrey has unfortunately in these years greatly increased, and as a consequence accommodation is now found here for over a thousand patients. But Brookwood, with its many acres, has also been converted from a waste common into one of the most profitable and most beautiful estates in the county. Besides a farm supplying many wants of the asylum, and thus lessening the cost per head of the inmates to the ratepayers, there are beautiful gardens and avenues filled with fruit trees, and valuable

shrubs and timber. Again, in the asylum itself there are all manner of workshops, where a large number of the inmates are usefully employed. While no one would sooner acknowledge than Dr. Brushfield himself that to bring about all this, he had been ably assisted by the officers under him, and in a special degree during the last eight years by Dr. Barton, yet his has been the directing mind, and it is with unfeigned regret that we have heard, and that the county will hear, that he considers that the time has now come when he must hand his great work over to others to carry on. Although we are not aware that Dr. Brushfield has formally sent in his resignation, yet we believe we are not betraying confidence when we say that he will probably not be the ruling spirit at another Fancy Ball. This, at all events, we do know, that Dr. Brushfield will not only leave his mark as one of the highest authorities on lunacy matters, but as one possessed of the highest administrative talent, and as having made Brookwood Asylum the model of what such an institution ought to be. He has also made troops of friends, who will, while they will miss him much, entertain many pleasant reminiscences of visits to Brookwood, either to Fancy Balls or other enjoyable entertainments. —*The Surrey Advertiser*, Jan. 14, 1882.

DR. BRUSHFIELD'S RETIREMENT.

Dr. Brushfield resigned his post January 20th. We believe that he will, on leaving, have completed a term of 16 years at the Brookwood Asylum. As he had been previously nearly 14 years at the Cheshire Asylum, he has had 30 years' hard work and anxious responsibility, and has certainly earned a repose which, we trust, he may long enjoy. We remember the time when he attended the clinical lectures, delivered at Hanwell, by Dr. Conolly. He has proved an apt pupil, for, we believe, he has never ordered or sanctioned the employment of restraint in either asylum. But Dr. Brushfield is not a man of one idea, and he has proved himself an admirable superintendent in all ways. Nor is he a mental physician only. His pursuits are far-reaching enough to prevent his being in danger of suffering from ennui in his retirement. Archæology and philology, to which he has already contributed, will, we doubt not, be gainers by his leisure. We would, however, put in a claim ourselves, and hope that the pages of this Journal will, from time to time, be enriched by notes of the results of his varied experience. We are glad to know that the Committee has shown its appreciation of his services by recommending the next Court of Quarter Sessions to allow him a pension of £700 per annum.

INSANITY AS A CAUSE FOR DIVORCE.

In the Divorce Court on Friday, Dec. 16th, a very important case was settled in reference to insanity. The case was Hunter *v.* Edney. In this case a woman was married, but refused on the wedding night to allow the marriage to be consummated. The husband sent for the mother of the woman, who took her home after she had been seen by Dr. Miskin, a general practitioner in the neighbourhood. Dr. Miskin was of opinion that then she was insane. Some few weeks later Dr. Savage, of Bethlem, saw the case, and decided that the woman was suffering from melancholia, and not fit to enter into a contract, and that in his opinion she had so suffered for some time. The whole case took but a short part of one day, and there was really no opposition, for though the wife was in court, and elected to go into the witness-box, she did not deny any of the statements made, but said that she had no knowledge of some of the things which were proved to have taken place

during the time soon following her wedding. Thus, she did not remember, so she said, making an attempt to strangle herself. The judge, Sir J. Hannen, summed up clearly and fairly, and pointed out that the woman did not appear capable of understanding actions free from the influence of delusions, and was therefore incapable of entering into a contract like that of marriage, and he decreed the marriage *null.* This is the first case of the kind which has been decided, and is not by any means a solitary one, so far as the insanity and marriage are concerned. During the past year several cases have, we believe, been in Bethlem in which marriage was not consummated in consequence of insanity. In one a man heard a voice telling him he must not touch his wife, and the same patient later heard a voice telling him not to eat. The case decided is a first one, and is incomplete. What line would have been followed if the marriage had been consummated, and, still more, if a child had been begotten? The inability to contract would have been the same, but we fear there might have been greater difficulty to persuade a jury if a jury had been deciding—that a divorce was justifiable. In murder cases the feeling of many is moved against taking human life, but the lifelong misery caused by an unjust marriage in which one of the contracting parties was insane, is a suffering of the innocent which is unhappily overlooked. Such cases make it all important that something should be done, and every step such as the one reached in the above decision carefully watched.—*The Lancet*, Dec. 31, 1881.

THE COUNTY GOVERNMENT BILL.

In consequence of the reference in the Queen's Speech to a forthcoming County Government Bill, the attention of the Medical Superintendents of Asylums has been directed to the question of its probable bearing on the government of asylums, and other matters. A meeting was held on the 21st of February in London, when considerable interchange of opinion took place. Although, as the Bill was not printed, the materials on which to form an opinion as to the necessity for action were not before the meeting, the general question was discussed. It was concluded to request the Parliamentary Committee of the Association to take the Bill into consideration when its provisions are known. This they will doubtless do.

Obituary.

ALEXANDRE-JACQUES-FRANÇOIS BRIERRE DE BOISMONT.

Full of years, the well-known and distinguished Brierre de Boismont, an Honorary Member of our Association, has passed away. He died December 25th, 1881, at St. Mandé, near Paris, at the advanced age of eighty-five. While he lived he formed a link between the era of Pinel and our own. M. Brierre would be about nine-and-twenty when the great master of the French school of Mental Medicine died. Those who had the good fortune to enjoy his personal acquaintance can bear witness to his kindly disposition, his geniality, his dignity, and the large range of medicine over which his knowledge and interest extended. When the writer visited him nearly four years ago, he displayed his accustomed urbanity, and manifested a certain sadness of manner, especially in reference to his having passed his eightieth year. But it was the loss of Madame Brierre which chiefly depressed him. When she died, who was, as M. Motet says, in the eloquent discourse delivered over his tomb, his other half in all which he undertook, much of his energy forsook him, and he ceased to take an active part in his customary labours.

The writings of M. Brierre are familiar to English alienists, some of them to a wider circle than medical readers. His work on Hallucinations must remain a classic production. If his writings were some of them popular, they were not shallow and they always contained a large amount of reliable information, expressed in well chosen language which never degenerated into writing for writing's sake. His treatises on Suicide, the relations between Civilization and Insanity, his medical and psychological reports and descriptions of what he observed in other countries, and his memoir of Guislain, prove his fertility alike of observation, analysis, and expression; while his medico-legal reports display his ability as an expert, and the conscientious manner in which he fulfilled his duty. Thirty years ago he published a work entitled "De l'interdiction des aliénés et de l'état de la jurisprudence en matière de testaments dans l'imputation de démence, avec des notes de M. Isambert, conseiller à la Cour de cassation." In an obituary notice, signed with the well-known initials, A. M., in the "Annales d'Hygiène publique et de Medicine legale," for February, it is stated that after M. Brierre had retired from public life, and his literary work seemed finished, he, one day in 1875, resumed the pen. "The occasion was rare, the situation delicate. He undertook to review a book which had just appeared, written by his daughter, Mme. Rivet. This analysis was a *chef-d'œuvre;* this work, a *resumé* of daily observations which he had experienced before he wrote them, was valuable from its absence of all scientific pretensions, and by the sincerity of its frequently touching recitals. Brierre de Boismont, impartial, judged the work from a lofty standpoint, and once more he showed those qualities which have made him so distinguished a critic. After this he wrote no more; wounded, besides, in his most tender affections, he lost, almost at once, his accustomed activity. He was entitled to repose after so laborious and useful a life. And we who have known him, who have seen him at work, we address from the bottom of our hearts our sad adieus to the *collaborateur* who has left us." In these adieus, and in affectionate respect for the memory of their regretted Associate, his English friends desire to unite with their French colleagues.

D. H. T.

We add the "Discours" of our estimable *confrère*, M. Motet, in the original, as it would inevitably lose by translation:—

DISCOURS PRONONCÉ PAR LE DOCTEUR MOTET, SUR LA TOMBE DE M. BRIERRE DE BOISMONT LE 27 DÉCEMBRE, 1881.

MESSIEURS,

C'est au nom de la Société médico-psychologique de Paris que je prends la parole; je viens exprimer ici les regrets que lui cause la perte de l'un de ses fondateurs, d'un homme dont le dévouement et l'attachement à elle furent sans bornes et qui laisse, dans ses annales, des travaux en si grand nombre que son nom est pour ainsi dire inscrit à chaque page.

Brierre de Boismont avait pour notre société un véritable culte, il avait été l'un des premiers à l'œuvre, le jour où des philosophes et des médecins réalisèrent l'alliance de la psychologie et de la médecine sur un terrain où elles devaient se prêter un mutuel appui.

Il fut tour à tour le secrétaire, le secrétaire général, le président de cette Société qu'il avait vu naître, pour laquelle il se dépensait avec une ardeur sans égale. Et, dans ces fonctions diverses, ce furent toujours la même activité, le même zèle—si bien que, ayant à prendre au milieu de tant de noms illustres, celui qui, dans le passé, personnifierait le mieux notre compagnie, celui de Brierre de Boismont viendrait au premier rang.

J'en trouvais tout dernièrement encore, en Angleterre, le touchant témoignage. On me demandait des nouvelles de M. Brierre de Boismont; ce souvenir de savants étrangers pour l'un des nôtres fit naître en moi un sentiment de

fierté que vous partagerez tous, vous qui savez en quelle haute estime étaient tenus les travaux de notre regretté collègue.

C'est qu'aussi, Messieurs, l'esprit de Brierre de Boismont se plaisait à ces questions élevées qui touchent à la fois à la philosophie et à la médecine ; le caractère de son talent était souple, délié, solide dans l'argumentation, fécond dans les applications générales. Sa plume alerte était au service d'une vaste érudition, l'on sentait dans ses écrits que sa vie tout entière était vouée à l'étude de la pathologie mentale, qu'il avait fait librement son choix, et qu'il n'entendait pas dévier de la route qu'il s'était tracée.

Laissez-moi vous rappeler quelques-unes de ses paroles ; elles furent prononcées, il y a trente ans, elles ont conservé une saveur si fraîche d'honnête et sincère conviction, qu'il nous semble entendre la voix du maître. Il citait ce passage d'Alphonse Esquiros : "Le jour où la philosophie descendra avec son flambeau dans l'étude des affections mentales, elle rencontrera une ample matière à observations nouvelles, comme dans une ville détruite on découvre çà et là des monuments qui portent l'empreinte de la nation éteinte ; ainsi, dans les grands ravages de la folie, se retrouve partout sur les ruines de nos facultés, la trace du principe immortel qui les animait." Brierre de Boismont ajoutait : "Nous croyons que le médecin aliéniste préparé par des études convenables, est peut-être l'homme le plus apte à élucider les questions de philosophie, et, pour notre part, nous déclarons hautement, qu'après le bonheur de soulager des malheureux, ce qui nous a surtout attiré dans cette science, c'est l'attrait des magnifiques problèmes de l'immortalité de l'âme, d'une vie future, d'une foule d'autres questions de métaphysique ; et, loin de reléguer ces sujets dans un sanctuaire sacré, par la raison qu'ils sont inaccessibles à nos efforts, nous les regardons comme faisant partie intégrante de la vie intellectuelle, dont ils sont, d'ailleurs, un besoin irrésistible."

C'étaient là, Messieurs, les visées hautes de l'esprit de Brierre de Boismont. Elles apparaissent dans tous ses ouvrages, et vous savez comment ils furent accueillis par les savants de tous les pays. Son livre sur les hallucinations, ses recherches sur le suicide, sur la folie au point de vue historique, sont des œuvres de la plus grande valeur ; les mémoires originaux qu'il publia, tantôt dans les Annales médico-psychologiques, tantôt dans les Revues et les journaux de médecine, n'ont pas un moindre mérite. Et ce n'était pas seulement par les qualités du savant, de l'écrivain, qu'il se distinguait entre tous, il avait montré par son voyage en Pologne lorsqu'il y alla, en 1831, étudier la marche de l'épidémie cholérique, que son courage égalait son dévouement à la science, qu'il faisait bon marché de sa vie quand il s'agissait de ces intérêts d'ordre supérieur, où l'intervention de l'hygiène, du médecin qui la représente, peut devenir la sauvegarde de millions d'existences.

Athlète infatigable, il était prêt pour toutes les luttes quand une juste cause devait être défendue, et son opinion avait assez de poids pour faire accorder au vaincu d'hier, même par un gouvernement étranger, la réparation qui lui était légitimement due.

Je ne saurais reprendre ici les travaux de Brierre de Boismont avec le développement auquel ils ont droit.—C'est l'heure des suprêmes adieux.—Saluons cette vie qui fut longue, elle eut ses triomphes, mais elle eut aussi ses déchirements cruels. Quand Brierre de Boismont perdit la femme dévouée qui avait été de moitié dans tout ce qu'il avait entrepris, celle dans laquelle il avait trouvé autant de cœur que d'intelligence, ces qualités rares dont il ne parlait qu'avec une respectueuse reconnaissance, il semble que quelque chose de lui-même s'en fût allé avec elle. Son activité tomba presque tout à coup, et nous ne le vîmes plus s'asseoir au milieu de nous. Cette place qu'il avait si dignement occupée resta vide, mais nous savions du moins avec quelle affectueuse sollicitude il suivait nos travaux. Les soins que lui prodiguaient ses enfants prolongeaient son existence ; ils ne lui faisaient pas oublier cette autre famille dont il était le doyen respecté, à

laquelle il a voulu, presque mourant, envoyer encore le témoignage de son attachement.

Brierre de Boismont, vous avez connu les joies que donne le travail, les succès qui le récompensent, l'estime des contemporains qui les rehausse. Dans ces heures calmes et recueillies qui précèdent la fin d'une vie remplie comme le fut la vôtre, vous avez dû voir passer dans une vision heureuse l'image de tous ceux à qui vous étiez cher. Ce sont eux qui m'envoient vers vous. Je vous apporte l'expression de leur reconnaissance pour tout le bien que vous avez fait, par votre exemple, par votre activité laborieuse et féconde. Je vous dis adieu, mais je vous promets, au nom de vos collègues d'autrefois, que votre souvenir sera pieusement conservé, comme on garde dans la famille la mémoire du chef vénéré.

Appointments.

Aplin, Alfred, L.R.C.P. Lond., M.R.C.S., late Assistant Medical Officer to the Nottingham County Asylum, to be Medical Superintendent of the same, *vice* Dr. Phillimore, deceased.

Barton, James Edward, M.R.C.S., L.R.C.P. Ed., Senior Assistant Medical Officer to the Surrey County Asylum, to be Medical Superintendent, *vice* T. N. Brushfield, M.D., retired.

Brown, Martin Luther, M.B., to be Assistant Medical Officer of the Male Department of the Middlesex County Lunatic Asylum, Colney Hatch, *vice* Dr. Seward.

Harrison, Thos. A., M.B., C.M., to be Assistant Medical Superintendent of the Ayrshire District Asylum.

Jackson, Thos., L.R.C.S.Ed., L.S.A.Lond., to be Assistant Medical Officer to the County Lunatic Asylum, Snenton, Nottingham.

Macleod, M. D., M.B., Assistant Superintendent, Cumberland and Westmoreland Asylum, to be Medical Superintendent of the East Riding Asylum, Beverley.

Moody, James M., M.R.C.S.Eng., L.R.C.P.Ed., to be Senior Assistant Medical Officer to the Surrey County Asylum, Brookwood, *vice* Barton, promoted.

Norman, Conolly, F.R.C.S.I., to be Resident Medical Superintendent of the Castlebar District Lunatic Asylum.

Reid, William, M.B., C.M. Aber., to be Assistant Superintendent of the Royal Lunatic Asylum, Aberdeen.

Seward, W. J., M.B.Lond., to be Medical Superintendent of the Male Department of the Middlesex County Lunatic Asylum, Colney Hatch.

Walker, Edward, M.B., to be Junior Assistant Medical Officer to the Surrey County Asylum.

Whitcombe, Edmund B., M.R.C.S., Medical Superintendent East Riding Asylum, Beverley, to be Medical Superintendent of the Borough Asylum, Birmingham, *vice* Mr. Green, deceased.

Change of Address.

Dr. W. W. Ireland, from Stirling to Preston Lodge, Preston Pans, near Edinburgh.

Erratum.—January number, p. 618, line 18, *for* posterior column *read* posterior median column.

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PART 1.—ORIGINAL ARTICLES.

*Sketch of the French Legislation Relative to the Insane.** By M. ACHILLE FOVILLE, Paris, Inspector-General of Charitable and Insane Establishments.

The question of the revision of legislation in regard to the insane is, at this time, under consideration both in England and in France. In England Parliament has been occupied with various projects of law, results more or less direct of the parliamentary inquiry of 1877. In France the Government has charged a Commission composed of Senators, Deputies, Administrators, and Physicians, to study the improvements that might be introduced into this legislation.

Under these circumstances it may be interesting for the readers of the JOURNAL OF MENTAL SCIENCE to be in possession of a summary of the French legislation, and of the modifications of which it is susceptible.

Historical Sketch.—England possesses a great number of Acts of Parliament relative to the insane; in France, on the contrary, there is only one law, that of the 30th June, 1838, which constitutes by itself the whole code of lunacy, with the exception of that which concerns the interdiction which is regulated by the Civil Code (Art. 489 and following). The law of the 30th June, 1838, had been the result of profound study and prolonged discussions, as much before the Chamber of Deputies as before the Chamber of Peers under the reign of Louis Philippe. It has constituted, in regard to an entirely new point of administration, a very remarkable legislation in every way, one which has served as a model to many other subsequent laws promulgated on the same subject in different countries.

* Dr. Foville has kindly responded to the request to write an article for this Journal, on a subject which cannot fail to interest English alienists, the more so when further lunacy legislation is probable on this side of the Channel.—[EDS.]

The object of the law of the 30th of June, 1838, was to ensure the treatment of the insane and the creation of special asylums in all parts of the country. It provided that these asylums should be under the direction or under the surveillance of public authority; that families, any of whose members were attacked with the malady, might procure for such member without delay or unnecessary publicity, the advantages of a treatment adapted to his state; that at the same time the rights of individual liberty should be surrounded by protective guarantees; that every individual placed in a special asylum might always, without delay or expense, appeal from this Act to the decision of the administration and of the Judicial Authority; on the other hand, that society should be efficiently protected against the dangers which may arise from those who have lost their reason; that, lastly, the patients thus deprived of their liberty should be protected in their pecuniary interests, and that it should be possible to defend and administer their property without necessarily having recourse to the long and expensive procedure of interdiction.

And all that it had in view it has performed; no doubt it may leave something to be desired, and cannot be complete in every respect, but, taking it as a whole, it has worked for more than forty years in a regular and uninterrupted manner, rendering to many patients and families very great service without its ever having been shown to have done injustice to any one. It is then, in its entirety, a legislative monument which does great honour to those who constructed it, and which ought only to be touched with great care.

Criticisms, however, have not been wanting in regard to it, but it is important to see under what conditions they have been produced. They scarcely commenced till 1860, an epoch from which the spirit of discussion began to revive in the French journals, although the Imperial Government did not allow the discussion either of the principle of its existence or of the principal acts of its policy, internal or external. The press in opposition had then recourse to expedients, and not having the power to attack the Government directly, it began to combat it on questions of detail relating to administration rather than to politics. Some complaints emanating from former patients discharged, more or less cured, from the asylums, or from lunatics in confinement, served as a pretext and a *point de départ;* the press affected to believe that individual liberty was menaced; alarming articles followed, and the reclamations increased. Some medical men, very

competent to form an opinion, have justly remarked at this period, "The reclamations increased in proportion as the journals more frequently attacked the law of 1838, and spoke of arbitrary sequestration; that is to say it was not the reclamations which caused the articles in the journals, but rather the articles which provoked the reclamations."

Although the basis upon which the opposition rested was not very profound, and in great measure artificial, the Government was led to take notice of it. The Senate, to which had been addressed many petitions, in doing all justice to the majority of them, had forwarded several to the Government. The Government thought the moment come to revise the law of the 30th June, 1838, and it charged a Commission composed of men which it believed to be the most competent to make the necessary preparatory enquiries. This Commission, appointed on the 9th Feb., 1869, endeavoured to fulfil its mission with a zeal which those who are conversant with its works are able to appreciate. It desired to interrogate the journalists who had attacked the Government with the greatest fury, but the majority of them abstained from replying to its call. It listened to several special physicians, and to a certain number of patients; it collected and thoroughly examined many documents. An inquiry made at its request, in all the departments, occupied much time. The Commission had just resumed its labours, and was going to make some addition and some modifications of details to the law of the 30th June, 1838, when the war of 1870, and the results which followed, suddenly put an end to its existence and labours. Several attempts at reform by the Government of the National Defence, immediately after attaining to power, could not effect anything in consequence of the course of the military and political events. Since that epoch years have gone by, during which the press has again become free, but absorbed by the great questions relative to the organization of the country, it has bestowed very little attention on the question of the insane. It was only at long intervals that any journal opened its columns to an article inspired by a praiseworthy and genuine interest in advance of the general indifference. It would be absolutely false to say that public opinion occupied itself with these questions in a serious manner. Scarcely anywhere but in the midst of the Municipal Council of Paris can one find a feeble echo of former polemics. Nevertheless the Government thought that the law of 1838, notwithstanding that it was satisfac-

tory in many respects, ought, at the end of forty years, to admit of some alterations and perfections. By a decree dated the 10th March, 1881, it appointed a large Commission charged to investigate the whole law regarding the insane. In awaiting the result of the inquiries of that Commission we may now pass in review the principal questions to which it will have to direct its attention.

General.—The law voted on the 30th June, 1838, was completed in regard to the details of its application by a Royal ordinance of the 18th December, 1839. The greater part of this law had been inspired by Dr. Ferrus, who had just been nominated Inspector General of the Service of the Insane, and who had made a voyage to England to study the *régime* of the insane in that country. It is necessary, then, when speaking of the French legislation on the insane, to bear in mind, at the same time, the law of the 30th June, 1838, and the ordinance of the 18th December, 1839; it is also necessary, when it is the question of the interior administration of public asylums, to recall the model of regulations which were proposed as a type to all those establishments, and which, recommended by the Ministerial Circular of the 20th March, 1857, had been specially prepared by Dr. Parchappe, who had become, as an Inspector, a colleague of Dr. Ferrus.

The law of the 30th June, 1838, comprises forty-one articles, divided into three titles; Art. 41 forms by itself the last title, and under the head of *general dispositions*, it indicates the penalties which may follow the non-observance of the preceding articles; but it is doubtful whether any penalty of this kind has ever been applied, and we need not, therefore, dwell upon this subject. The first title, styled *Lunatic Asylums*, comprises seven articles; the second, styled *The Admissions into Lunatic Asylums*, is divided into four sections:—

1st. Voluntary Admissions.

2nd. Admissions Ordered by Public Authority.

3rd. Cost of the Service of the Insane.

4th Regulations Common to all Persons Placed in Lunatic Asylums.

We will state at once, in order to complete the sense, not very clear, of the last section, that the question affects the facilities accorded to all patients and their friends to exercise their right of reclamation, and to take measures for the management of their property and the security of their interests. It will facilitate the comprehension of the matter,

before following, in the order of the articles, the principal dispositions of the law, and the ameliorations of which it might be the object, to give a summary idea of the functions of the different depositaries of the public authority who have to play a certain *rôle* in its application. As is well known, France is divided into Departments, in each of which the administration is exercised in the name of the Government by a Prefect. The discussion of financial and administrative interests of the Department is entrusted to an elective body, named the *Conseil General*, composed of from thirty to sixty members, according to the importance of the Department, which holds two sessions every year, one in April, the other in August. The Judicial Authority is entirely distinct from the Administrative Authority; it is constituted in every chief place of a Department or District (subdivision of the Department) by a Civil Tribunal, composed of a President and several judges; in connection with each tribunal exists a representative of the Central Authority, named Public Minister or Procurer of the Republic. The last administrative subdivision, that which may be considered as the territorial unity, corresponding at the same time to that which is called in England parish, borough, or city, is in France the Commune, and the Commune is administered by a mayor. These hasty sketches will suffice to make clear all the denominations, administrative or judicial, that we may meet with in the course of this article.

Lunatic Asylums.—The law admits of two kinds of establishments consecrated to the treatment of the insane, public and private asylums. The former are under the direction of the Public Authority (Art. 2); the latter are under the surveillance of the Public Authority (Art. 3). Each Department is required to have a public asylum, especially destined to receive and take care of lunatics, or to treat to that end with a public or private establishment, either of that Department or of another (Art. 1st). Such are the fundamental rules.

For the details of application, we must return to the ordinance of the 18th Dec., 1839. It comprises two divisions, one relative to the public asylums, the other to the private asylums.

Public Asylums.—The Departmental public asylums are administered under the authority of the Minister of the Interior and Prefects of the Department, by responsible Directors, in relation with whom are Committees of inspection whose services are gratuitous. These Committees then do

not direct the asylums as the Board of Governors of the English county asylums: they only give advice; their decisions are taken, according to the importance of the questions, by the Director, the Prefect, or by the Minister; in practice the recommendations of the Committee of Surveillance are found to be, in accordance with a previous agreement, almost always favourable to the propositions of the Directors, and are consequently adopted by the Prefect; but in the case of disagreement he is not obliged to follow them.

The Directors are nominated by the Minister of the Interior (Art. 3), who can always unite the functions of director and physician (Art. 13). It is in this way also that the medical superintendents are appointed. But one sees that the reunion of functions is optional; it is not compulsory, and, in spite of the excellent results which it has given almost everywhere, it has not become general.

Out of the 45 public asylums which exist in France, in 36 the functions of director and physician-in-chief are united; in 9 they have remained separated. Such separation is caused as much by the very great importance of the establishment, the legal obligations imposed on the physician-in-chief, and the necessity of having two in the same establishment (Charenton, Mareville, Marseille) as by, in ordinary asylums, old customs, and the difficulty of abolishing an already acquired position. In theory the directors ought to occupy themselves with the administrative and economical, as well as the general policy of the asylum; the physician is charged with the treatment of patients, and the internal management of the wards of the insane. Unfortunately, in practice, it has never been possible clearly to establish the line of demarcation between the prerogatives of the one or the other, and it could not be done, because the nature of things is opposed to it; nearly all the questions relating to the insane and asylums applying at the same time to medical science and economical administration. Consequently it is easy to imagine that the sources of conflict and the occasions of quarrel are frequent between the directors and physicians; therefore there is rarely a cordial understanding between them; when it exists, honour must be paid to the personal character of men and their common love of good. But can you secure this from everybody?

The physicians-in-chief, even when not exercising at the same time the duties of directors, were originally nominated by the Minister; since the decrees of decentralization of

1852, issued at the moment of the re-establishment of the Empire, their nomination, as well as that of the assistant physicians, has been given to the Prefect; but this modification of power has only been a dead letter, and has remained, in fact, illusory. As the changes are especially made by advance from one asylum to the other, and as nearly all the assistant physicians are chosen from the former *internes*, the Minister alone knows the whole of the medical *personnel* of the asylums, and when a vacancy occurs it is to him that the Prefects address themselves for proposals, which, with very few exceptions, are always carried out. It is very desirable that this decree of 1852 should be revised, in order that the whole medico-administrative corps of asylums may be centralized in the hands of the Minister of the Interior, and that this *personnel* should be filled up by means of competition, as is the case in France, with a great number of scientific and administrative officers. This is an opinion which has been often expressed, and the adoption of which would be very advantageous for the patients and for science.

There is only one State Asylum in France for the insane, namely Charenton, which is under the direct authority of the Minister of the Interior, without the interference of a Prefect; with this exception, the preceeding remarks are applicable to it.

There exists another class of institutions devoted to the insane; they are the "Quarters of Hospitals." In France these last institutions are of ancient origin; the majority have a separate income, an endowment, and their existence is due to the head of the State; therefore they have a certain analogy with the Royal or Chartered Hospitals of England and Scotland, but they have less independence, and are more intimately associated with the organization of the Commune where they are situated. They are directed by administrative Committees (these not only give advice, but decide), of which the Mayor is, *ex-officio*, president. The hospitals have the right to organize, for the treatment of at least fifty lunatics, special wards which are also public institutions, and in that sense they are to accept a responsible superintendent, who has the same duties and responsibility as a director of the asylums; but nothing has been decided in regard to the nominations of physicians of these lunatic wards; that is to say that, like all the ordinary hospital physicians, they are nominated, purely and simply, by the administrative Committee. This mode of nomination does not offer sufficient guarantees of

special knowledge of insanity. Without doubt, certain administrative Commissions are sufficiently alive to the good of the patients to call only those who have studied mental diseases to the care of the patients, and even, for more security, the Administration of Public Assistance of Paris has organized for this purpose special competitions. But it too frequently happens that administrative Committees of hospitals place at the head of special lunatic wards, ordinary practitioners who have never seen or treated mental disorders, and who are chosen from considerations absolutely foreign to science.

These things are deplorable, and to avoid them in the future, it is necessary that the physicians of lunatic hospital wards should be nominated, like those of the Departmental asylums, by the Minister, and form with them an integral part of the same *personnel* of alienist physicians.

Private Asylums.—The private institutions, devoted to the treatment of the insane, can only exist by virtue of the authorization of the Prefect of the Department where they are situated.

That authorization can be demanded either by a doctor of medicine or by a layman, but the latter must produce the certificate of a physician promising to undertake the medical service of the house, and submit to the obligations imposed in this respect by the laws and regulations. This physician must be submitted to the Prefect, who may revoke the appointment, but this revocation is not definite until it has received the approval of the Minister of the Interior. In practice, the only conditions required up to the present time, in such a case, for a physician to be accepted, are those which concern his personal and professional honour; it is not the custom to require from him the proof of a special aptitude for treating lunatics. This is a point upon which it would be useful to be stricter in future, at least in taking account of the practical difference which forms, in private asylums, two categories, of which we shall speak directly.

The other conditions imposed on opening a private asylum relate especially to its material arrangements in regard to the classification of the patients, according to their sex, their age, their general condition, the salubrity of the situation and the establishment, the number of attendants, and lastly, the deposit of a security in money, estimated according to the number of the patients. This deposit is intended to provide for the wants of the patients, in cases where from

some interruption in the service of the asylum, the Prefect would be required to appoint a temporary manager. Their interior rules, like those of public asylums, must be approved of by the Minister of the Interior.

A decree of the chief of the executive power is necessary to suppress the authority once given, and the ordinance lays down (Art. 31) the series of infractions which may cause this revocation. Although the conditions required for the establishment and management of private asylums be uniform for all, custom, as we have just said, has divided them into two classes. One of them comprises establishments which, according to the terms of the first article of the law, enter into an agreement with certain Departments, by virtue of which they engage to receive and take care of all the poor lunatics of the said Departments; others, on the contrary, only receive lunatics voluntarily placed there by well-to-do or rich families.

The former are large establishments belonging to either private persons or religious communities, and which, like the Departmental asylums, receive several hundreds of poor patients; they are classed under the name of private asylums, peforming the functions of public asylums. They number in France 18, and out of a total of 49,000 sequestrated lunatics in France, they contained altogether, on the 1st Jan., 1882, the number of 11,700 patients; these refuges are usually designated under the name of *Maisons de Santé*, and only receive a relatively restricted number of paying patients; they number 25, and their total population was composed at the same date of 1,312 patients.

It would appear very just to establish, between these two classes of private asylums, a difference in the action of the public authority in accordance with the nature of services which they render. The families who place their patients in the *Maisons de Santé*, by means of a payment more or less high, are absolutely free in their choice, and it must at least be supposed that they only decide, for one house rather than for another, for some known reason, and after careful examination. It is only natural that the public authority should content itself with inspecting these houses, and should assure itself that the law is scrupulously observed, without pretending to exercise over it a directing influence.

It is not however the same with the large asylums, receiving all the patients from one or more Departments, that is to say, several hundred lunatics who are not free to go and be

treated elsewhere; here, evidently, the public authority has more pressing obligations, and ought consequently to claim for itself more extensive rights. Without interfering with the financial management of these asylums, it could and ought, in our opinion, to appoint a physician of its own choice, forming a part of the *personnel* of the public asylums, and charged, not only with directing the medical treatment of the patients, but also with seeing that the clauses of the agreement relative to their hygiene, their nourishment, the whole of their physical and moral *régime*, be strictly observed. As these asylums, although private, fulfil the functions of public asylums, it would be only just that the action of the Government upon them should be more direct and more effective than upon the private *Maisons de Santé*, which have to do only with private families.

Supervision and Control.—The law, after having made enactments in regard to the existence of asylums, has had to consider their means of supervision. It is for this that Art. 4 provides as follows :—

"The Prefect and the persons specially delegated for this purpose by him or by the Minister of the Interior, the President of the Tribunal, the King's Procurer, the Justice of the Peace, the Mayor of the Commune, are charged to visit the establishments, either public or private, designed for the insane. They shall receive the reclamations of persons who may be placed there, and will take under their consideration all information with which, in their position, they ought to be acquainted. The private establishments shall be visited, at unfixed periods, at least once every quarter, by the King's Procurer of the district. The public establishments shall be visited in the same manner, at least once every six months." This article has been literally quoted, and in its entirety, because it contains the whole economy of the surveillance of the treatment of lunatics, and because it has given rise to a great deal of controversy.

Some have maintained that the surveillance thus organized was illusory, or at least insufficient; that the functionaries charged with control did not perform their duties; that when by chance they visited the asylums, they only saw that which the physicians thought well to show them, and that in short the physicians were always right. Others have replied that it was injurious to the treatment of patients, and to family secrets, to open the doors of the asylum, under the pretext of inspection, to so many different persons, and that,

instead of increasing the number of visitors, they must be restricted. To these opposite objections, it was replied that the prescriptions of the law might be considered as very good, but that their execution may have often been defective from not having sufficient sanction.

Let us now see how the law has practically worked. Let us remark, first, that the functionaries charged with the surveillance of asylums are all local, with one exception only, the officer appointed by law to be the deputy of the Minister of the Interior. These local functionaries are the Prefect, the President of the Tribunal, the Mayor, the Justice of the Peace, and the Procurer of the Republic. It will be remarked that, for the last alone, the visits are compulsory, and subject to a fixed period; for all the others they are optional. It is not far from the truth to say that these visits left optional are very rare. No doubt there are some exceptions; certain magistrates personally interest themselves in the insane, and visit the asylums; but it must be admitted that they are not the majority.

As to the Procurers of the Republic, perhaps at one time they manifested also a certain negligence in the performance of their visits, in spite of their obligatory nature. But in 1866, at the moment when the attacks against the law were most lively, the Minister of Justice reminded them of their duty in this respect, and required that each of their visits (every three or six months, according to the public or private nature of the establishment visited), should be the subject of a written report. Thanks to these orders, the visits of the Procurers of the Republic have been regular, and we can state that it is very seldom that they are omitted. It is just to add that these magistrates acquire thus an experience, relatively at least, in questions relating to insanity, as is well perceived in comparing the manner in which they judge the same things and the same patients at the beginning of their duties, and when they have performed them for a certain time. At first they think they see everywhere improper sequestrations, and persons of sound mind wrongfully confined; later on they acknowledge that under these deceptive appearances are hid real patients, and the necessity of special treatment. It is rare that, instead of being the adversaries of the physicians, they do not become their partisans and supporters; also we believe that it is the duty and the well understood interest of the asylum physicians not to put aside the magistrates charged with the inspection, and not to leave them alone in

the embarrassment of a difficult task; they should, on the contrary, give them the best reception, show them everything, and place their experience at their disposition to initiate them in the knowledge of patients. They will in all respects be gainers, and men and things will, in consequence, be estimated at their just value.

After the Procurers of the Republic, the Justices of the Peace are the persons invested with the right of inspection of asylums, and are those who most frequently visit these establishments. In the absence of any legal requirements, they have received from the Minister of Justice strict orders to make these visits, and to make a report.

That which is obtained from the magistrates of the Judicial order could be as well obtained from the functionaries of the Administrative order; for that it would be sufficient that their chief, in the absence of law, prescribed for them as a formal obligation, to visit the asylums at fixed periods, and to address to him a report written on each of these visits.

We have seen that, according to Art. 4, the Minister of the Interior must cause asylums to be visited by its deputies. These form part of the body of Inspectors-General of the Administrative Services of the Minister of the Interior. Their organization has varied. For long they formed a separate section of the General Inspection; they were then three in number, all doctors of medicine. More recently they have been confounded in one section with the Inspectors-General of charitable establishments. They are thus nine in number, of which two only are doctors; the others are mostly administrators or jurisconsults; all, without distinction, inspect every public institution, hospital, alms house, charitable house, and lunatic asylum. The Inspectors-General have not, properly speaking, to exercise any active interference, or take any personal action in the asylums. Every year they receive the list of the hospitals which they are to inspect; besides, they are sent on a special mission to this or that point of the district when circumstances demand it. They gather on the spot all the information that they can procure, and transmit it to the Minister, who considers and decides what is best to be done. Their surveillance, when inspecting an establishment, must comprise all the details of the service. Not only should they assure themselves that the law is strictly executed in that which concerns the admission, maintenance, and discharge of the patients, but they have also to verify the administrative acts properly so called, the economical manage-

ment, the financial accounts, the hygienic conditions, the alimentary *régime*, the industrial and agricultural works, &c. In a word, there is not one detail of the management of the establishments, except the profits of private asylums, which escapes their control; their function is consequently much more extended than those of the judicial officers, who have only to occupy themselves with the execution of the law and the guarantees of individual liberty.

All agree in recognising that the inspections made by the Inspectors-General of the Minister of the Interior constitute the most serious and the most efficacious mode of the surveillance exercised over the lunatic asylums; but they are not sufficiently frequent. Before the present organization these took place, in each asylum, every two years, and were always made by a specialist. At the present time they are scarcely made every three years, and most frequently the Inspector is not a physician. Protests have been raised at different times against this state of things, and the demand has been made that asylums be shall inspected in detail, at least once a year, by the deputies of the Minister. That would be one of the best measures to be taken in the interest of the service.

(To be continued.)

On Decoration and Furnishing of Asylums. By A. R. Urquhart, M.D., Medical Superintendent of the Murray Royal Asylum, Perth.

I submit the following suggestions in reference to the Decoration and Furnishing of Asylums in response to the appeal of Dr. Savage at last year's General Meeting of the Society—his request that members should take up subjects connected with the everyday practical details of asylum management. I trust that this may prove helpful, and that the limits imposed upon a single paper will not be meagre to baldness.

It is with some diffidence that one approaches a subject that is at present suffering from the evil repute of being hand-in-glove with a sham sentimentalism; but it cannot be gainsaid that the revival and development of a true artistic interest in our daily surroundings is worthy of all encouragement and fostering care. I wish to distinctly disclaim any idea of unduly vaunting decorative art, of elevating it into a panacea for the purpose of obtaining high rates of recovery

or low rates of mortality, or of interfering in the slightest with the prosecution of scientific medicine in asylums; but I do insist that it may, with best advantage, be the handmaid of therapeutics and hygiene.

Having disowned any sympathy with the melancholic fashion of so-called "high art," and having granted that art must be subservient to comfort, truth, utility, and convenience, I cannot do better than quote the moderate and healthy views of the author of the "Recreations of a Country Parson," where he says:—

"I think it is now coming to be acknowledged by most rational beings that houses ought to be pretty as well as healthy, and that houses, even of the humbler class, *may* be pretty as well as healthy. By the Creator's wise arrangement, beauty and art go together; the prettiest house will be the healthiest, most convenient, and most comfortable. And I am persuaded that great moral results follow from people's houses being pretty as well as healthy. . . . . It makes an educated man domestic; it makes him a lover of neatness and accuracy; it makes him gentle and amiable (I mean in all but very extreme cases), to give him a pretty home. Taste costs nothing. If you have a quantity of building materials to arrange in order, it is just as easy and just as cheap to arrange them in a graceful and tasteful order of collocation as in a tasteless, irritating, offensive, and disgusting one."

If these are truths in reference to the homes of the people, especially true are they of asylums, where it is sought to employ every influence to repair, to soothe, to encourage in right directions. It is easy to cheaply sneer at the gilding of cages, and to depreciate the value of artistic surroundings, but at least gaunt, ungarnished walls and rampant ugliness are not conducive to mental soundness or placid life. We have exchanged manacles and camisoles for the nearest possible approach to universal liberation—let the beneficent influence of art be felt alike by curable and incurable, that those who leave us may take fresh ideas to their homes, and that those whose lot is less happy may take pride in beautifying, as they may, the walls that shelter them; let all be taught by the rooms they live in; let the arrangement of everyday life be decent and fitting, so that the lessons conveyed may be reproduced in the lives of each.

Of course, to a great extent, decoration will remain a matter of individual taste, and it is impossible to lay down more than a few general suggestions, the amplification of

which may be varied and endless. Yet, although taste costs nothing, it cannot be obtained all at once, and it is only by the diligent study of nature, and the beautiful things of art, that it can be gained. Every man knows what pleases himself, but he is not therefore entitled to promulgate offences against certain well-known and indubitable canons of art.

For instance, it must be insisted that absolute truth is the foundation of all good work; that all ornament should consist of the enrichment of the real construction of the building; that this should in itself be beautiful, and that decoration should not be constructed for mere purposes of show and effect, and should possess in itself fitness, proportion, and harmony of design and colouring. Casting aside all graining or marbling of woods or stones, and such miserable counterfeits, we have still abundance of schemes and varieties of decorative expedients wherewith to beautify our dwellings. And until this primary rule be adhered to, and consequently followed out, the laws of good taste will be violated, and unsatisfactory results follow on our labours.

It by no means necessarily follows that simple and inexpensive things should be ugly; indeed, gilded vulgarity has arrayed itself in costly and hideous forms so long, that the straightforward, honest shape of plain Windsor chairs is a positive relief after the gnarled and deformed contortions of our "very handsome dining-room suites."

For asylum purposes, above all, we require that furniture should be fit for the uses to which it will be put. For instance, I cannot conceive why preference should be shown for the curved legs and shaped backs of the usual form of dining-room chair—wood so cut across the grain that it requires but a small force to snap asunder, and so to relegate the pieces to the carpenter's shop for repairs. One of the most suitable chairs I have seen is the form used at Gartnavel, made of birch, with a back so strengthened that very rough usage indeed is required to smash it. The spars are all straight, except the rounded top of the back, which is bent into shape. Such a chair, then, is moderate in cost, serviceable in wear, and pleasant to look at. It might easily be made more comfortable by a cushioned seat, at the cost of a few additional shillings.*

* Since this article was written I have been using Thonet's Austrian bent wood chairs, which seem to combine wonderful toughness and durability, with neatness of form, at a moderate cost. They have been in the wards with the most excited patients here for about a twelvemonth, and have stood that test without material damage. They are to be had from Blyth and Sons, Chiswell Street, E.C., a furnishing firm well known among Asylum Superintendents.

As to Decoration—There are comparatively few asylums where the labour of the patients cannot be utilized, and much is done to render the outside of the house, the garden and grounds, attractive and beautiful. The great gain is, of course, the healthful employment of the inmates, a benefit that can scarcely be over-rated or too vigorously carried out. But agricultural employment does not chime in with the inclinations of all patients; all seasons are not suitable for farm or garden work, and the intervals of out-door toil might be most beneficially devoted to the decorative treatment of blank walls and gloomy corridors. The difficulties are by no means immense. A plentiful supply of whitewash, and a selection of colours from the stores, in the hands of a few intelligent patients will accomplish wonders. In Perth District Asylum we began in 1873 with one or two modest stencils on a dormitory wall; and now the whole establishment is gaily painted by what has been a labour of love. So expert are the workmen, that there are hardly two rooms in the house of the same pattern, a pleasing variety and cheerful brightness taking the place of monotonous wards in monochrome. All this has been done without forcing the work into a hobby, or allowing it to take the place of more important matters in the smallest degree. The cost has been trifling, and the pleasure derived from it incalculable.

It is needless to say that it is most desirable that the general tone of such decoration and colouring should be bright and cheerful. We do not aim at dull sage-green backgrounds for old china and costly pictures, but at pleasant surroundings and natural and graceful designs.

I would now briefly indicate a few points with regard to the decorating and furnishing of an ordinary ward.

Should the floor be new, there will be no difficulty in staining the boards to a cheerful warm colour of reddish-brown; but, in the case of old planking, the result of staining is not so satisfactory. It is then perhaps best coloured by glazing with oilcolour to the desired shade, and varnishing over the top. There can be no doubt as to the superiority of these polished floors, they are pleasant and cleanly to the eye, and remove completely the manifold discomforts of frequent swabbings and scrubbings. A moderate amount of daily attention suffices to keep them in perfect order. This is best done by a large 12-inch brush, heavily weighted with lead, the handle being jointed to the brush with a hinge, so that the greatest possible polishing surface is always in con-

tact with the floor. The cleanly, wholesome mixture of bees-wax and turpentine is usually employed, but the least possible amount of turpentine should be used.

Linoleum is generally laid down in corridors, and I think it is an advantage to have it quite without pattern, or with a simple oil-stencil pattern along the borders, which can be renewed when necessary by home labour. In wards with very destructive patients, slips of ash wood or brass screwed to the floor prevent mischievous damage of the free edges, and need not be thick enough to be at all dangerous.

Should the floor be painted, four or five coats must be laid on, and all of the required colour, so that scratches may not appear distinctly white; and care must be taken that plenty of time is allowed for hardening and drying. Indeed, haste in painting, for whatever purpose, is fatal to permanent good effect. Floors must be painted before being sized, or the colour will very readily chip off.

In day-rooms bits of bright carpeting before the fire places and windows give an air of comfort and warmth that our climate demands. Home-made carpets and rugs, manufactured of worn out coats or stockings, are always serviceable and lasting, while they afford interesting and light employment for a class of patients that might otherwise be far less usefully employed.

With regard to the decoration of walls, an immense amount might be written, but it will be found practically that we have to fall back on inexpensive paper-hangings and ordinary paint. Of course, with abundant means, we can command the labours of artists who will transform blank walls into delightful pictures; but unless figure-drawing is well-done, it is much better to substitute simple conventional designs.

Should it be possible, however, to have cartoons of figure subjects so drawn that they can be cut into stencils, they might be transferred to the wall with excellent effect.

Stencil patterns are easily cut and applied; the materials are inexpensive, and at hand in most asylums. On ordinary cartridge-paper is drawn any required design, which is then cut out with a sharp knife on a piece of glass, so that plenty of bridges are left to hold the stencil together. Several coats of "knotting" are then applied, and when dry it is fit for use. "Knotting" is better than varnish, as it is more elastic, and the pattern can be speedily mended by using it as glue. When it is desired to place a pattern on a surface, the stencil

plate is laid on, and with a stiff tool, like a shaving brush, the colour is dabbed all over the plate, consequently leaving the mark where the pattern has been cut out. Care must be taken to use little colour in the brush, and to keep the reverse side of the stencil plate dry to prevent blurring. One or more colours may be used, and when skilfully tinted and blended, the effect is charming. The simplicity and the results of the process recommend it most favourably.

I may here indicate the way in which an ordinary ward can be decorated. The corridors and passages may be done in distemper colour, such as can be renewed frequently and inexpensively. This can be cleaned by a light brushing, or by stale bread. Simple lines and stencilling, arranged so as to lay out the spaces in panels, will take away from the appearance of inordinate length, and can be easily and quickly applied. Should oil-colour be preferred for the walls on account of its durable nature, there are a few points with regard to its use that should be noted. A glossy surface brings out all irregularities and imperfections very prominently, but it is more easily kept clean, and bears washing better. A flat surface is gained by avoiding the use of oil, and for delicate tints the vehicle must be colourless, but this method is hardly fit for asylum use. All work exposed to the sun should be painted with colour mixed with turpentine, and to prevent blistering should be covered up till quite hard and dry.

Japanning is that kind of paint which contains much varnish, and presents a highly glossy surface. It must be done in a room kept at a high temperature, and successive coats given after polishing with pumice stone. This is the method used by coach-builders, and has excellent effect if not too largely used, but reserved for bookcases and other such articles of furniture.

A good plan is to paint the under-part of the wall in oil and the upper part and ceiling in distemper, so that the latter can be renewed from time to time; and the former, where shoulders lean and backs rub, be kept clean by water as required. In day-rooms there should be a wooden dado, panelled if possible, of sufficient height to prevent unseemly marking and damaging of the walls. This can be stained or painted an harmonious tint with the floors, and delicate stencils in black or colours applied. In a few rooms a chair rail at a proper height will be sufficient to protect the plaster. It can be placed on the wall at a very trifling cost, and will be found quite as useful

as ornamental. Below the rail the space may be painted and varnished in some strong, warm colour, while the general wall surface may be covered with a paper of artistic and cheerful design. Much mystery is made by the "trade" in regard to paper-hanging, yet there is no work easier or more speedily learnt. A small amount of care and neatness suffices to turn out most excellent results. A few bands of harmonious colour might run round the wall just under the ceiling, which last should be tinted to correspond with the general tone of the paper, but in a lighter shade. In dormitories and single rooms it is a good plan to run a band of wood round to prevent the beds and other furniture from damaging the walls; and it is an improvement to colour the lower section of the wall a deeper tint than the upper.

I think it is better for amateurs to begin by decorating rooms in harmonious colours, than to attempt the combination of contrasts which requires the hand of a master. Much may be learnt as to this by a study of papers by Morris, Crane, and others. The subtle harmonies and contrasts used by such artists form an education in themselves.

With regard to this subject, a few points of practical importance may be indicated. Yellow has the appearance of advancing, while blue retires from the eye, and red remains stationary. Hence we should use yellow on mouldings that are convex and blue on concaves. Yellow will diminish the apparent size of a room, while blue increases it. All strong colours should be definitely separated from each other by lines. In a climate such as this, it is well to incline the colouring of walls to reds and yellows, as blue has a cold effect, and is difficult to manage. The ceiling should not be separated from the walls by dark mouldings. Lines in a horizontal direction tend to lower the seeming height of a room, while vertical lines raise it.

The general woodwork of doors, windows, etc., should be painted to harmonize with the walls, and varnished for the sake of easy cleaning.

Hangings of bright and cheerful patterns are easily obtained in cretonnes, jute, cotton, etc. There should be no elaborate arrangement of cornice and vallance to catch whatever dust may be in the air. Iron piping, with turned wood ends, painted an appropriate colour, will answer every purpose in a straightforward and cleanly way. It will be found an improvement to hang curtains across the corridors,

so as to cut their unseemly length into sections, and form cosier dwelling spaces.

Engravings, chromolithographs, and woodcuts, generally adorn the walls of an asylum. The admirable illustrated papers of the present day serve the purpose of this department of decoration in a way that can hardly be surpassed at the cost.

The artistic effect of the larger woodcuts, when properly mounted, is very considerable. A patient with an eye for colour will heighten this effect by a few simple washes of paint. It is well to hang these pictures each from two nails, so that the lines of cord may not cut the wall into objectionable shapes. Where possible a picture rod or moulding should be fastened on the wall and all pictures hung from it.

As to Furniture.—The needs of asylums vary greatly in this respect. The furniture of pauper asylums is necessarily simple and substantial, though there is no reason why it should be ugly and common-place. The tables need not have cast-iron legs, nor the forms be of such a pattern as renders sitting a gymnastic exercise. Such pieces as bookshelves may well be made of deal or pitch pine, while tables and chairs are better to be of hard and tough woods. Furniture designed to fit the recesses or wall spaces of rooms, and there built, is less costly than ordinary furniture, and may be so designed as to be more cleanly and easily kept.

When such a plan is followed, and the general arrangement of each room studied as a whole, the result cannot but be infinitely more satisfactory than the bald outcome of a contract for so many articles at so much a dozen.

Tables should be strong, and made of sound, well-seasoned wood, with plainly turned legs. These should be set well out of the way of those sitting at the table, and where very rough usage is to be expected, diagonal pieces may bind the lower parts of the legs together.

Chairs should be comfortable, of decent size, and without any contortions whatever. For old and infirm patients a deep, comfortable *easy* chair is necessary. For paralytics and epileptics I know of no better seat than the hammock chair, with the carpet sufficiently low to prevent the sitter falling forward. In the window recesses seats may be introduced, the space underneath forming a receptacle for odds-and-ends. In the sills of certain windows flower boxes may be placed, so as to give an interest and individuality to the spot.

In the great majority of day-rooms deal mantelpieces should

cover the meagre proportions of the stone facing, and be carried up with a mirror of suitable form above. Just sufficient mirror to brighten the room is a great improvement, and it is surprising how very seldom any accident occurs to the glass. Of course the fender will be low, and screens dispensed with where at all practicable. About the fireplace common glazed tiles can be introduced with excellent effect.

Beds of simple and well-designed form should be used, and like all other furniture, should be comfortable and convenient. There is no difficulty in getting furniture of good design and sound workmanship at moderate prices; indeed, ugliness often but adds to the cost.

Where practicable it is well to give individuality to single rooms, and thus to lift them out of the dead uniformity of rows of cells. A special table or commode, a bit of cretonne hanging or some little picture, is a prize to many a patient.

In entrance halls, where cold gauntness usually makes itself felt, it is of all other places necessary to improve appearances with warm colour and hospitable arrangements. Instead of stone or buff, a coat of plain Venetian red, with black stencils, and woodwork in varying browns, and ceilings of creamy white. Stone floors may be improved by incising them with lines in bold and simple patterns, and filling up the grooves with coloured cements or long narrow tiles.

The bibliography of this subject is already becoming voluminous. The works of Mr. Ruskin deal largely with these and allied questions. Mr. Owen Jones' Grammar of Ornament is most useful to the decorator, and gives full instructions as to the laws of good work; while the latest work is one to which I am much indebted—Mr. Edis' "Canton Lectures on Decoration and Furniture of Town Houses." Armed with these, wonders may be accomplished in improving the aspect and comfort of asylums.

The rapidity with which books dealing with this subject are appearing shows with what interest people are now undertaking the furnishing of their houses. That this is as it should be few will venture to doubt, and even if the primary motive be no higher than a blind following of the fashion, it may eventuate in a wide and true knowledge that will be its own satisfactory reward.

Nervous Dulness in its Physical and Moral Aspects, and Its Bearing on the Question of Capital Punishment. By Wm. Henry Kesteven, M.R.C.S.

It is only of late years, and that in a desultory manner, that what is here meant by nervous dulness has been recognised. A few words on the subject may not therefore be unacceptable, particularly as it has bearings on questions of social interest.

Nervous dulness is not, strictly speaking, a disease, though it may be caused by morbid action.

It is a condition which, in its very nature, must be inherent in the composition of the nervous elements. That such inherency may be brought about by morbid action is indisputable. It may also be brought about by disease. But the special form of nervous dulness, to which attention is here directed, is congenital, and dependent upon some vitiated process of development, rather than due to supervening morbid or other action or inaction.

It is a condition not so much dependent upon the quantity as upon the quality of the nervous tissues. Dull persons, "dull all over," as Sir James Paget once noted with regard to the writer of an examination paper, may have brains as large as those of their more able fellows. Neither is the absolute weight of their brains nor the specific gravity of the brain substance less than that of more perfect beings. We do not detect any diminution in the size of their nerve corpuscles, nor in the actual bulk of the nerves themselves. The difference therefore must be as to the quality of the nervous material.

Present methods of investigation have failed to point out in what this difference consists. But if the accepted theory, that nerve force is only another modification of motion, be correct, then, in all probability, the nervous dulness is due to what may be suggestively called a *viscosity* in the component molecules of the nervous substance, acting towards these subtler compressions (to make a gross comparison) somewhat after the manner that a column of treacle would act in contradistinction from a column of spirit.

This peculiar constitution of the nervous elements may be, and doubtless often is, due to hereditary causes. Like many other constitutional abnormalities, it is, however, capable of

some degree of cultivation. As it is possible to breed epilepsy in the tumbler pigeon, so we may breed nervous dulness in man.

As we see external deformities produced and reproduced generation after generation, by subjection of individuals to pernicious influences, so we see this nervous deformity produced and reproduced in certain races and families whose circumstances either wilfully, as from persistent indulgence in vicious habits, or from ill-assorted marriages, may be considered such as would tend to give rise to, and perpetuate this particular nervous constitution.

This fact is more particularly noticeable when the condition affects that portion of the brain which is devoted to mental action, or when the vaso-motor nervous system is the part affected. Enough is not known of the manifestation of this condition in the nerves of special sense to enable us to predicate of them in this direction what we can of the other portions of the nervous system; but the probability is that this cause is as patent in the one as in the other.

Individuals in whom this condition of nervous dulness may be met with, affecting that portion of the nervous system which is specially the instrument of the mind, need not necessarily show any glaring intellectual deficiency. A man may even pass as a clever man among his fellows and yet be the subject of nervous dulness.

In the normal brain there is no limit to the susceptibility and appreciation of impressions made thereon, either from without, through the senses, or from within by mental processes, the minutest stimuli being perceived, responded to, and reflected from corpuscle to corpuscle, until it either produces motion or expends its influence on the mind. But in the case where there is nervous dulness, it is possible for a man to be in all ordinary respects perfectly a sane man, capable of reasoning, not directly injurious either to his neighbours, or prejudicial by his actions to his own well-being, and yet to be entirely insusceptible to the finer subsidiary vibrations of the mental processes which underlie every thought or mental operation. It is quite possible for such a man to do wrong without knowing it to be wrong, and at the same time it may be almost impossible to prove this fact, as evidence from his previous actions tending towards that proof might be entirely absent. He has probably acted in the way he has because he was not conscious of

those more gentle stimuli which must bear upon him as upon all other men, and which, had he felt them, would have checked or corrected the tendency to wrong-doing. Not being conscious of any such defect, he acts in accordance with his impulses, and is unable to see that he has done wrong; but this fact being only supported by his own assertion, and not borne out by his previous mode of life, cannot be accepted from a legal point of view. It is nevertheless correct, and it is quite possible that such a man might live a long life without being placed in circumstances requiring the restraining influence of more finer mental processes. His life in this case would afford no evidence of the correctness of his statement that he did not know he was doing wrong, and he would not be believed.

The social consequences produced is most marked in those cases where the portion of the nervous structure most affected is that which is subservient to the mental operations. These are the individuals who, when possessed of this nervous dulness to a certain degree, become dangerous either to themselves or to their neighbours. They are particularly dangerous in proportion as the dulness is the less perceptible to lookers-on, in consequence of some other mental peculiarity which predominates over it, and gives the colour to their lives.

So long as the current of their lives is independent of the influence of those feelings and consequent thoughts of which they are not, and cannot be, conscious or capable, so long will they go their way without transgressing the line which social necessities have indicated as the boundary of legitimate action.

But so soon as they are placed in circumstances which demand the inhibitory action of these finer motives, their deficiency becomes apparent, and the social law is violated.

It is in these cases that the verdict of insanity is most just. Such cases also afford the most glaring examples of the inefficiency and injustice of capital punishment.

It is important that distinction should be made between those cases where the mischief is congenital and those at which we have hinted in which this nervous dulness is due to disease or to bad habits of life. Wilful indulgences and excesses are said to blunt the susceptibilities, and doubtless it is as possible for a man, by the exercise of his free-will, to choose that mode of life which will deaden his powers of ap-

preciation of the finer sensations as it is possible for him so to live as to give them free scope. It is quite possible to know the good but to pursue evil.

When a man has given evidence of his possession of powers of mental appreciation, and afterwards acts in a manner which would indicate that he has lost them, there can surely be no error in asserting that here we have a case different from those where no such previous evidence of the existence of this power is given, whether it has ever been called for or whether the circumstances have not been such as to render its manifestation necessary.

It then becomes a question as to the cause of this marvellous change which we notice. As we have seen, it may be disease, or on the other hand it may be due to wilful choosing of the wrong mode of life. In other words, some of the laws of nature, either moral, organic, or physical, have been violated, and this condition of nervous dulness is the penalty.

But the distinction between this form of nervous dulness and that which we have previously considered lies in the fact that the one is congenital, and in all cases beyond the control of its victim, whilst the other is caused by transgression of the laws of nature on the part of the individual. Whether such transgression is wilful or accidental does not concern us, but rather the fact that this nervous dulness is the penalty of such transgression. But, it will be said, this view of matters would make all crime to be insanity. Certainly, from a psychological point of view, all crime is insanity. A mind cannot be considered whole or sane which is deficient or perverted in its moral elements. And herein lies one great and weighty argument against capital punishment. The rough test, supplied by law, of a man's sanity, which merely consists in ascertaining whether a man knows his act to be right or wrong, is insufficient, and is admitted to be so. If all crime were looked at as insanity, it would be dealt with in a more rational method, not as a reason for the infliction of punishment, but with a view to its prevention, an end which punishment, whether capital or otherwise, fails to attain. Crime, like insanity, should be treated by placing the perpetrators beyond the power of its commission, but this could surely be done without resorting to deprivation of life.

Nervous dulness may affect any of the nerves of special sense,

be it common sensation, sight, taste, hearing, or smelling. Perhaps the best example of this local condition for the purposes of illustration is to be met with in the optic nerve and the special sense which it subserves. Sight is believed to consist in a certain power that resides either at the root or at the expanded retinal termination of the optic nerve. This power consists in the ability to appreciate, or to perceive as sensations, certain vibrations in the hypothetical ether.

These vibrations may either come direct from the source of all such vibrations, or they may be reflected from objects upon which they have first impinged.

The reflected vibrations are different from the direct, for the reason that all objects upon which the direct vibrations fall, and from which they are reflected, have the power of modifying them. Some portions of the vibrations are stilled and not reflected; they are said to be absorbed, whilst those that are reflected are modified and reduced in intensity or individual size.

These direct vibrations of the ether give rise to sensations in the optic nerve which make up the idea of *light.*

The reflected or modified vibrations give rise to sensations which make up the idea or the ideas of *colour.* With the normal optic nerve very minute differences in the size or intensity of these vibrations, or in other words, in the shades of colours, can be easily detected.

But this perceptive power of the optic nerve may be entirely wanting, or it may be only partially so.

This is a question of degree of *dulness* of this particular portion of the nervous system, and is a condition dependent to a certain extent upon the intensity or the weakness of the reflected vibratory stimuli. Thus there may be only inability to detect one or two colours, as in red or green blindness, or a patient may be totally colour-blind. To him there is a dull uniform tint over everything. The modified vibrations of the reflected rays are not perceived, except so far as they convey the idea of form, that is they are simply felt as rays of light, of more or less intensity. In the nervous dulness here exemplified by colour-blindness there is not necessarily any impairment in the powers of vision, either for distance or for definition. There is simply an inability to appreciate the more subtle movements of the ethereal particles on the part of this particular nerve.

Nervous dulness is also met with in persons who, in common language, have "no ear for music."

In aural nervous dulness, which is here referred to, there is not deafness properly so called, but an inability of the nervous structures to feel the minute vibrations which are caused by the more subtle differences in or among musical sounds.

Nor is this condition limited to the cerebro-spinal portion of the nervous system. It is to be met with in those portions of the nervous system which subserve nutrition, that is in the sympathetic or vaso-motor system. Evidence of such dulness is seen in those cases which show a general flabbiness of tissue, and are always more or less ailing.

The conclusion sought to be advanced from the foregoing is that capital punishment should be abolished.

The very existence of such a condition of the nervous system, be the cause what it may, demonstrates at least the fact that here must be a very potent cause of the perpetration of all crime. Can any single case be mentioned in which this cause is absolutely excluded? Can we predicate with certainty of any man that he has no such nervous dulness? Are we not therefore driven to the conclusion that when such evidence as, for example, the committal of a murder, is forthcoming, that the committee has demonstrated by that very act that he is insane? We are taking for granted that no one would wish to see lunatics put to death. This being admitted, we contend that capital punishment ought to be abolished.

We do not contend that criminals should be turned loose on society, but that in preference to putting them to death, they should be placed in such conditions as would preclude the possibility of a repetition of their crime, and so placed also that they should not be a burden upon the industrious portion of the population.

We are perfectly aware that to attain such a method would require an almost total reconstitution of the prisons and lunatic asylums, and we are not by any means convinced that such reconstitution is not the very best thing that could be desired.

Employment in the Treatment of Mental Diseases in the Upper Classes. By David Bower, M.D., Springfield House, Bedford.

It is not less true now than when Dr. Watts sang, "Satan finds some mischief still for idle hands to do," and two of the Commissioners in Lunacy, after their latest inspection of my asylum on the 18th of this month, said in their report, "Many of the gentlemen are usefully employed for some hours daily, and those whom we saw at work expressed themselves as well pleased with their occupations. We are extremely glad to find that Dr. Bower has successfully combated the difficulty of finding employment for gentlemen patients. Amusements in the shape of games are also found for both sexes."

With these two quotations for my texts, I have a subject eminently worthy of a more important exponent, but my diffidence is, so far, overcome by the strong feeling I have always had on the subject, the satisfactory experience I have had of the system, and the fact that in the 24 volumes of our Journal indexed by Dr. Blandford, I can only see one paper on the subject of "Employment in the Treatment of the Insane," and for that we are indebted, I think, to a Frenchman.

What I have to say will, I know, appear trite and commonplace to such members of the association present as are connected with those admirably conducted institutions, our pauper asylums, as what I now, with all deference and subject to correction as to fact, put forward as being a new system in asylums for the better class, is matter of every-day routine in the pauper asylums.

For the purposes of treatment, mental diseases may be divided into two great classes—the acute and the chronic—and the treatment may be classified as "medicinal" and "moral," although no sharp line of distinction can possibly be drawn in either case.

Of the medicinal treatment of insanity, I do not propose in this paper to speak directly, although roughly speaking acute mental disease requires, chiefly, medicinal treatment and that essence of it which we call "rest." Chronic insanity on the other hand (and in this I include the resultant dementia which follows frequently an acute attack, and is often a precursor of a complete cure) requires occupation

of a nature suited to the physical condition of the patient, and with due regard to the plentiful supply of fresh air, in addition to great variety of amusements.

And now to return to our two texts. *A.* What is the routine in private asylums where the "employment" system is not in operation? It is a routine, I am afraid, of regular and purposeless walks with games interspersed, any work that is done being voluntary and fitful.

Patients not being occupied have much time to brood over their delusions, to invent and magnify grievances, and I have no hesitation in saying that this idleness, this want of purpose in the daily life, retards very materially the recovery of large numbers. It leads moreover to various destructive and pernicious practices as an outlet to the pent-up energy which active or latent is existent in almost every insane as in almost every sane person. It *causes* (and I use the word "*causes*" advisedly) a patient to tear his clothes and his bedding, to break windows, ornaments, and furniture, to grub up soil and gravel in the airing courts, to masturbate, to be quarrelsome or violent, to make constant attempts to escape, and even to commit suicide. You may tell me that for the insane of the wealthier classes, well-equipped reading-rooms, a repletion of out and indoor games, entertainments, riding, driving, walking, excursions, &c., take the place of the regular occupations which paupers have, *but* I have seen that system carried out in probably as complete a manner as it is in any private asylum in the kingdom, where a large staff of educated ladies devoted their whole time to devising and joining in a continuous stream of amusements and entertainments, and *still* where I constantly felt the disadvantage of not being able to give the patients some useful physical work to do, and thus obviate the necessity of making their lives a dissipation, and unfitting them for the regular business of life on their recovery, as I have known often to be the case.

B. It gives me great pleasure to leave this aspect of the subject, and in the second place to give a short history of the introduction into my asylum *of*, and to explain what I mean *by* the "Employment System" for the upper classes, and what rules should guide us in its use. I will also mention as I go along some cases illustrative of the results obtained.

Having had ample experience of the "Amusement System" (a system far in advance of the old "restraint

system," which it is scarcely necessary even to refer to in such a meeting as this), I made up my mind, when nearly three years ago I took charge of the asylum I now have, to test practically whether the "employment system" could not be introduced amongst upper class patients with safety; to the advantage of the patient's prospects of recovery I *knew* it would be, but whether to the satisfaction of the patient and his relatives was of course doubtful, and the "wicked race" of private asylum medical officers *must* please their patients and patients' friends, otherwise our practices would be not inconsiderably diminished.

During the first year after I came south I had too much to do in the structural improvements which had to be effected to be able to give "employment" the attention and time required for its successful introduction, but in the spring of 1880 I set seriously to work, at first confining myself to finding employment in the garden for those patients who were quiet or safe enough to be put on parole, and whom I sent to work with the gardeners or in painting, carpentery, &c., but left it to themselves as to how much or how little they should do. *One* or *two* patients took an interest in the work, were busy at it, and derived great benefit therefrom; several patients did a little, and pretended to spend the four hours I prescribed in doing the work, and the remainder entirely shirked it.

The next step was to employ a "garden attendant," who was in reality an indoor attendant, with the exception of the four hours he took the gentlemen into the garden or workshops, and who, besides the rudimentary knowledge of gardening desiderated, was trained as an ordinary attendant in the management of the insane. This was a great improvement, as, by a judicious combination of encouragement, kindness, and firmness, he was able to get them to employ themselves more regularly, and to take more interest in the results of their work, than when left to their own freedom in the matter.

All this time I kept up alongside this employment system the old system of morning and afternoon walks, and only sent those patients who preferred it, although I persuaded many to adopt it by doing three or four hours' gardening each day myself, and thus showed them that it was work quite suitable to their station in life.

The results of even this modified system proved highly satisfactory, and with chronic patients I found great benefit;

they soon ceased to be destructive and dirty, because they were debarred the idleness which breeds mischief; they ate better, they slept better, they enjoyed their evening's amusements, games, and entertainments better; they became more contented and happy, because they had no time to nurse discontented feelings, and I can call to mind two chronic patients who, when I came to the asylum, were inveterate escapers, who, greatly against their will, were made to go out regularly and do their two hours' work twice a day, *and who*, from being constant complainers about *every* person and *every* thing, now praise the same, and are so far removed from the category of escapers that they are both on parole, and each has a special department which he manages, and is responsible for, and both speak highly of the benefit they derive from being allowed to employ themselves, and are a good influence in the asylum by advising new patients to try the same plan. This voluntary system afforded me great satisfaction, and at the same time no inconsiderable dissatisfaction, inasmuch as I saw the great results obtained in the cases of those curable patients who volunteered to this service, *and also* saw with sorrow the loss those patients suffered who would not thus employ themselves; and last year I determined to take the final step which is, I hold, the keynote of the system, and what is absolutely necessary to make it a success, viz., *to make it compulsory* (that is of course on those only who are physically equal to it). I stopped the regular constitutional walks, and organized a staff of garden attendants, so that I could classify the patients in their outdoor employments, and arrange work for all suitable to their idiosyncrasies and capabilities.

With the patients who had been accustomed to expect their daily walk, I found some difficulty at first, but firmness of purpose enabled me to conquer them. One instance will suffice. A clergyman who had his fourth attack of acute mania about a year ago recovered from that in a few weeks, and sank, as he had done in each previous attack, into a chronic destructive state. When first told that regular walks were to be stopped in favour of "employment," he said, "I shall not work in your infernal garden." "Very well," I said, "you must stop in the airing court." His was an extreme case, the worst I have had, and it took three weeks to bring him to, but at the end of that time he came to me on my morning round, and said, "*Can't you* find a fellow something to do in the garden?" and since then

he has gone out regularly gardening four or five hours daily, digging, hoeing, or raking, and is now so much improved thereby that he is able to dine at my own table, and spend the evening with the ladies in the drawing-room, recounting proudly each night the result of his labours, although previously he used to tear his clothes to ribbons and dress in a style of simplicity not quite in accordance with the canons of Mrs. Grundy or decency.

With new patients as they arrived I had less difficulty, as when they came they found it was the routine of the place, and in almost every case they have *willingly* conformed to it. One patient, indeed, a melancholic, who arranged everything preliminary to his admission himself, wrote the day before he came beseeching me to get him plenty of employment.

To be certain of success with this "employment system," we must be guided by certain fundamental principles :—

1st. Never to give a weak body too much physical work to do.

2nd. The "employment" must, for patients of the upper classes, be free from any possible imputation of being menial.

3rd. There must be constant variety in the employment provided, so that the patient does not get wearied of it. This principle involves a great deal of extra thought and trouble to the superintendent, but is essential to the smooth working of the system, and no medical officer to a private asylum need attempt to carry it out who is not prepared for a large accession to his present duties.

4th. Besides variety in the work, patients must be provided with an abundance of recreation and amusements which they will the more enjoy from having been working the meanwhile.—They must,

5th, have very good, nourishing food; they must have frequent association of the sexes; they must have a regular weekly or bi-weekly holiday from work, and as far as possible must be taken in their hours of leisure to join in the entertainments and amusements of the outer world.

I will now give you in a very few words a time-table of the day's proceedings in my asylum, where we have only at present, I think, 25 ladies and 17 gentlemen, all of whom belong to the educated or upper classes, and are paying fees which distinctly remove them from the pauper classes, viz.: 2, 3, and 4 guineas per week.

Time-Table.

9 a.m. Breakfasts.
9.30 to 10.30. Newspapers, letters, &c.
10.30 to 12.30. Employment.
12.30 to 1.30. Outdoor amusements and games, such as tennis.
1.30 p.m. Dinner or luncheon, as the case may be.
3 to 5 p.m. Employment.
5 to 6 p.m. Outdoor games and recreation.
6 p.m. Dinner or tea.
7 to 8.30 p.m. Organized conversation, music, &c.
8.30 p.m. Tea or supper.
9 to 10 p.m. Cards, billiards, chess, &c., &c., &c.
(To break the routine of the above time-table, the patients are taken out in turns daily for town or country carriage drives.)

In this time-table I have tried to approximate as much as possible the asylum routine to the habits of every-day life. You and I do not occupy our time during the day taking long walks, and playing billiards or tennis. *We have*, and most people *do* have work to do, and a very good thing it is for us, and what is good for us cannot but be (with certain limitations) good for our patients.

The term "employment" has often occurred in this paper, and I may fairly be asked what is this employment which you have found not derogatory for good class patients to engage in? I answer, so that it be not menial nor beyond the physical powers of our patients, I care not what it be, and I expect as the years roll on to add largely to my repertoire of work. During the past week I have had, out of 17 gentlemen patients, one laying out an apiary and rockery, two preparing seed-beds, and sowing seeds, and mowing and rolling the lawns, one cutting down timber and keeping the shrubberies in order, one attending to the feeding of the cows and pigs, one seeing to the safety of the fences round the grass fields, four digging in the garden and setting potatoes, two hoeing, raking, and rolling gravel paths, and three pumping, which leaves only two unemployed, one of whom is paralysed, and the other's advanced age disables him from doing anything.

On wet days—beyond the great resource of billiards—several of the above occupy their time in doing useful work in the carpenter's, painter's, and engineer's shops.

I say little about the ladies, as their life is not so different in an asylum to the ordinary home life as that of the gentlemen is. They have sewing, fancy work, painting, drawing, light housework, such as dusting, arranging ornaments and flowers, &c., and have the flower garden as their especial province, several having their own independent flower plots.

Now, what do the patients and their relatives think of the system? The Commissioners, at their last visit, inquired specially as to the patients' feeling on the matter, and, as is noted in the extract from their report, the patients expressed themselves as well pleased with their occupations. The patients' friends look on it at first often with suspicion, but I have lost only one patient through insisting on the system, and knowing that it is best for the patients, I mean to go on with it whether the relatives like it or not.

The variety of work may be infinitely extended for patients who can afford to pay for a special attendant.

I remember once speculating in a patient's work. He came to me a suicidal melancholic and a bankrupt, who had been missing for three days. He was admitted at the lowest rate of the asylum I was then in, viz., £150 per annum. I gave him a fire and a man in his bedroom, and by designing and drawing window hangings and Axminster carpets, he cured himself of his brain disease, and carried home with him, after paying his quarter's fees, the sum of £112 10s to his wife and family, and he periodically thanks me for having made him work when he did not wish to do it himself.

I should like, in conclusion, to ask some of our public asylum men to give me any suggestions as to means of employment, especially for the worst class of patients.* When I introduce the electric light into my asylum (and it will have many advantages in asylums) I hope to make the violent male patients, by turning handles, and the ladies by a swing arrangement in their airing courts, provide and store the force which will light their respective rooms in the evening. But that time is not just yet.

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* Since writing the above my attention has been called to the "School System" so successfully used as a form of employment in the Richmond Asylum, Dublin, and which is certainly deserving of special recognition.

On the Effect of Prosperity and Adversity in the Causation of Insanity. By T. A. Chapman, M.D., Medical Superintendent of the Hereford Asylum.

The subject of the causation of insanity has recently attracted considerable attention; and with the abundant material which the Commissioners in Lunacy are annually accumulating, we may expect by-and-bye to learn something more of this large and complicated subject.

In this note I only propose to touch on one phase of the matter, and that in only one aspect. When, some years ago, Dr. Yellowlees propounded the hypothesis that adversity is favourable to mental stability and prosperity the reverse, the immediate facts under his cognizance certainly appeared to point in that direction, but I believe it is now admitted that they owed that aspect to some accidental and exceptional circumstances,* and that similar series of events that have since occurred have not produced the same results.

I think the facts on which this paper is founded, go to show, if they do not prove, that prosperity is a prophylactic of insanity; if not always and generally, at least in that section of the people who are always within a measurable and very narrow distance of pauperism and starvation, and with whom the least additional prosperity brings increased well-being in some important respect; taken broadly, this is not an exaggerated description of the worldly position occupied by a large proportion of agricultural labourers. In this county, for instance, 12s. a week and two quarts of cider a day is at present the usual wages of an ordinary labourer,† and when, for example, the wife of such an one, with a family of four to eight children, becomes insane after nursing the youngest for 12 or 18 months, it is not wholly accurate to ascribe the disorder to prolonged lactation, a large share in the causation must attach to the penurious circumstances under which the prolonged strain on the vital resources is borne, and a slight alleviation of which might have averted the catastrophe.

In my Annual Report for 1879, I made some remarks on the circumstance that during the latter half of that year

* We should like to know from Dr. Yellowlees whether his subsequent experience has or has not confirmed his original statement.—[Eds.]

† As statements of this sort often give rise to controversy it may be well to note that skilled labourers, such as waggoners, &c., get often several shillings more, and that an additional pound or two is usually to be got at harvest time.

there was a marked increase in the number of recent and curable cases admitted into the Hereford Asylum, an equally marked but gradual diminution of their numbers having been going on during the few previous years; and I advanced some reasons for suspecting that the explanation of the fact was to be found in the circumstance that from about the years 1873 and 1874 the wages of agricultural labourers had been largely advanced from their previous low point, and that in 1879 (and to some extent in 1878) they had again fallen to their old figure; and that the well-being of the agricultural labourer, and consequently his freedom from insanity as from other ailments, was roughly proportional to the amount of his wages; and I pointed out that the circumstance would result in a larger number of recoveries during 1880 than had latterly obtained.

It occurred to me that if there was anything in the hypothesis so advanced, it would hold good in other agricultural districts as well as in Herefordshire, and that the matter might be tested by ascertaining whether the prediction founded upon it, viz., that agricultural districts would show a marked increase in the number of recoveries in 1880 as compared with the previous years, was fulfilled.

With a view to apply this test, I selected the reports of the asylums of all the counties that I believed to be purely or mainly agricultural, except one or two whose statistics were imperfect or did not extend far enough back. The asylums so selected were—Cambridge, Hants, Lincoln, Denbigh, Salop, Berks, Somerset, Dorset, Wilts, Beds, Sussex, Beverley, Leicester, Suffolk, Chester, Bucks, Hereford, Norfolk and Oxford. From these reports I tabulated the recoveries of each year, from 1870 to 1879, for a few of the earlier years in a few instances, where the statistics were deficient, I put in an average figure so as to make the totals comparable, no such estimated figures occur in or after 1873, I had then perforce to wait the appearance of the figures for 1880.

Before going further I ought perhaps to give my reasons for taking the recoveries instead of the admissions.

What I want to obtain is the actual production of insanity in each year, or some measure of it. Or, more strictly, the insanity not produced in the year, but that due to causes acting during the year. Many causes influence the sending of patients to an asylum, that is the number of patients admitted during the year, apart from the actual production of insanity; such causes, for example, as the proximity to the asylum, the amount of Government grants, willingness

or the reverse of relatives to undertake the care at home, &c. These, I fear, I cannot eliminate. But when we come to take the question of the production of insanity as influencing the numbers sent to asylums, it is obvious that the patients sent in any one year have been produced by causes acting at very various periods of time. An idiot, perchance, may trace his condition to causes acting on his parents or ancestors 50 or a 100 years before the date of his being sent to the asylum. On the other hand, the acute cases, though they may present many predisposing and even some exciting causes, dating back many years, will probably include all the cases that have already occurred, due to recently acting causes (usually as exciting). In two consecutive years, the chronic cases admitted will owe their production to causes not operating in those years; any difference in the causes operating during these two years, if found to have had any effect on the admissions, will be found to have produced that effect among the recent and acute cases. If intemperance does not act during 1885 and acts strongly in 1886, we shall find among the admissions of both years, cases of chronic alcoholism due to the intemperance of previous years, but delirium tremens and mania-a-potû will occur only in 1886.

A difference, therefore, in the acute cases of two years may be taken as measuring the difference in the causes acting during those two years. But we have no satisfactory record of the acute cases, the best is that given in Table VII. of the Association Tables. But there is another test of their number, and that is the number of recoveries, the more acute cases the larger the number of recoveries. And I have adopted this measure both because it is justified in this way, and also because it was in this form that the matter first suggested itself to me. And it has this further convenience that the recoveries of one year are partly due to the admissions of the previous year, partly due to its own earlier months. Hence the recoveries of 1880 may be taken as varying with the causes operating during 1879. A cause operating during 1879 may produce effects at any date thereafter, but if it acts as an exciting cause of an acute case, that case will probably occur late in 1879 or early in 1880, and appear as a recovery (if recovery take place) among the recoveries of the latter year.

Now the actual recoveries of the 19 asylums selected as belonging to agricultural districts during the 11 years under review were as under :—

The total number of recoveries

in	1870,	1871,	1872,	1873,	1874,	1875,	1876,	1877,	1878,	1879,	1880.
were	968	986	959	885	911	863	941	859	853	829	943
In all County Asylums	3123	3308	3389	3201	3674	3759	4058	3855	4247	4293	4336

I have placed under them the figures representing the recoveries in all county asylums, which will make it more plain in what respect the fluctuations in the number of agricultural recoveries differs from the fluctuation of those of the whole of England.

The agricultural figures show a fall in 1873, a rise in 1874, and a greater rise in 1876, but it at once appears that these are not special features of the agricultural figures, but are shared by the total statistics, and must be due to causes of more general operation.

But the special difference is found in that somewhere about the year 1873, a decline in the number of agricultural recoveries begins, and, neglecting the fluctuations affecting the general figures also, they steadily decline from 959 in 1872 to 829 in 1879, rising suddenly in 1880 to 943, a higher figure than belongs to any other year after 1872. The general figures on the other hand show throughout this period (apart from special fluctuation) a steady rise throughout the period from 3389 in 1872 to 4336 in 1880.

This steady rise in the general recoveries is due no doubt largely to the increased number of patients sent to asylums, partly from increase of population, partly from increased readiness to send them, so that a larger number of slighter (and more curable) as well as of others have been sent. But I should not be transgressing against the spirit of this paper if I suggested that the trade depression and otherwise hard times we have passed through, were really to an appreciable extent increasing the production of insanity, therefore in the first place of recent and acute insanity and therefore of recoveries.

Some one will say we have heard of trade depression, but have we not heard very much more of agricultural depression, and is not the decline in the agricultural recoveries, if it has anything to do with this matter at all, due to this depression and to the more hopeless state of patients from agricultural districts? But such an one cannot have followed the effect which matters agricultural and manufacturing have produced on the wages of the agricultural labourer. When the manufacturing and other industries of the country

were, in 1872 and 1873, in a whirl of prosperity that was never to cease, an effect was first produced in agricultural districts of drawing away to manufacturing industry much of its labour, and this diminution of its more speculative population may be an element in the sudden fall in the number of the recoveries of 1873. But it was not till the trade prosperity was almost at its close, that a rise took place in the wages of agricultural labour, which probably reached its highest point about 1875 or 1876. And in spite of agricultural depression this rise held its ground more or less firmly for several years, and the increased cost of labour to the farmer was well recognized as one of the elements intensifying the difficulties in which he was placed. Whilst this improvement lasted the agricultural labourer and his family were no doubt improving in health and stamina, and we see the figures show a decline during this period in the production of acute insanity. There can be little doubt that with good seasons this improvement would have continued. But in 1878 and 1879 affairs culminated in such a manner that the improved wages could no longer be paid, and they are now, so far as I can learn, in very much the same position as eight or ten years ago; and, as an immediate effect, the causes of insanity are seen to operate with their old intensity in 1879, as evidenced by the recoveries of 1880, approaching their old point.

If prosperity and adversity act on the production of insanity in the manner I have endeavoured to show, they must also operate in a very similar way on the death-rate; and even more generally we might expect the recoveries to exhibit a certain parallelism with the death-rate. If there have been more recoveries in 1880 owing to a worse state of health in 1879, so there should have been a higher death-rate in 1879.

Now, if I tabulate the agricultural recoveries against the death-rate of the previous years in Herefordshire, I get a table as follows:—

	1874,	1875,	1876,	1877,	1878,	1879.
Death Rate.	20·6	18·3	17·7	15·9	15·0	18·9
Recoveries of following year.	863	941	859	853	829	943
Death Rate. England.	22·3	22·8	21·0	20·4	21·7	21·0
Death Rate Small Towns & country parishes.	19·5	20·7	18·6	18·2	19·0	19·1

The parallelism between the death rate of Herefordshire (for which I am indebted to Dr. Sandford, the medical officer of health), and the agricultural recoveries is very striking.

There is, moreover, no correspondence between these figures and the general death-rate of England; the only exception is one that curiously proves the rule. The death-rate of 1875 is high, and accompanies a high recovery-rate of the following year; this high recovery-rate, we have already seen, however, was not an agricultural phenomenon, but affected the whole recoveries of the country, which were very numerous and coincided with the highest death-rate (but one, by 0·1 per cent.)of the last ten years.

I think this fact alone is sufficient to give great probability to the more general expression of the hypothesis I am advancing, viz., that insanity is largely under the control of the same general agencies that affect the public health in other respects. The special case of this hypothesis under discussion being that prosperity (in a pecuniary sense) is a marked agency of this kind among agricultural labourers.

I have not got a general agricultural death rate. The death rate of "small towns and country parishes" is the nearest approach to it. It does show a slight tendency to fluctuate from the death rate of all England in the direction of the Herefordshire death rate and of the agricultural recoveries, but contains, no doubt, enough manufacturing and mining elements to prevent any further approach.

I ought to add that these recoveries are not due in any way to variations in the number of the admissions. The decline in the recoveries goes on with an increase in the admissions, and the admissions of 1878 and 1879 (giving recoveries for 1879 and 1880) are curiously enough so near as 2,581 and 2,584 in the agricultural asylums, although there is so marked a difference in the corresponding recoveries, and the admissions of 1880 are fewer in excess of 1879 than its recoveries are, and would, of course, afford but few additional recoveries during the currency of that year, say 15 recoveries where 110 have to be accounted for.

An exact parallelism between the fluctuation in the recoveries in all asylums and the death-rate of all England cannot be traced, the connection only appearing where they are greater than usual; this is not, however, at all surprising, since the fluctuations in the death-rate are not large, whilst the conditions affecting asylum admissions (and recoveries)

are so numerous and variable that any one element, such as that we are considering, cannot show itself unless it be very pronounced. The high death rate of 1875 and the large number of recoveries in 1876, is the only unequivocal instance occurring during the period under review.

The Prognosis in Insanity. By D. G. Thomson, M.D.

The subject of the Prognosis in Insanity is a most interesting and important one. The prognosis—prospect of recovery or the reverse in any disease—is the one point around which the hopes and fears of our patients and their friends centre, but perhaps this is more true of insanity than any other ill that flesh is heir to; the interests, as a rule, are great and far-reaching. This is at once apparent when we consider that besides the ordinary domestic relationships at stake such as obtain in all other diseases, the liberty of the subject, administration of the patient's affairs and property by legal inquisition while he is yet alive, and the great question of responsibility, social or criminal, add grave importance to the question at issue.

Now where are we to find the materials to assist in forming opinions and laying down rules for the Prognosis in Insanity? Firstly and chiefly, in the records of experience gained by observation and comparison of symptoms in individual cases or groups of cases throughout their course to their termination; secondly, by statistics. These, although useful to the economist and to the profession generally, are not of much avail when the physician is brought face to face with a case, and are, as will be shown hereafter, unless examined and analysed from every point of view, highly fallacious. Besides, when we have to pronounce upon any individual case, it does not assist us much to know that 38·0068 of such cases recover, or even supposing a recovery rate to be 95 per cent., yet this brings us but little nearer the point, which rather is how are we to know if our case belongs to the doomed five which remain chronic and die, or to the ninety-five which will recover.

I believe it advisable in considering this subject to divide the forms of mental disease for our present purpose into two great classes: 1st, those mental diseases depending on mere functional disturbance; and 2ndly, those forms of insanity

depending on organic disease of the nervous system. I claim no special merit for such a division, which is based on a doubtful hypothesis, for is it not questionable if any disease be really due to functional causes alone without some organic mischief being also present? In connection with this subject, it may be mentioned that Dr. Moxon, in a recent lecture on "The Influence of the Circulation on the Nervous System," raises suggestive and honest doubts as to the existence of what we should regard as so purely functional a disease as congestion of the brain, which he appears to maintain is rather due to some unknown morbid organic changes in the nerve-cells themselves. Yet it is convenient and well adapted to the present state of knowledge. A classification is always an unsatisfactory matter, and here as elsewhere we have exceptions and anomalies at the outset of the one I have adopted, for do not similar forms of insanity depend in one case on altered circulation, defect or excess of nervous power or energy, or in other manner which we are accustomed to regard as purely functional, and in another case the same symptoms may be due to appreciable physical or organic changes going on in the nerve elements? Again, is it not equally true that there is no definite boundary between the functional and the organic? Do not functional changes soon merge into and give rise to organic changes?

It appears to me that this division, arbitrary as it may be, is peculiarly suited to the consideration of the prognosis in mental disease, because here purely abstract or moral, and we may assume functional causes induce diseases of the mind to a far greater extent than they may be said to do diseases of other organs, and thus is established, in our consideration of the question at issue, a relationship between the cause and prognosis of the disease.

Before, however, entering on the special forms of insanity, let us first glance at some general conditions or states which modify or influence the prognosis in mental disease generally. These are the following, and will be referred to briefly in order:—

1. External circumstances and surroundings; 2. Heredity; 3. Sex; 4. Age and certain periods of life, such as puberty and the menopause; 5. Previous history, with type of mind; 6. Causation of the attack; 7. Duration and number of attacks; 8. Co-existing bodily states and diseases, such as pregnancy and the puerperal state, paralysis, epilepsy, apoplexy, etc.

External circumstances.—The chief item under this heading which at once suggests itself is the influence of treatment on the proportion of recoveries, that is to say, in cases which are not treated at all or cases which are, and of these latter the different results of early and late treatment. As regards the proportion of recoveries, this has been discussed by abler pens than mine, notably by Dr. Thurnam in his treatise on the influence of treatment on the statistics of insanity; also by Dr. Blandford in his book, "Insanity and its Treatment," pages 97 and 375. Therefore I need not dwell longer on this point than to state their opinion that, generally speaking, the recovery chances are much greater when the case is actively treated and combated, and under the head of "Duration" it will be shown how important that if there is to be good result from treatment it must be prompt and early.

As regards the surroundings, the general concensus of opinion is that the chance of recovery is much greater if the patient be entirely removed from the causes and associations of the onset of the attack and placed in a good asylum, where discipline, enforced open-air exercise, and above all novelty from change of scene and faces, stimulate lethargy or calm excitement, or at all events lessen the gradient in the down-hill course of incurable dementia or general paralysis by skilled nursing and hygiene.

Influence of Heredity.—It is a commonly conceived opinion that the prognosis in any given case is rendered much more grave where there is strong hereditary taint than where no such taint exists. This, *primâ facie*, appears a mere truism, and yet, when we look below the surface of the question, it is a doubtful matter whether hereditary predisposition renders grave the prognosis of the case in question.

Blandford (page 139) states that in his experience that "those affected by hereditary insanity recover at any rate in the first attack quite as often as others; being unstable by nature and constitution, they are easily thrown off their balance by something trifling and removable, or there may be no assignable cause, so by dint of seclusion and quiet they regain their former equilibrium, probably again to break down at some future time. Such people, as may be readily conceived, recover more surely than those who have *acquired* insanity by years of alcoholism, syphilis, or sexual excess."

There is unquestionably a tendency to subsequent recurrence of the malady, but this obtains in all who have been

insane, whatever may have been their condition as to heredity.

In my own experience I have seen cases with the strongest hereditary tendency recover. One case out of many I may cite. F. C., a lady aged 40, was admitted into the Camberwell House Asylum suffering from acute mania. Her mother and maternal grandmother were insane, and the former died in Camberwell House.

F. C., on admission here, was extremely violent, noisy, dirty, and destructive; added to this a wretched constitution, suffering as she was from partial paraplegia and chronic bronchitis. Yet after four months she gradually improved, became tidy, tranquil, and industrious, and is now apparently quite well.

Such an opinion is difficult to prove by statistics, the true family history being in many cases not obtainable, and so we must be content with the opinions formed from the observation of some well-marked cases which, as far as my reading and experience go, tend to the belief that hereditary defect most certainly strongly predisposes to insanity, but that when the insanity has supervened, the particular case on that ground at any rate is not one whit more unfavourable as regards prospect of recovery than a similar case where no hereditary taint exists.

Influence of Sex.—Sex does not materially influence the prognosis from a general point of view. At first, when we regard the total number of cases in, say, any county asylum, we invariably find the number of female inmates to exceed the male, and might infer therefrom that either insanity in the female has a greater tendency to remain chronic, or that more females than males go insane. As regards the latter, there is some doubt. Dr. Jarvis maintains that, on examination of a large number of statistics, that males are somewhat more liable than females to insanity. On the other hand, in Bucknill and Tuke's "Psychological Medicine," the opinion is set down that "it is clearly proved that in general fewer men than women become insane, even admitting the greater number of the female population at the ages most liable to insanity," so that this alone would not account for the great preponderance of females over males in asylums generally. And thus, if this were the only factor in the case, we should have to believe that the general prognosis of insanity in women is worse than in men. But then the question of mortality presents itself here, for the

finding of more females than males in asylums might be due to a higher mortality in the male cases, and this is probably the solution of this matter, for it is every-day experience that men suffer from the more fatal forms of insanity, such as insanity with general paralysis, acute mania, acute maniacal delirium, and from syphilitic diseases of the brain, while women suffer more from chronic mental alienation, such as subacute mania, insanity with epilepsy, or with other neuroses, some of which are attributable to states of the organs of generation.

This is not a paper on the liability of the two sexes to insanity; therefore more need not be said as to the influence of sex on the prognosis in general, but may be more conveniently referred to under special forms of insanity.

Age and Periods of Life.—Insanity in the very young cannot be regarded hopefully, whether it manifests itself as congenital defect or associated with epilepsy, chorea, or other neuroses, and in estimating the prognosis and probable course of insanity in the very young, Bucknill and Tuke (*op. cit.*) point out that we must not lose sight of that congenital defect of the brain, apart from hereditary insanity, which, as the mind develops, betrays itself, and is known by the term Insane Diathesis. This, whether hereditary or not, must be regarded as the *fons et origo mali*, and is no more mysterious than the tendency in one person to gout and in another to consumption, as it cannot be expected that this predisposing susceptibility will be removed by any acute outbreak. A well-marked insane diathesis must make much more serious the prognosis and the probability of relapse in such cases.

The statistics of Bethlem Hospital go to show that three-fifths of those admitted under 25 years of age recover, between 30 and 60 about one-half, and above this age from a sixth to an eighth recover. These statistics, however, do not aid us much in the prognosis of an individual case, for they only prove what is already well known, that the most acute and curable forms of insanity occur in early adult life, added to which is the fact that Bethlem Hospital rejects the admission of insanity with epilepsy and general paralysis. In this connection Blandford states that according to the time of life, variations in the nature of the insanity are observable; that in childhood the mental symptoms are not those of the fully developed mind, as delusions, etc., but perverted sensations, hatred of relatives, wanton cruelty, destructiveness, and hallucinations of the senses. After puberty we may find

more of the ordinary insanity of adult life, this generally attended by violence and maniacal excitement rather than by depression; then between the ages of twenty and forty we meet with more acute forms of mania and delirium. Later on, in the time of waning strength and declining vigour bodily and mental, we find melancholia prevails, but exceptions to this are not wanting; we may find melancholia in early youth and manhood, or acute mania after the climacteric periods, and when we do the prognosis is generally bad, in the latter case especially. I have found melancholia in the young far more difficult to remove than mania.

Melancholia in young mothers after parturition is often extremely obstinate, and yields to remedies with difficulty.

Insanity supervening at puberty during the first changes which take place, and cause such disturbance in the constitution of some individuals, notably females, is very hopeful, unless masturbation or other vicious habit be contracted at the same time. At the menopause we must not forget the frequent resort of some women, notably childless ones, to habits of intemperance, the insanity resulting from which is always recovered from, but the craving and desire for drink remaining. Here as elsewhere accurate diagnosis is essential to correct prognosis, as the symptoms of such alcoholic insanity are similar to varieties of paralytic insanity.

When senility is arrived at the gravity of prognosis is much increased. The recuperative powers of body and mind are feeble, and the insanity, it scarcely matters of what variety, is rarely recovered from; either it becomes worse or merges into hopeless dementia. More on this subject will be afterwards referred to, and exceptions given.

Previous History.—Of course, in forming the prognosis of a case, the previous history would not escape our earnest attention, and this, coupled with an account of the patient's type of mind and degree of education, from an intelligent relative, would be, perhaps, the surest ground of any on which to base our calculation for the future. I do not think it necessary to state here that with a history of long refusal of food, progressive loss of weight, together with a steady downward progress of the various symptoms, without a lucid interval, or display of any power of the patient's animal nature to combat the onset and progress of the disease, we should be led, after a diagnosis of grave melancholia, to form a most unfavourable prognosis, or in a history of the insidious perversion of the moral character, theft, larceny,

extravagance, and debauchery, leading together with certain well-known physical symptoms to a diagnosis of general paralysis, that such histories would at once determine our prognosis. I will rather speak of the type of mind as an important factor in forming judgment as to the probability of recovery or otherwise of the patient.

Esquirol relates that one of his patients said to him, "I know what I ought to do, and would do it, but give me the power, the ability which is wanting, and I will do it, and you will have cured me." Now, in considering such a remark as this, we are led to ask ourselves, Is it not likely that if our patient's previous history tell us that he is a person of great resolution and determination, that the prognosis in his case will be more promising than in a person afflicted, it may be, with the very same disease, but whose mind was originally of an unsettled, vacillating type, the extreme of which is typified in the person of a ne'er-do-weel? Unfortunately it is not at the moment when the rousing of the will and exercise of it is required that the resolution to "make the effort" is forthcoming. The child must have been trained to self-control and discipline, the brain must have been made flexible, and habitually obedient to the dictates of the rational will, ere it can be depended upon as able to resist the waxing or waning of delusions of the senses and other manifestations of mental disturbance occurring more particularly in partial, intellectual insanity, delusional and emotional.

I am firmly of opinion that a great deal of insanity is due, or I should rather say its continuance after it has occurred is due, to a disordered state of the inhibitory, controlling, or restraining power of the will on intellectual or volitional acts, and there are many cases on record showing that in the old days of whip and punishment, or even later in the days of heroic "treatment," by actual cautery, shower-baths, etc., except in cases where the structural disease is so extensive as to deprive the patient of all power connecting cause and effect, it, viz., the rousing and stimulation of the will, has been sufficient to curb violence, tranquillize the patient, or even render him rational. M. Foville quotes a case in point, in the article on "Alienation Mentale," in the "Dictionnaire de Médecine et Chirurgie Pratiques:—

"I have seen the preparations for this application (actual cautery to the neck) cause extreme terror to a young maniac who until then had not shown a moment's consciousness of her surroundings; when she felt herself touched by the red-

hot iron she made such efforts to escape that she eluded the grasp of her attendants; for five minutes she enjoyed all her reason, asked what they wanted with her, and implored them to spare her. M. Esquirol told her that he would defer the actual cautery if she would set to work and employ herself. She promised, and kept her word. She was soon transferred to the convalescent ward, where her recovery became complete. She avowed when recovered that the red-hot iron and the terror at the sight of it had done more than anything else to render her rational and give her back her reason."

The author adds that the actual cautery had no effect where the pain was not felt, so that it is evident that in the cases where it succeeded the success was owing to the stimulation it gave to the will of the patient, which till then had been too dormant to exert its full power over the lower faculties of the mind.

Thus, then, may we not look with more hope on cases where the history informs us that our patient is possessed of considerable strength of mind, power of will, force of character, or by whatever name it may be called, however dormant that will may seem to be? Esquirol believed, and probably with reason, that two-thirds of the cases are due to moral causes, and therefore in the prognosis we must ever keep in mind that moral treatment may bear good fruit, especially in those cases where we have a well-educated, methodical mind to deal with, and a history of a strong, determined will which may only be in abeyance and only requires rousing to "quit itself like a man," and sweep all the delusions and perverted emotions from the mind. Indeed, the cases recorded, especially by the older writers, in which a strongly excited will has vanquished the insane illusions which probably affect lower cerebral areas than the will, are so numerous as to leave no doubt that where no organic lesion exists the cure is at least possible, and its probability only limited by the original mental calibre of the patient.

Ætiology.—The influence of the cause of the alienation on the chance of recovery is of course great, but to avoid repetition, and as the exciting causes of insanity are identified with the varieties of mental disease, this question will be best considered under each particular form of insanity; sufficient to say that speaking generally, the prognosis is less grave where the causes are what are at present known as moral causes, than where we have unmistakable evidence of physical causes, such as long-continued alcoholism or

epilepsy, or affections of the head and spine, or sexual vice, or syphilis; I am not forgetting that even moral causes, such as intense study, religious excitement, domestic trouble, etc., may produce actual physical changes in the encephalon with which we may be but slightly, if at all acquainted.

Duration.—The question of duration is held to be of cardinal importance in prognosis; its importance is fully recognised by the Medico-psychological Association in the table they recommend to asylum officers for use in tabulating recovery and death rates; dividing cases into four classes.

1st class, first attack of not more than three months' duration.

2nd class, second attack of above three months' duration, but within twelve months.

3rd class, not first attack, and within twelve months' duration.

4th class, first attack or not exceeding twelve months.

It is with the first two classes that I have now to deal. If we look at any asylum report, we will see that by far the largest recovery rate is to be found in the first of the above classes, viz., where it is the first attack, and that attack of less than three months' standing. Of 633 patients of the first class admitted during the last ten years into the Derby County Asylum, 345, or considerably over one-half, recovered. The percentage recovery rate of recent cases at the York Retreat is considerably higher than this, viz., 72 per cent. of the admissions. However, mere statistics are misleading, and it would appear that lunacy statistics are particularly so. In an able paper on the curability of insanity, Dr. Pliny Earle draws earnest attention to the fallacies beneath recovery rate tables, prominent among which is the non-distinction between *persons* and *cases*. "A person," he goes on to say, "may be admitted more than once into a hospital, and hence make as many cases as the number of his admissions. As a case, he may recover several times, and his history furnishes to statistics of insanity several recoveries of a case, but not one permanent recovery of a person. Thus at the State Hospital, Northampton, Massachusetts, U.S.A., a man was discharged 'recovered,' seven times and improved once in the course of nine years, and subsequently committed suicide at home. Another man has been discharged recovered six times on the same number of admissions in fifteen years. One woman was discharged recovered eight times on eight admissions in eleven years. Another admitted six times

in the course of nine years, discharged recovered every time. Another admitted six times within a period of eight years was likewise discharged recovered every time. These five persons have as cases recovered 33 times, yet it is not probable that in one of them a *person* recovered permanently." Dr. Worthing, superintendent of the Friends' Asylum, Pennsylvania, states "that 87 persons have contributed 274 recoveries to the statistics, an average of more than three to each person. One patient recovered 15 times, another 13, and a third 9, a fourth 8, and a fifth 7. Thus statistics are indebted to these 5 persons for 52 recoveries, or an average of 10 to each person," so as Dr. Earle shows that while the uninformed reader believes that 52 persons recover, the truth of the matter is, that no less than three of the 5 *persons*, not 52 *cases*, died insane in the asylum, so that the cures, if any, could not have exceeded two. This point has also been strongly insisted on in this country by Dr. Hack Tuke.* Another fallacy underlying these tables is this. Different forms of insanity exert an influence as to the early or late sending of the patient to an asylum. For example, the most curable form of insanity, acute mania, demands the removal of the patient to an asylum at a very early stage of the disease, whereas in more incurable forms of insanity, general paralysis, dementia, etc., the early stages are so insidious and obscure, that the malady is often far advanced before admission to an asylum is sought for. Indeed, in the former variety, the patient if he be a pauper, has generally to drag out many months' imprisonment until the disease which is at the bottom of the strange conduct, immorality or criminality, becomes so apparent, that even a prison surgeon recognises the case as one of insanity. I mean no reflections on prison surgeons, but several notable blunders of this kind came under my notice in Derbyshire and make me insert the word "*even.*"

The same applies to dementia; it is only in the later stages of primary and organic dementia, when the patient becomes dirty and troublesome, that he is sent to an asylum.

I believe myself in the great power that habit exerts over our modes of thought and action, and Bastian in his recent work, the "Brain as an Organ of Mind," gives in different parts of the book a very clear account of what are the probable pathways of various afferent and efferent and commissural sensory and volitional nerve impressions and acts, and

* *Vide* Paper in JOURNAL OF MENTAL SCIENCE, for Oct., 1880.

how these intermingle and anastomose, and that the more definite and the more frequently traversed the nerve paths are, the easier will it be for stimuli and impressions to flow along such channels when next occasion arises, and thus we can well imagine that when the mind once gets into the habit of thinking in a perverted manner, probably through different routes or channels, from what it does in health, perhaps omitting to pass through the pathways in the higher and more intellectual and reasoning areas of the brain, that the longer this goes on, the more indelible will the habit become, so that I may sum up the effect of duration of the malady on the prognosis by quoting Blandford, page 97; "If there is one fact ascertained beyond all others in the prognosis of insanity, it is that the disorder, if recoverable from, should be treated early. If it exists for a length of time (under treatment or not), the chances of recovery are small, the reason being that the undue production of textural changes, brought about by stimulation and hyperæmia of months and years, over-activity of the brain centres, implies a removal of textural elements of a lower type, an overgrowth of less complex, and less highly organized material."

In one form of insanity, and in one alone, so far as I am aware, recovery may take place after years of aberration, this form being melancholia. Here the pathological condition is frequently one where hyperæmia, if it existed at all, has existed only a short time. There has been a checking of the functions of the parts rather than a stimulation, with undue metamorphosis; and when the functional activity is again raised to its normal level, the patient is sane as before.

The influence of *co-existing bodily states*, such as pregnancy and the puerperal state, and of diseases, such as Bronchocele, chorea, epilepsy, and syphilis, will be best considered under the special headings of the separate forms of mental disease with which they are usually associated. In considering the prognosis in special forms of insanity, I shall discuss them in the order given in the following table, which table I have constructed solely for this purpose, and not in any way as an attempt at a new system of classification of insanity; it is based on the one given in the class of Mental Diseases at the Edinburgh University by Dr. Clouston:

I. Insanity dependent on what, in our present state of knowledge, is called *Functional Disorder*.

(*a*) Mental Depression—Melancholia.

(*b*) Mental exaltation—Mania.
(*c*) Alternations of the above—Recurrent Insanity.
(*d*) Delusional Insanity—Delusions, Hallucinations, and Illusions.
(*e*) Mental Enfeeblement—Primary and Secondary Dementia.
(*f*) Insufficiency of Inhibitory Power—Impulsive states.
(*g*) Insanity *accompanying* normal or pathological states of the generative system—Pubescent, Gestational, Puerperal, Lactational, Hysterical (Ovarian), and Uterine Insanity.

II. Insanity dependent on physical *Organic Disease* of the nervous system.
(*a*) General Paralysis.
(*b*) Organic Dementia.
(*c*) Syphilitic Insanity.
(*d*) Toxic Insanity (Alcohol, Opium, Lead, etc.)
(*e*) Epileptic Insanity.
(*f*) Rheumatic, Choreic, and Gouty Insanity.
(*g*) Adolescent, Climacteric, and Senile Insanity.
(*h*) Phthisical Insanity.
(*i*) Insanity arising from organic defect of the brain, infantile or congenital (Idiocy, Cretinism, etc.).

(*a*) Mental depression.

By mental depression, I mean that state of mind known as melancholia, looking at it as a disease *per se*, and not as the transitory condition which often obtains in the development of mania or other forms of insanity, for according to Guislain there is in the genesis of all, or nearly all, cases of mental alienation a period—it may be extremely short, but still it exists—of mental depression.

Melancholia is said to be the most frequent and the most hopeful of all forms of insanity, and the consideration of statistics and personal observation fully confirm this opinion. In melancholia we have reason to believe that there is no real lesion or organic change present. Its pathology is described as a diminution in the quantity or quality of the blood supply to the brain, inducing defective nutrition, exhaustion, or poisoning of the brain cells. Looking at the matter broadly then, one can well imagine that, provided this malnutrition can be rectified, a good result may be expected. The prognosis depends certainly, as already mentioned, on the general conditions, such as age, history, cause, etc., but to a much greater extent on the symptoms of the

particular case in question. Now, are there any definite signs which will lead us to form a fairly accurate opinion in a given case as to its prognosis?

The age, in the first place, is an important guide, although I have met with well-marked exceptions. Melancholia in the aged is unfavourable, because in the later periods of life the improvement of the nutrition, exercise and employment of body and mind, on which we mainly rely for treatment, are not easily obtained, seeing that degenerative changes preponderate over regenerative changes in the decline of life, and the concomitant age and infirmity so often preclude plenty of vigorous bodily exercise. Yet I have notes of two cases in which both of the patients (females) were above seventy-five years of age. They were admitted into the Derby County Asylum in 1879 suffering from simple melancholia with suicidal tendencies (first attack), great depression, aversion to, but not determined refusal of food, and sleeplessness; both cases recovered in less than two months, although an unfavourable prognosis was entertained by the medical officers on admission. These patients, however, for their years, had very healthy viscera, there being no tendency to lung diseases, from which melancholics often sink. One, it may be mentioned, showed by the "arcus senilis" and inclastic pulse that her vessels were atheromatous, probably the cause of the ill-nourished brain. Blandford, in his work on insanity, page 214, states that in his experience almost every case of melancholia, if it does not run on to panic-stricken frenzy, with desperate determinations to resist food and total loss of sleep, progresses to a favourable termination in a longer or shorter time, whether in or out of an asylum. He also states that the influence of the duration of the disease has less bearing on the prognosis in melancholia than in any other form of insanity. He quotes three cases to this effect: one a gentleman who recovered after five years of profound melancholy, and two ladies who recovered one after nine and the other after thirteen years. Such cases are extremely rare, for the tendency in cases of melancholia of long standing is to pass into imbecility or secondary dementia, or occasionally to merge into a maniacal state which may alternate with the depressed condition and continue chronic. A sign of approaching changes for the worse of this kind is the improvement of the bodily health, nutrition, etc., without mental improvement.

Dr. Conolly states that in his experience great numbers of

melancholiacs became demented, but this I believe to be due to an error in the diagnosis, or rather nomenclature, seeing that formerly alienations, which we now recognise as different forms of dementia, were then included under melancholia.

Dr. Hack Tuke states that of 48 patients dying in the York Retreat, who had been admitted suffering from melancholia, only four died in a condition of dementia.

Among the unfavourable forms of depression may be cited acute melancholia characterised by exhausting restlessness, strong suicidal tendencies, and obstinate refusal of food, as in acute mania, there is great tissue waste, evidence of overfilling of the cerebral vessels, hot head, high temperature, rapid pulse, total sleeplessness, and a tendency to the development of typhoid symptoms, pneumonia, or gangrene of the lungs, and fatal collapse. In such cases then, especially in the aged, the prognosis is hopelessly bad. Digitalis, sedatives and concentrated nutriment rather seem to aggravate than ameliorate the rapid circulation, insomnia, and exhaustion, which soon carry off the patient.

Besides the aged, this form may also occur after the puerperal state, and that generally in primiparæ (as in several cases which have come under my notice at the Derby County Asylum, and Camberwell House Asylum, London), that is to say, it may also occur in persons predisposed to insanity, either debilitated by age, or on whose constitutions there has been a severe drain previous to the attack.

In a simple case of melancholia then we have, let us suppose, given a favourable prognosis. What are the earliest signs that would lead us to suppose we had pronounced aright?

Firstly, there is generally an improved state of the digestive organs, as shown by a clear tongue and regular bowels, then sleep increasing in amount and sufficiently refreshing to prevent the morning exacerbations of the depression and suicidal tendencies, gradual increase in weight, even before any apparent exhilaration or disappearance of the depression begins. Dr. Sankey points out, in his lectures on mental diseases, that *generally* the progress towards recovery is very gradual; the mental improvement may be said to begin by an abnegation of self, that self which has been so absorbing in the early stages. "When I saw," says he, "a patient walk with another in the pleasure ground at Hanwell, or listen to another's tale, I used to view it as a promise of recovery." Amongst other signs of convalescence

he gives alteration in their appearance, tidiness in dress, that is, the expression of a desire for the approbation of others. Then a natural expression of features, "for," he adds, "even with those who have no claims to good looks the return of their own natural expression is an important sign. Another is a desire for occupation, and when recovery is almost complete (this applies to all forms of insanity) the best sign of it is a gradual awakening of the patient to the fact, and admission of the fact, that he or she has been insane." I do not think the importance of the increase in weight as a sign of improvement has been sufficiently insisted on by our text-book authors. Dr. Clouston in his lectures, and Dr. Murray-Lindsay in practice, strongly emphasize this point. Undoubtedly if increase of weight takes place, one of two things must happen—recovery or secondary dementia, and no difficulty need exist in deciding which it is to be if the above signs are duly considered.

The question may be asked, What is the probable duration of the disease progressing to recovery? This depends to such an extent on the constitution and age of the patient that it is impossible to give rules, but in a person without visceral disease and in fair health, simple melancholia should be recovered from in from six to twelve weeks. But this is by no means invariable, as the three cases quoted above will show.

Relapses after melancholia are by no means infrequent, but a comparison of statistics shows the tendency to relapse is less in states of mental depression than in exaltation, as in mania, etc.

To summarize then, we may lay down that simple melancholia is always recovered from except in the very aged or in those who may be aged in constitution if not in years. It is, however, unfavourable where the symptoms, although not of an acute character, show an obstinate refusal of food, due probably to one fixed delusion (not necessarily resistance to its administration by others through the tube). I fed a young man for nine months, four times a day, without any resistance on his part on account of simple delusional melancholia, with refusal of all food. In spite of an excellent constitution and no hereditary taint, he gradually emaciated, and sank from inanition. That in acute melancholia our prognosis must be unfavourable if we find that our forced alimentation and keeping up the animal heat, does not keep pace with the rapid exhaustion and great tissue waste which is going on. On the

other hand, if such a case survive a month, and the alimentation difficulty be by this time got over, we may regard the case as quite coming within the probability of recovery.

(*To be continued.*)

CLINICAL NOTES AND CASES.

Case of Idiocy with Paralysis and Congenital Aphasia; Atrophy of Convolutions. (With lithographs.) By James Shaw, M.D., Haydock Lodge Asylum.

G. L. was admitted for the second time on the 1st March, 1880, aged 18 years.

First admission, Feb. 19th, 1877; he was then described as having both legs flexed, and the right arm flexed and useless. Could feed himself with left arm. Unable to express himself except by screams and howls. Very passionate. A month afterwards was said to be easily amused, and generally happy.

The first record of an epileptic seizure occurs about the beginning of July, 1877.

On the 11th March, 1878, he was transferred to Whittingham Asylum, not improved.

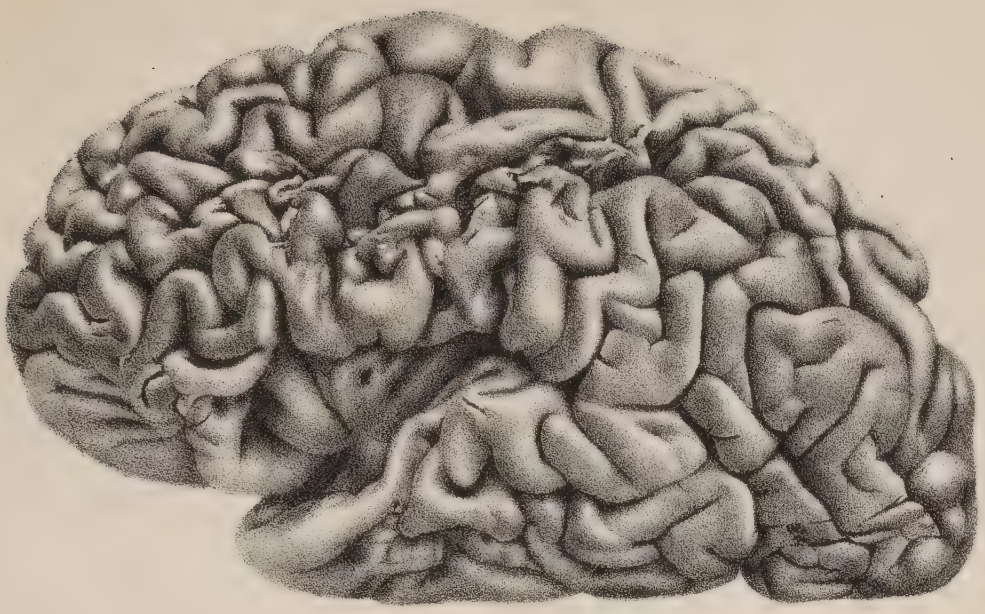
In the medical certificate on which he was readmitted, March 1st, 1880, he is said to have been very noisy, frequently shouting and yelling, and also dirty and destructive in his habits. Condition within a week after admission: he is small for his age, and deformed, with both lower extremities paralysed and contracted, and his right arm in a similar condition. Circumference of head 20 inches.

Pupils dilated but equal. Makes an inarticulate noise, but cannot speak. Took food reluctantly at first, but takes it well now after having had an enema. Knows his name, and when asked where the "baby" is, beats his deformed right hand with his left. Responds to the name of "Georgie" by facial expression and inarticulate sounds.

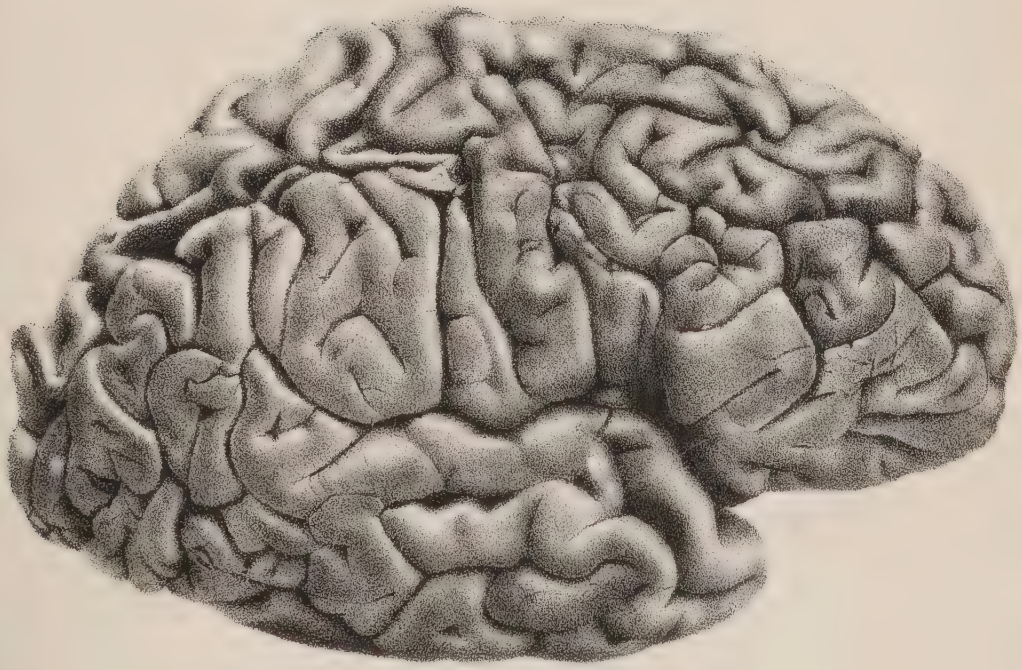
July 2nd.—Has gained flesh, and is more cheerful in expression. Takes notice of surrounding objects, and is jealous of another idiot boy who has been removed to the hospital.

April 2nd, 1881.—Is much thinner and more haggard, and has symptoms of acute phthisis, but no cough, expectoration, diaphoresis, or diarrhœa. Taking extra diet, tonics, and cod liver oil. Cries, and moves his head from side to side when annoyed.

June 17th.—Further description. Eyes large, and affected at times with movements resembling nystagmus. Both legs contracted; thighs flexed on abdomen, legs flexed on thighs, feet normally placed



I.



II.

TO ILLUSTRATE DR SHAW'S CASE.

Mintern Bros. lith.

with regard to legs. Right arm contracted, with shoulder and elbow joints stiff, forearm being flexed on upper arm rigidly; wrist flexed on forearm; can move fingers a little; arm remains stiffly against side; can move left forearm, hand, and fingers freely; cannot, or does not, extend forearm or arm fully, and the movements at the shoulder are restricted. Limbs all emaciated. Vomiting at times.

Apparently sees and hears well. Seems to have a friendly regard for one of his fellow-patients; watches him about the room; prefers being fed by him, and makes an inarticulate noise, as if to express pleasure, when addressed by him.

Lower limbs drawn over to left side, and trunk deformed, the thorax being flattened on the right side. The patient lies on his back, inclining to the left side.

Cutaneous sensibility retained.

July 2nd.—Very thin and feeble, and takes food reluctantly and sparingly.

July 5th.—Very pale and feeble, and almost incessantly whining.

Died on the 10th July, 1881, of phthisis.

Autopsy.—Body emaciated, and very small, having the appearance of that of a child of seven or eight years. Lower extremities very firmly contracted, and drawn over to left, and would not assume the straight position on the application of force, even after tenotomy had been performed. The right side of the chest was shallower, and had the appearance of being more superficial than the left, in the supine position.

Thorax.—Right lung small and tuberculous in its whole extent, with a large cavity near the middle (from base to apex). Left lung tuberculous at apex.

Fluid in pericardium. Heart small.

Cranial cavity.—Arachnoid opaque. Cerebrum small. Cerebellum proportionately large.

	Weight.
Left Hemisphere of Cerebrum	4,598 grs.
Right „ „ „	5,640 „
Left Half of Cerebellum	1,078 „
Right „ „	1,050 „
Pons and Medulla	361 „

Total weight of Encephalon free from membranes 12,727 grains.

I. Left cerebral hemisphere.—Ascending parietal convolution very short, and reduced to a ribbon-like band, except about three quarters of an inch superiorly. Ascending frontal atrophied for about half an inch of its extent, commencing a quarter of an inch from its inferior extremity.

Third frontal atrophied in all its extent, and very small. Lower ramus of second frontal atrophied for about an inch, commencing a quarter of an inch from the ascending frontal.

Temporal lobe deformed. First temporal convolution (anterior half) forms only a thin lip to the fissure of sylvius. Second temporal also atrophied anteriorly. In consequence of the convolutions above and below it being atrophied, or arrested in development, the Island of Reil was abnormally exposed.

II. Right cerebral hemisphere.—Convolutions much more massive than in left. Ascending parietal, otherwise massive, reduced to a ribbon-like thinness for an inch, commencing about an inch from its superior extremity. Occipital convolutions apparently less extensive than those of the left hemisphere. Central ganglia much larger than those of the left side.

Crus, pons, and pyramid less developed on left side.

Remarks.—In this case we find almost complete dextral hemiplegia concomitant with extreme atrophy of the left ascending parietal convolution; aphasia with atrophy or arrest of devolopment of the left inferior frontal; left crural monoplegia with atrophy of a portion of the right ascending parietal; absence of sexual instinct and power of locomotion; existence of seemingly normal vision and hearing; power of moving eyes freely in all directions,with large and relatively very large development of the cerebellum.

On the Effects of Enteric Fever in the Insane. Notes on Twenty-two Cases. By C. M. Campbell, M.A., M.D., Assistant Medical Officer, Durham County Asylum.

In the autumn of last year an epidemic of enteric fever occurred in this asylum. The cases were all on the female side of the old building, from five contiguous wards, having common drainage. The origin was discovered to be a defect in this system of drainage, which has since been rectified.

Twenty-seven cases occurred, five nurses and twenty-two patients being attacked. The five wards accommodate 160 patients, and there were thirteen nurses on duty in them at the time of the outbreak. The first case declared itself on September 1st, the last on October 10th.

It is noticeable that of the twenty-two patients attacked nine had been admitted within one year, six within two years, three within three years, the other four cases having been in the asylum four, six, ten, and nineteen years respectively.

Of the five nurses, the cases, of various degrees of severity, have all made good recoveries.

There was one death, that of a patient, S. A. A., a partial

imbecile, subject to maniacal outbursts, and with mitral disease of the heart. She died on the twentieth day, after peritonitis of twenty-four hours' duration. On post-mortem examination the peritoneum was found to be inflamed, and two ounces of bloody serum were found in its cavity, the blood appearing to have proceeded from a pin-hole perforation in the middle of a large ulcer of the ileum, one inch from the ileo-cæcal valve. The valve itself was surrounded on the cæcal side by a large gangrenous patch formed of five or six confluent ulcers. The mitral valve of the heart was thickened, and both lungs were congested posteriorly.

Of the remaining twenty-one cases, seven were severe, nine of moderate severity, and five slight.

The cases were all isolated in two small side wards. Thorough ventilation and cleanliness were enforced, and a liberal use of carbolic acid made as a disinfectant. The medical treatment was varied, for the most part expectant, and no unusual result followed the use of ordinary remedies. Tepid immersion was tried in one case, in which the temperature was 105·5°. After twenty minutes' immersion in water at 70°, the temperature fell to 102·2°, and continued between 102° and 103° for nearly twenty-four hours, when it rose again to 104·2°, a height not exceeded afterwards. In trying the same plan with another case, however, great prostration and a tendency to syncope came on after ten minutes' immersion, and this mode of treatment was not repeated. A liberal diet of milk and beef-tea was given, with stimulants in moderation in many cases where the state of the pulse indicated their use. A little corn-flour and arrowroot were added to the diet when the temperature became normal and abdominal symptoms disappeared, but in no case among the patients was solid food given until two weeks after the disappearance of abdominal symptoms or elevation of temperature. This plan, which may appear over-cautious, was adopted, as in the case of one of the nurses a serious relapse followed the administration of solid food when no symptom of the disease had been obvious for a week before. In none of the other cases was the gradual return to ordinary diet followed by any bad symptom.

The patients have all made a good recovery. The general bodily health of none appears to have materially suffered, while of several it has improved.

I refrain from reporting here various points of general clinical but not of special psychological interest.

But the effect of the fever on the mental state of several patients was unexpectedly favourable.

Of the twenty-one cases, six have now left the asylum; three discharged recovered, one a general paralytic, in a much improved mental condition, while two others are now absent on a month's leave, with very good prospect of ultimate discharge.

The following description of these six cases is extracted from the asylum case-book:—

(1.) S. A. W., æt. 24, admitted Feb. 21, 1880. Single; servant. First attack, of 10 days' duration; assigned cause, death of mother; suicidal. On admission, was much depressed, thought herself eternally lost, and confessed to temptations to suicide. She improved slightly during summer. On December 1st, she is noted as having become very peculiar in manner, laughing inanely when spoken to, and standing for a length of time in one posture; not exactly depressed, but lethargic, and not to be roused by any appeal to her feelings. She continued in this state until September 23rd, when enteric fever declared itself. September 23rd. Has been ailing for some days; temperature, 102·6°; has had epistaxis; complains of headache; tongue furred and tremulous; bowels fairly regular; abdomen tender, with gurgling on pressure over right iliac region. Put under treatment for enteric fever. This case was of moderate severity. There was no diarrhœa, but great prostration, and frequent vomiting. The temperature became normal on October 23rd, and remained so. The highest temperature reached was 104°, on the evening of October 3rd. November 10th. Is going on well. Improved mentally. The mental improvement began towards the end of the attack of fever, with a lessening of lethargy, a more natural manner, and an increased display of interest in her surroundings. She was removed from the fever ward on December 8th, and was then stout and well, and much improved mentally. January 5th, 1882. Continues in improved state; is cheerful, and works steadily in the ward; manner, shy, but not unnatural; shows interest in all that goes on; is anxious to return home. February 14th. Granted a month's leave, on trial.

(2.) C. D., æt. 20, admitted 15th May, 1880. Single; no occupation; first attack, of three days' duration; cause, unknown; is dangerous to others. On admission, was in a state of acute mania. Passed gradually from maniacal state into a condition of dementia. December 1st. Has become sullen and lethargic; refuses to answer questions; is occasionally violent; is dirty in habits; circulation, weak, with frequent swelling of the feet, and tendency to chilblains. On October 13th, when the fever declared itself, she was still in the state of dementia described above. Temperature, 102·2°; face, flushed; tongue, furred; has had epistaxis; abdomen, full and tender;

a few well-marked typhoid spots on abdomen ; no iliac gurgling ; no diarrhœa. The fever in this case was of moderate severity ; there was slight diarrhœa in the second week ; considerable vascular debility throughout ; the highest recorded temperature was 102·5° on the evening of October 13th ; the temperature became normal on October 18th. October 19th. Quiet and manageable, and seems brighter and less demented since onset of fever. October 25th. Much improved mentally. Pulse, 50-60, very feeble. Ordered 6 oz. of whiskey daily. December 3rd. Moved from fever ward, quite convalescent mentally, as well as physically. January 5th, 1882. Continues to progress favourably ; is getting very stout ; cheerful and industrious ; takes an interest in her surroundings ; is anxious to return home. February 14th. Granted a month's leave, on trial.

(3.) J. F., æt. 31, admitted June 11, 1881. Married ; second attack ; first, when 24 ; treated in Northumberland County Asylum, where her mother's brother is said to be at present a patient. On admission, was in good condition, and fair general bodily health. Her manner was peculiar and excited ; was restless and noisy ; memory for recent events, impaired ; said she was the Virgin Mary, and made many semi-incoherent and extravagant statements. June 22nd. No material change ; is occasionally violent ; is very indolent. July 10th. Quieter, but still very peculiar in manner ; laughs when spoken to, and gives extravagant answers to questions, or no answer at all ; is growing even stouter, and looks very well in the face. July 25th. No mental improvement ; is very pugnacious, tricky, and destructive. September 10th. No change. September 18th. Enteric fever declared itself. The fever in this case was of moderate severity ; the temperature became normal on October 7th, the highest point reached being 103·4° ; there was slight diarrhœa during the first week. November 8th. Is going on well ; has become quite natural in manner during the last few days. December 8th. Moved from the fever ward ; is convalescent mentally as well as physically. January 17th, 1882. Granted a month's leave, on trial. February 14th. Discharged, recovered.

(4.) M. T., æt., 33, admitted January 14, 1881. Married. First attack, of three weeks' duration ; ascertained causes, lactation and privation. On admission, was emaciated and reduced ; incoherent ; dull and lethargic ; memory much impaired ; accused her husband of infidelity, apparently without foundation ; dirty in habits. She was treated by tonics and extra diet. September 10th. Is now greatly improved both physically and mentally ; works well ; is anxious to go home ; slight weakness of memory, and slowness in cerebration, still observable. Enteric fever declared itself on October 3rd. The attack was mild. There was no diarrhœa, and the temperature did not rise above 99·8° ; there was headache, furred tongue, slight abdominal tenderness, marked iliac gurgling, and several well-marked typhoid

spots on abdomen. After the first few days, the temperature did not rise above normal, but abdominal symptoms continued until November 2nd. She was slightly depressed and rather restless during the first few days of the fever; but, after that, the mental improvement in progress when she took ill, continued, and she became brighter and sharper in manner. Her bodily health also improved during convalescence. She was granted a month's leave, on trial, on January 17th, 1882, and on February 14th, was discharged, recovered.

(5.) C. R., æt. 21, admitted June 15th, 1881. Single; charwoman; second attack, of two months' duration; first attack, when 13, for which she was treated at home; maternal grandfather was insane, and she has herself always been rather weak-minded. On admission, was in the third or fourth month of pregnancy; otherwise in fair bodily health. Mentally, she was in a state of mania with hysterical outbursts and lethargic seizures; memory, impaired; mistakes persons; has various delusions; says she has been in heaven, and talks wildly of seeing angels, &c. She gradually improved under treatment, and on September 10th, when the first symptoms of fever showed themselves, she was quiet and rational, anxious to return home, and regarded as convalescent. The attack of fever was mild; highest temperature, 102·5°; temperature became normal on October 9th; there was no diarrhœa. On September 27th, premature labour came on, and she was delivered of twins, one stillborn, the other living only a few hours. The course of the fever was little affected by this incident, and there was no unfavourable post-partum symptom. She progressed favourably, physically and mentally, and was granted a month's leave, on trial, on January 17th, 1882, being then in good physical condition, and fully as well mentally as her friends had ever known her to be. On February 14th, she was discharged, recovered.

(6.) L. M., æt., 29, admitted June 25, 1881. Married; first attack, of three days' duration; cause, childbirth. On admission, was in somewhat reduced condition; she was full of delusions, chiefly of a religious character, saying that she had Christ in her face and the Lord in her mouth, &c.; at times she was depressed, and at times, slightly excited. Under treatment, she became stouter and stronger, but there was no mental improvement. September 10th. Is full of delusions as to food and persons; is emotional; is gaining flesh; gait, slightly wanting in firmness; does not protrude her tongue nor withdraw it very readily; appearance indicative of general paralysis. She was in this state when the fever declared itself on September 19th. The attack was severe; the highest recorded temperature was 104·5°, and it did not become normal until October 31st; there was great prostration in the third and fourth weeks; there was very little diarrhœa. The ataxic symptoms became decidedly more marked during the fever, and decided euphoria made its appearance; she frequently said she was quite well when the symptoms were most severe. With the appearance of euphoria, she gradually lost the painful delusions as

to food and persons she had previously, and these did not reappear. She was moved from the fever ward on December 4th; at this time she was making a good recovery from the fever; the euphoria was still present, but was less marked, and she was apparently quite free from delusions. The slight increase of ataxia, which came on during the fever, remained after convalescence. She was granted a month's leave on trial on January 17th, 1882, being then quiet, rational, and industrious, and was discharged on February 14th.

Only three other cases, from among the number attached, can be considered curable, and in none of these is the prognosis favourable. In two there has been decided mental improvement:—

(7.) S. W., æt. 50, admitted May 14, 1881. Married. First attack, of one year's duration; ascertained causes, change of life, and trouble from intemperance of husband. On admission, was in reduced bodily condition; much depressed; had distressing hallucinations of sight and hearing. Up to September 18th, when symptoms of enteric fever first showed themselves, there had been no mental improvement under treatment. The attack of fever was mild; there were well-marked abdominal symptoms, but the temperature did not rise above normal. The mental symptoms were intensified during the first few days of the fever. As convalescence advanced, she improved considerably mentally, becoming less depressed, and not so much harassed by her delusions. March 1st, 1882. Is now in fair bodily health, and in better condition than she has been in since admission; still has hallucinations of sight and hearing, but they are not of a distressing character; is, as a rule, fairly cheerful, converses rationally on subjects apart from her delusions, and is able to work steadily.

(8.) M. L., æt. 43, admitted November 9th, 1880. Single; servant. First attack, of seven months' duration; ascertained causes, menstrual irregularity and monotonous mode of life; onset, very gradual, peculiarity extending back for some years. On admission, was anæmic and nervous, depressed in spirits, imagining she had done some great wrong. Under tonic treatment, she improved physically, and became fairly cheerful and industrious, but developed various delusions of an amatory character, thinking that she had a lover who lived in the asylum kitchen, &c. This was her state on October 8th, when the fever declared itself. The attack was of moderate severity. Convalescence was tedious, but she has now regained her former somewhat delicate bodily health. There is no farther change in her mental state, and none appeared during the fever.

(9.) M. R., æt. 47, admitted June 25, 1880. Hawker; suicidal and dangerous to others. From admission up to date of attack she was frequently depressed, and several times displayed a marked suicidal tendency, and was at times exceedingly violent, destructive, and dangerous. First symptoms of enteric fever showed themselves on September 30th. The attack was mild; abdominal symptoms con-

tinued for 30 days; the highest recorded temperature was 99·2°. She was a great mischief-maker while in the fever wards, but, since her recovery from the fever, she has much improved in this respect, and has had no attack of violence since its onset. She is now quite manageable, and deprecates allusion to her past conduct. From her past history, as given by herself, she appears to have already been in various asylums and prisons.

Besides Case 5, another general paralytic was attacked, the effect of the fever on the paretic symptoms in this case being specially interesting :—

(10.) M. P., æt. 40, admitted March 11, 1880. Married. First attack, of three years' duration. From admission up to the attack of fever there was little change in her state. Pupils, unequal; speech, slightly affected; slight tremor of tongue and facial muscles; gait wanting in firmness; was a regular worker in the kitchen, and was usually in great good humour, with occasional outbursts of dangerous violence. The fever declared itself on October 4th. The attack was of moderate severity; bowels, confined; temperature, 102° to 103° during first week, after which it fell considerably, and became normal on October 25th. During the first week, when the temperature was high, the nervous prostration was most marked, and there was a noticeable increase in the symptoms of ataxia and dementia. The patient presented the appearance of an advanced stage of general paralysis; tremor of facial muscles, inability to protrude tongue, considerable difficulty in swallowing, dirty habits, and almost total inability to comprehend what was said to her. This increase of paretic symptoms gradually passed off as the temperature fell, and during convalescence. She is now, March 1st, working again in the kitchen regularly, and has quite regained her former condition physically and mentally.

The remaining 11 cases may be briefly stated.

(11.) C. B., 29, admitted February, 1879. Chronic maniac. Severe attack of fever, with relapse, and peritonitis. Much reduced physically, but now regaining strength. Slightly improved mentally.

(12.) C. H, 22, admitted March, 1881. First attack, of two years' duration. Is childish and passionate. Severe attack of fever, lasting five weeks. Has now regained her former bodily strength. No change in mental state

(13.) E. D., 25, admitted March, 1881. Is epileptic, partially demented, and at times violent. Attack of fever, moderately severe. Has quite regained her former physical health and condition. No change in mental state.

(14.) E. H., 30, admitted August, 1880. Chronic mania. Attack of fever, moderately severe. General bodily health and condition improved since attack. No change in mental state.

(15.) M. C., 42, admitted December, 1879. First attack of 18-20 months' duration. Is in a state of chronic mania. Attack of fever of

moderate severity. Has now regained her former somewhat delicate bodily health. No change in mental state.

(16.) S. T., 26, admitted September, 1879. A chronic maniac and dement. Attack of fever, severe. Has more than regained her former very fair bodily health and condition. No change in mental state.

(17.) E. B., 39, admitted September, 1871. Much demented, and very dirty in habits. Attack of fever, severe. Has almost regained her former fair bodily health and condition. Is slightly less demented, and less dirty in habits; otherwise there is no change in her mental state.

(18) J. A. S., 27, admitted January, 1881. Has been blind since a week after birth; is a partial imbecile, with maniacal outbursts, at times dangerous and suicidal. Attack of fever, moderately severe. Has regained her former rather delicate general health. No change in mental state.

(19.) D. W., 50, admitted February, 1862. A chronic maniac, much demented, dirty, and dangerous. Severe attack of fever. Has regained her former fair bodily health. No change in mental state.

(20.) A. G., 35, admitted May, 1877. A congenital imbecile. Attack of fever, severe, with congestion of the lungs. Has almost regained her former fair bodily health and condition. No change in habits, or in mental state.

(21.) E. C., 29, admitted July, 1877. A chronic maniac, much demented. Attack of fever, severe, with congestion of the lungs. Has almost regained her former rather delicate bodily health. No change in mental state.

From the foregoing notes it may be seen that in these 21 cases, while the general bodily health appears in several cases to have improved and in no case to have materially depreciated, the mental state of no case has been injuriously affected, and that there has been decided improvement in a fair proportion, and marked improvement in several. The following points are noticeable:—

1. That the mental convalescence of the two patients (4) M. T. and (5) C. R. was not unfavourably influenced by the attack of fever.

2. That, in the case (3) J. F., where there had been no mental improvement up to the time of the attack of fever, decided improvement commenced during its course, and proceeded, with physical convalescence, to complete mental recovery.

3. That the mental improvement in the case of the general paralytic (6) L. M. commenced during the latter part of the fever, and proceeded so far as to admit of her returning home.

4. That mental recovery in the case of (1) L. A. W., and,

still more markedly so, in the case of (2) C. D., in which the prognosis had become very unfavourable, commenced during the attack of fever.

5. That distinct mental improvement has taken place in the cases (7) L. W. and (9) M. R., and slight improvement in (11) C. B. and (17) E. B.

6. That in the remaining 10 cases, in which the prognosis is either hopeless or very unfavourable, the mental condition has been unaffected by the attack of fever.

The case of (2) C. D. is specially noticeable. Here the dementia was so profound, and had continued so long without the slightest indication of improvement, that her case might well have been regarded as hopeless. In case (1) L. A. W., also, although the prognosis was not so unfavourable, her chances of ultimate recovery were becoming less and less hopeful.

In the fatal case, S. A. A., from the congenital defect, any decided mental improvement could not have been expected.

As far as this limited number of cases is a criterion, there seems little doubt that the effect of enteric fever on the mind of the insane is, on the whole, favourable. A more disputable point is whether the mental improvement, in those cases in which it occurred, was due to any changes in the nervous system, or in the blood, belonging to the pathology of enteric fever, or to the favourable influence of the extra attention received while under special treatment, and to the strong impression made on the mind by the consciousness of serious illness, or was brought about by combination of these circumstances.

P.S. May 29, 1882.—The patients mentioned above as having been granted a month's leave were, in due course, discharged recovered. There has been no material change during the last two months in the mental or bodily state of those cases then noted as still in the asylum.

Case of Prolonged Fœcal Accumulation with great Distention of Bowel. By J. Carlyle Johnstone, M.B., Senior Assistant Physician, Royal Edinburgh Asylum.

Mrs. T., admitted May 10th, 1852. Age 34; married. An intelligent woman of kindly and somewhat melancholy disposition, active habits, and nervo-bilious temperament. First attack; duration 14 days; assigned cause, religious excitement; was nursing her fifth child. Fancied that her husband and other relations were going to

murder her, and were plotting against her, and expressed many delusions of a religious character. Had attempted suicide by precipitation. There was hereditary predisposition to insanity. Her general health was good.

She remained greatly excited for some weeks after admission, then made a partial recovery, and ultimately settled down into a state of mild dementia. She is said to have been treated with warm baths, purgatives, and opiates.

For ten years she appears to have had excellent health, and is reported as being a steady and useful worker in the kitchen and scullery. In the beginning of 1862 her health began to fail, and it is noted that "she is often in bed for a week or so every two or three months, but refusing to speak or answer any questions." In 1866 distinct signs of phthisis pulmonalis were observed, and her case was looked upon as a typical one of "phthisical insanity." The lung disease, however, did not make any great advance, and it caused her little discomfort of late years. From this period onwards there was a gradual failure of health, and every year or so she was laid up for a few days or weeks. These periodical attacks were apparently of a bilious nature. Patient, without making any complaint, went quietly to bed, lay there silently until the sickness had subsided, and then resumed her daily round of work. When questioned, she simply said that there was nothing the matter, and it was only with the greatest difficulty that she could be got to take any necessary medicine. For many years her abdomen had been noticeably increased in size, but she gave no expression of pain or other indication pointing to any serious disease in that region, nor did she at any time complain of constipation. It is noted in June, 1877, that "she took to her bed lately, and fancied she had been confined, but mother and child did well in an extraordinarily short time." When well she had a prodigious appetite, and her own treatment of her attacks of sickness was to abstain from food for a few days. She was a most useful patient, doing the work of any paid attendant, taking the greatest care of the other patients, and well earning her title of "mother" from all who knew her. She was, withal, quiet, orderly, and reserved, moving about the house in a silent and sedate manner, not caring to talk with any one, evidently remembering little of the past, careless as to the future, and satisfied in the present. She was not, therefore, a person on whom advice could readily be thrust, or with whom the officials would willingly interfere against her inclination, and she was thus allowed to have her own way, perhaps, a little too much.

About ten days before her death she was laid up with one of her usual attacks of sickness, vomiting, and diarrhœa. As usual, she made no complaint, resented interference, and refused food and medicine. She was, however, induced to take several doses of purgatives, with the result, according to her own statements and the observations of the attendants, that there was a free movement of the bowels. The

sickness continuing, she was given small doses of calomel at short intervals. The vomited matter was bilious in appearance; the urine was very dark, and appeared to contain bile; there was no increase of temperature. The vomiting ceased, and patient began to rally, being able to move about the house and to take a considerable amount of food. At the same time she became unusually excited and loquacious, her last night being a particularly restless one. Two days before she died her attendant remarked that the abdomen was increasing rapidly in size, but as this had occurred, and to the same extent, on former occasions, and as the medical officer attending the case was from home, it was not considered that patient's condition called for any active treatment. She arose on the morning of her death of her own accord, took some breakfast, and then fainted away and died, 17th Feb., 1882; age 64.

Autopsy.—29 hours after death.

Body poorly nourished; abdomen enormously distended, measuring 3 feet 7 inches in circumference at the umbilicus; percussion note generally clear.

Brain.—Membranes normal. Considerable escape of cerebro-spinal fluid on removing organ. Frontal convolutions small. Floor of fourth ventricle granular. Organ otherwise fairly normal.

Heart, healthy. *Lungs*, compressed and of doughy consistence; firm adhesions at both apices posteriorly; in each apex a small cicatrix and limited area of caseous and granular degeneration. *Liver* slightly mottled on section; consistence normal; gall bladder empty; no gall stone. *Kidneys*, capsule very firmly adherent to cortex; cortex pale and granular in appearance, and much diminished in size.

Intestines.—The intestines are enormously distended with flatus and fæces. The ascending colon measures 2 feet $2\frac{1}{2}$ inches in circumference; the remainder of the large intestine is distended to a somewhat less extent. The rectum completely fills the pelvic cavity, the bladder being pushed upwards, and the uterus compressed and flattened, and increased in its tranverse diameter. The small intestine is fairly normal in size and contents. There is no abnormality at the ileo-cœcal valve, and there is no stricture or other organic obstruction in the course of the large intestine. The large intestine is crammed with soft fæces, while the rectum is tightly and closely packed with fæces of hard consistence. Section of the intestine shows great hypertrophy, the walls being about twice the normal thickness. The increase is chiefly due to the excessive development of muscular fibre. The mucous membrane is considerably congested in patches, and there are numerous small superficial erosions.

A Case of Endarteritis with Insanity and Aphasia. By Richard B. Mitchell, M.B., C.M., Assistant Medical Officer, Fife and Kinross District Lunatic Asylum.

(With Illustrations.)

(Read at a Quarterly Meeting of the Medico-Psychological Association held at Glasgow on March 8th, 1882.)

Mrs. N., æt. 40, married, teacher. Admitted to the Fife and Kinross District Asylum on June 9th, 1880.

History.—Her mother was said to be "weak-minded," but apart from this there was no hereditary predisposition to insanity, and the family history was good.

Her abilities had been fair, and she had received an average education. This was her first attack of insanity, and no cause for it was known. She had been married for 23 years, but had never had a child. She had been three years in India, but stood the climate very well. For the last two years previous to admission she had suffered from menorrhagia every fortnight. There was no history of venereal disease. Habits had always been very steady; she had always been a total abstainer, and "very religious." In January, 1879, she suddenly dropped her cup and saucer one morning, and she "seemed to have lost the power of feeling things," as very soon after that day it was noticed that her hands, but especially the right, trembled a good deal when she was fastening buttons or tying knots, and that she had difficulty in the performing of these acts. Now and then she complained of very severe pains in the calves of the legs, and she got very soon fatigued if she went for a walk outside. The motor symptoms went on gradually increasing for about six months, and then one day, on coming in from a walk, she was noticed to be confused mentally, and resembled in her general appearance "a person who had been drinking." This state lasted only a few seconds, and she then went about her work as usual.

In October new symptoms became developed. It was noticed that she spoke "as if her tongue were too big for her mouth," or "like a person who speaks thick from the effects of liquor," and she often made mistakes in words. Thus she would say, "What's the matter?" when she really wished to say, "What o'clock is it?" She also began to be childish in her manners. About this time twitchings of the lips, the tongue, and the muscles of the legs were often observed in addition to the trembling of the hands, and the pupils were noticed to be contracted and unequal. Her control over the movements of the lower limbs became diminished, so much so at times that she could scarcely walk.

During the next six months the gravity of the mental and motor symptoms continued, on the whole, to increase, but there were pretty frequent remissions. She often now had difficulty in expressing her-

self in articulate speech, as she often said "yes" when she meant "no," and *vice versâ*. At the same time she often had less difficulty in spelling and pronouncing long words than short ones. The nervous and mental disturbance was more marked before each attack of menorrhagia. During March, 1880, she was treated in an infirmary. She could generally get up and go about the ward, and could generally feed herself, but was sometimes unable to do so from her inability to control her movements. She was subject to fits of screaming, and was sometimes very childish. It was observed that her speech had a *staccato* character. The case was at that time diagnosed as general paralysis of the insane.

Her state on admission to the Fife and Kinross Asylum, in June, 1880, was as follows:—

Thoracic and abdominal viscera healthy. Common sensibility and sensibility to pain pretty acute all over the body; plantar skin-reflex much exaggerated, and patellar tendon-reflex also, especially on the right side. Right pupil contracted, left normal size; both sluggish to action of light. Tip of tongue could not be protruded beyond the teeth. Sides of face equal as regards the lines of expression and motility, and patient looked fairly intelligent. There were slight fibrillary tremors in all the facial muscles. The chin was often jerked spasmodically up and down, or backwards and forwards. When patient was taken by surprise she often made a snorting sound in her throat, as if there were some paralysis of the soft palate. She snored heavily while asleep. Mastication and deglutition were performed clumsily, but without marked difficulty. Phonation normal. The fingers were semi-flexed, and resisted extension. The arms, legs, hands, and feet were almost constantly shaken with tremors, which were most marked on the right side. Voluntary movement was accompanied by extreme and uncontrollable spasmodic action in the limbs. Delicacy and precision of prehensile movements, and, in fact, of all manual movements, were much impaired. When asked to take hold of a light object, such as a pencil, she obeyed in a clutching, fumbling, uncertain way, and she could not hold it properly. There was a considerable degree of paresis in the upper and lower extremities, besides the more marked ataxy and tremors. She could not walk or stand without support; otherwise she could move her legs pretty freely, but in a most disorderly, ataxic style.

There was considerable emotionalism and mental enfeeblement, but she understood what was said to her if it was expressed distinctly. She took considerable interest in her surroundings, and seemed, on the whole, to be pretty well satisfied with them, but she was subject to periods of screaming for which there was no apparent cause.

As regards language, she had almost lost the power to express her thoughts in articulate speech. When questioned she tried hard to reply, but as a rule she only succeeded in uttering a string of short interjections, such as "Oh—oh—oh," or "Aye—aye—aye." She had

scarcely any propositions besides "yes" and "no," but she had not always the propositional use even of these words; they were often as articulated by her mere "utterances." Thus, after saying "yes" or "no" *propositionally*, she often kept on uttering "yes" or "no" in reply to everything said to her, all the time apparently quite unconscious of the unsuitability of her replies in many of the cases. Often she uttered "no" when she meant "yes," and *vice versâ*. Many of her utterances occurred unexpectedly, and as a rule they were articulated in a slow, subdued manner, but they were sometimes suddenly "rapped out." As a rule, the more one tried to make her speak the more inarticulate she became. Sometimes she repeated a word uttered in her hearing, *but she could rarely repeat a word when asked to do so.* She would, on request, read aloud a few lines from a printed book with distinctly less difficulty than she showed in original propositionizing, but at the same time she resembled one who was only learning to read, and to whom the letters and words were still unfamiliar.

Even allowing for the ataxia, her power of pantomime was distinctly impaired. She aided her defective articulation by signs, but she nevertheless often shook her head for assent and nodded when she meant "No."

During the first ten days after admission the nervous and mental phenomena varied in degree from time to time, but motility, on the whole, improved so far that she could walk a few steps by herself and hold a spoon properly. Articulation also improved, and at three different times she said intelligently, "Good-night," "Good-morning," and "Some better." On one occasion, when asked her name, she said, "I won't tell you," and immediately afterwards, when asked to write, she said, "I couldn't." The average morning temperature was 98·2° F., evening 99·3°, and the maximum evening temperature 100·6°.

By the 29th June, three weeks after admission, the motor powers had improved considerably, and the intelligence was clearer; the tremors were much less marked; she could walk better, though very unsteadily, and she fed herself at all her meals. The tip of the tongue could be protruded beyond the teeth, and the articulation was much improved, although markedly halting and laborious, and at times "explosive" in character. She tried to write to her husband at this time after much coaxing. The result of the attempt occupied about five lines altogether, consisting chiefly of irregular scratches and obscure characters. She began, "*Dear*," "*Dear*" (very indistinctly written); then came a number of irregularly formed letters and scratches, which might stand for "*I am disappointed;*" then more illegible scratches, and then "*You come to see me*" (pretty distinctly written). "*Never*" was the last legible word, and between it and the signature (which was repeated and wrongly spelt both times) came a number of runic-looking marks.

After the above date a relapse occurred. The tremors again becamo

very marked, as well as the general ataxy and paresis, and the articulation was much worse. She became more enfeebled mentally, and then became completely demented. Yet about the middle of September there were three occasions, but only three, on which she had utterances of high speech-value. She was asked how she had liked India, and she at once replied, "Oh—I—liked—it—first—r-rate," immediately afterwards adding, in the same drawling, syllabic way, "I—don't—know—how—ma-ny—I—h-had," when asked how large her class was. On the other two occasions about this time she said intelligently "Good-night" and "Good-morning." After this her utterances were limited to "Yes" and "No," and for the last six weeks of her life she was entirely mute. She recognised her husband shortly before her death, and showed her pleasure at seeing him by giving forth cries and inarticulate sounds.

Bed-sores formed over both trochanters 70 days before death. On December 25th she had an "epileptiform seizure." Three days afterwards rapid and violent spasmodic twitches of the muscles set in all over the body, and remained almost constantly for a week. There was now rigid flexed contracture of the limbs at all the joints. Patient became reduced to the last stage of weakness, and died on February 4th, 1881, after an illness lasting in all 25 months.

Autopsy 40 hours after death.—Body much emaciated. Bed-sore over each trochanter, one over right ilium, and a small one over right acromion process. Rigid flexed contracture of all the joints of the limbs, most marked in the lower limbs.

Heart healthy. Aorta very much thickened, and its inner coats thrown longitudinally into numerous folds.

Lungs.—Right slightly adherent at the base; the lower lobe contained a cavity the size of a hazel-nut, and in the apex was another cavity the size of a walnut, both containing a dark, inodorous fluid. Left healthy.

Liver cut more firmly than is usual, but appeared to be healthy. No evidence of waxy disease.

Spleen normal.

Kidneys.—Both cut very firmly. Pelvis of right was dilated and filled with urine, as was also the ureter leading from it.

An ovarian tumour, about the size of a fœtal head at the full time, was found in connection with the right ovary, filling up this side of the pelvis and compressing the ureter and other organs.

Spinal Canal.—Vertebral laminæ appeared somewhat harder than normal. Subarachnoid fluid increased in amount. Membranes of cord healthy.

Spinal Cord.—The cervical and upper two-thirds of the dorsal region seemed of normal consistence, but the lower third of the dorsal and the lumbar were firm and resistent, and could be, as a whole, lifted up by the middle almost without bending. Section of cervical and upper two-thirds of dorsal was pale, and showed the grey matter

indistinctly defined from the white. Lower third of dorsal and lumbar cut crisply; periphery of section was grey, and was firm to the touch, this being most marked in the posterior and lateral columns of the lumbar region.

Cranium.—Skull-cap symmetrical; diploe diminished. Some roughness of inner surface of frontal bone on both sides at vertex. Dura mater somewhat thickened and anæmic. Pia mater much thickened and fibrous, opaque, milky, and anæmic; it stripped freely from the subjacent grey matter. Gyri were much atrophied generally; sulci wide, and filled by clear serous fluid. On right hemisphere, where second frontal gyrus joined the ascending frontal, there was a distinct localised atrophy the size of a filbert, and a similar atrophy the size of a hazel-nut occupied an exactly corresponding spot on the left hemisphere. The third left frontal gyrus was especially atrophied, and the gyri in its immediate neighbourhood were more atrophied than those of the corresponding region of the right hemisphere. The basilar artery and the vessels of the *circle of Willis* and its branches were studded with a number of oval, thickened, whitish spots varying in size from a pin's head to a split pea. The membranes at the base of the brain and the *lamina cinerea* were tough. Fourth and lateral ventricles had their ependyma thickened and covered with abundant granulations. Cerebrum on section cut crisply; white matter was pale, grey matter diminished in depth, the outer layer of it having a pale gelatinous, semi-transparent appearance, and felt firm and resistent to the touch; inner layer was congested. Cerebellum, pons, and medulla fairly normal on section.

Encephalon weighed 46 ounces.

Microscopical Examination.

Cerebrum.—The pia mater was everywhere much thickened, and in some places markedly so, as over Broca's convolution and those surrounding it where there were numerous fibrous layers, and abundance of nuclei between the layers. The vessels were thickened, and were dilated with blood. Some small arteries were distended with a yellow granular-looking material, and all those above $\frac{1}{400}$ of an inch in diameter presented on transverse section a wavy and crenated appearance, due to the inner coats being wrinkled and thrown longitudinally into folds. There were no miliary aneurisms. The neuroglia was everywhere much increased as regards its fibrillar element, but there was only a slight degree of proliferation of its nuclei. Patches of "miliary sclerosis" in the first stage were abundant throughout the convolutions, chiefly in the white matter. They varied in size from $\frac{1}{100}$ of an inch downwards, and the majority of them had a greenish yellow tinge, probably due to the chromic acid in which the preparations were hardened. In more than one case a patch was seen embraced by the two branches of a vessel at its bifurcation. In two cases a vessel could be dimly seen through a

patch, and apparently bent down into a deeper plane by it. In many instances patches were seen in groups of three or four, fusing together by their borders.

A. *Frontal Lobes.*—There were numerous empty vacuoles in the more superficial layers of the grey matter. The nerve-cells were, as a rule, diminished in number and in size; they were generally surrounded by vacuoles, and they stained dimly with carmine. Some were rounded, some shrivelled, and most showed a greater or less degree of yellow granular degeneration, although in no case observed had this process gone on to cell-disintegration. In most cases the processes were very indistinct, and the nucleus and nucleolus invisible.

As a rule the perivascular canals were widely dilated, and proliferation of the nuclei of the perivascular sheath was well seen. The vessels themselves were, in many cases, highly tortuous; they were dilated in an irregular manner, and, in many places, were distended with blood corpuscles; their walls—between and outside of which lay numerous haimatoidin granules—were distinctly thickened, especially the muscular coat and the tunica adventitia.

Many of the smaller vessels were occluded, apparently by slow inflammatory changes in their inner walls, and these, along with the capillaries, exhibited well-marked proliferation of their nuclei.

In the deepest layers of the grey matter, and in the immediately subjacent white matter, a large number of round bodies were seen (see Fig. iii.) varying in size from $\frac{1}{200}$ of an inch downwards. They were deeply stained with carmine. The largest of them presented a rough, mulberry-like appearance, and were evidently composed of a number of bodies identical with, if not actually, amyloid corpuscles. In every case these aggregations were in the neighbourhood of a vessel.

All the above appearances were most marked in the third left frontal gyrus in its posterior portion.

In the grey matter of the right ascending frontal gyrus were a few unevenly oval empty spaces surrounded by a deeply stained area of brain-substance. There was hæmatine close to them, and the broken end of a vessel terminated in one of the spaces. A number of small, rounded, apparently non-nucleated bodies with short curved processes were seen in most sections; they were more frequent in the grey substance, and especially so in the posterior tip of the third left frontal gyrus.

B. *Parietal Lobes.*—The convolutions on the right side presented the same morbid appearances as those seen in the frontal lobes, only in a less marked degree. On the left side the cells stained much better, and were more healthy. In the fourth layer of the grey matter were one or two very large bloated pyramidal cells with the nucleus and nucleolus very sharply defined, but the contour of these cells was dim, and they were being extensively invaded by yellow granular degeneration.

C. *Occipital Lobes.*—These presented a more normal appearance than the frontals and parietals. The cells stained deeply, and had sharply defined borders. The vessels, however, had the same appearances as are noted above, although in a less degree.

D. *Corpus striatum* showed great richness of the neurogliar nuclei, and a few of the bodies represented in Fig. iii. were present.

Cerebellum presented nothing abnormal beyond a few very small patches of miliary sclerosis.

Right Crus Cerebri.—Many of the multipolar cells of the *locus niger* were pigmented to an extreme degree, and some were represented merely by dark brown granular masses without poles.

Pons Varolii.—Many of the cells showed nucleus and nucleolus very distinctly, but contour and processes were not as a rule well defined. There were numerous patches of miliary sclerosis, and in one case a patch was seen pushing a vessel aside, and compressing it so as to entirely occlude its lumen. (Fig. i.)

Medulla Oblongata.—The olivary cells were, nearly all, affected by yellow granular degeneration: they did not stain at all well, and their processes were very indistinct. Some of the cells in the floor of the fourth ventricle were highly fuscous, several being represented merely by dark brown granular balls. Periphery of the grey tubercles of Rolando fairly healthy. The vessels near the nuclei of the hypoglossal nerves were in most cases dilated and engorged with blood. A few scattered *corpora amylacea* lay close to the floor of the fourth ventricle.

Spinal Cord.—Pia mater was not much thickened, but its vessels presented the same appearance on transverse section as those in the cerebral pia mater. The fibrous septa of the cord were increased in number and in size, and there was a marked general hyperplasia of the connective tissue elements at the expense of the nerve-tubes, this being most marked in the posterior columns, and in Goll's columns. This sclerosed condition was most evident in the lower third of the dorsal and in the lumbar portion of the cord. The cells of the "cornua" presented a fairly normal appearance, being only in a slight degree affected with yellow degeneration. Some of the cells contained a number of minute black granules. *Corpora amylacea* were pretty numerous, and were best seen over the origins of the nerve roots; they were most abundant in the lumbar portion of the cord. No part of the cord presented miliary sclerosis except the dorsal portion, but in it the patches were extremely numerous.

Middle Cervical Sympathetic Ganglion.—The nucleated fibrous capsule around each cell was very clearly seen, and was sharply defined. Many of the cells contained yellow granular material; some of them were filled with it, and in these cases the nucleus was invisible, and the processes and contour of cell were indistinct. The connective-tissue framework between the cell-capsules contained an abundance of fusiform and other nuclei.

I.—As regards the patient's practically speechless condition, which is the most interesting feature of the symptomatology of this case. Failure of ideas and of the understanding had apparently not much to do with the speech affection. *She understood what was said to her.* Thus, for example, she attempted to read aloud when she was asked to do so, and she tried hard, and with an intelligent expression, to reply to questions. In short, she obeyed orders to the best of her ability, except when she was more than usually obstinate. It is therefore indicated that her "nervous arrangements for words used in understanding speech" were not so very gravely disturbed. But both an ataxic and an amnesic element seem to be present in the case.

That ataxy and paresis of the articulatory muscles accounted in part for the speech-phenomena observed seems certain.

For, 1st, the gravity of the speech-affection varied as a rule in the same ratio with the degree of ataxia displayed in the tongue, as well as with the degree of ataxia generally.

2nd. The speech was slow, laboured, and often "explosive" in character.

3rd. Patient became more inarticulate the harder she tried to speak.

4th. She was rarely able to repeat a word *when asked to do so.*

In harmony with these facts is the unhealthy state of the cells in the nuclei of orgin of the ninth nerves, and of those in the *corpus dentatum* of the medulla.

But it seems impossible that ataxy of the muscles of articulation alone can account for such manifestations as (*a*) her often saying "Yes" when she meant "No," and *vice versâ ;* (*b*) her often saying "Yes" or "No" indiscriminately in reply to all questions ; (*c*) her often nodding the head for dissent, and again shaking it for affirmation. Another element seems to come in here, and a further defect to be indicated, a defect apparently of an *amnesic* nature, viz., a form of "inco-ordinate defect of memory," in which "the person cannot recollect the words in which he wishes to express himself . . . . , and is moreover unconscious that he makes use of wrong words."* This would correspond

* Bastain on "Loss of Speech in Cerebral Disease."—"Med. Chir. Review," January, 1869, p. 212.

FIG. 1

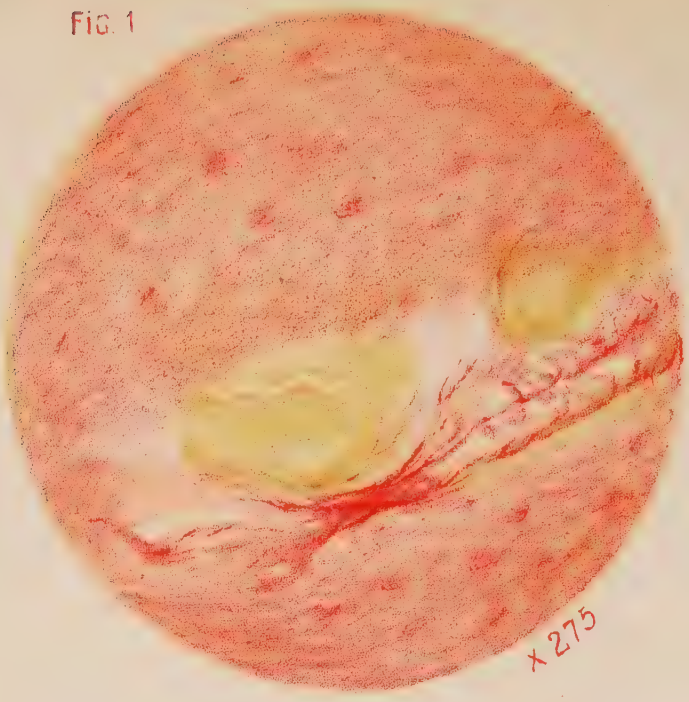


FIG. 2

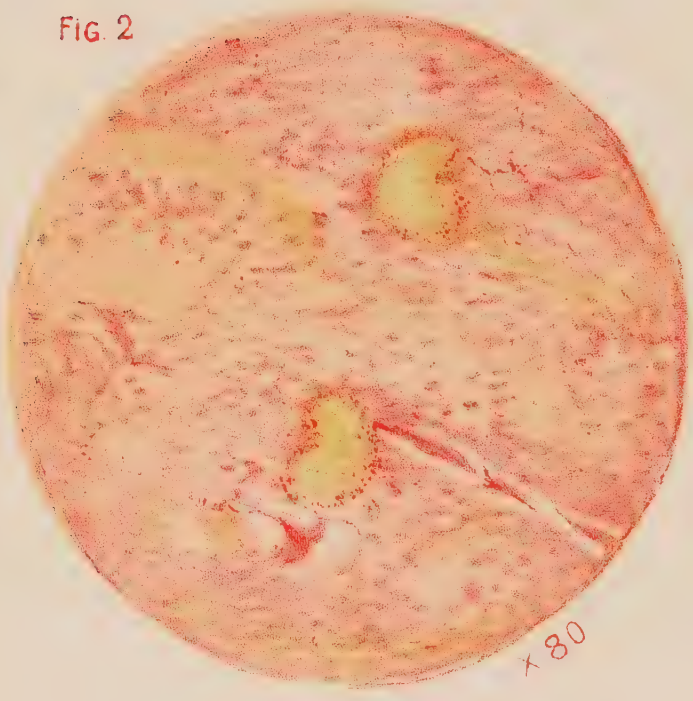
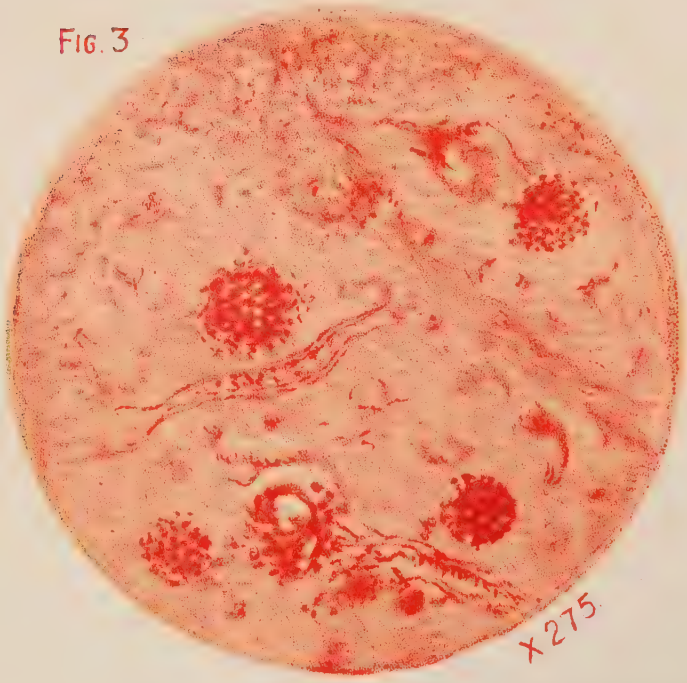


FIG. 3



J. B. T. Delt & Lith.

To Illustrate Dr Mitchell's

with the lesions in the frontal gyri, among which Broca's convolution was distinctly the most affected. The "defect of speech" which the patient showed in October, 1879, several weeks before the establishment of mental symptoms at all, is evidently of the same nature (*i.e.*, amnesic), and was produced probably by disturbances in the intra-cranial blood-supply caused by the inflammatory changes in the minute blood vessels—changes that led ultimately to the occlusion of many of them.

II.—As regards the presence of miliary sclerosis in the cerebro-spinal system, it is worthy of note that

1st. The patches were numerous and distinct in sections that had been exposed to the action of alcohol for a period of not more than thirty hours altogether.

2nd. No trace of miliary sclerosis was detected in the corpus striatum, the medulla oblongata, and the cervical region of the cord, although these were exposed to the action of alcohol for exactly the same length of time and under precisely the same conditions as the right ascending frontal gyrus, left vertex, and other portions of the brain, and spinal cord, which were more or less thickly studded with well-marked examples of the lesion.

3rd. The patches were generally as distinct in those sections that had been exposed a *short* time to the action of the chromic acid used for hardening the nerve-tissues, as those exposed for a longer period.

III.—So far as I have been able to ascertain, the bodies represented in Fig. iii. have not been described previously. I have submitted several of the sections containing them to Dr. Batty Tuke, of Edinburgh, and he assures me that he does not remember having ever seen them before. It is difficult to suggest a theory of their origin. In some cases one was inclined to think that they represented the position of a vessel which had become obliterated, and that its space was now represented by a mass of proliferated nuclei.

EXPLANATION OF PLATE.

Fig. I. shows vessel pushed aside, and compressed by a mass of miliary sclerosis. × 275.

Fig. II. shows diffused masses of miliary sclerosis with induration of surrounding tissue. × 80.

Fig. III. shows aggregations of amyloid bodies or nuclei. × 275.

OCCASIONAL NOTES OF THE QUARTER.

Charles Darwin.

It is too soon yet to estimate the precise value of Darwin's observations and speculations in relation to mental science. That, however, not only the theory of evolution, but what is distinctively Darwinian, has an important bearing on our conception of mental manifestations, no one will call in question who has studied that remarkable contribution to comparative psychology "The Expression of the Emotions in Man and Animals" which appeared in 1872.

To whatever degree, if any, Darwin's theories may have gone beyond the inductions warranted by demonstrated facts, his death is an irreparable loss to science. In the minds of those who saw him laid in the tomb in Westminster Abbey, many and various reflections must have arisen in witnessing the tribute of respect paid to departed talent and worth by all shades of opinion in the religious as well as the scientific world, and the lines applied to a great statesman by Sir Walter Scott cannot fail to have occurred to some as applicable in no small measure to Darwin:

> "For talents mourn, untimely lost
> When best employ'd, and wanted most.
> Mourn genius high, and love profound, . . .
> And all the reasoning powers divine
> To penetrate, resolve, combine;
> And if thou mourn'st they could not save
> From error him who owns this grave,
> Be every harsher thought suppress'd,
> And sacred be the last long rest.
> *Here*, where the end of earthly things
> Lays heroes, patriots, bards, and kings;
> Where stiff the hand and still the tongue
> Of those who fought, and spoke, and sung,
> If ever from an English heart,
> O, *here* let prejudice depart."

Darwin's modesty was as surprising as his power of investigation. Of this, the writer has a striking proof in a letter now before him, which accompanied a presentation copy of the work already referred to, in which he writes: "I should have modified several passages in my book on Expression if I had had the advantage of reading your work before my publication. I always felt, and said so a year ago to Professor Donders, that I have not sufficient knowledge of

physiology to treat my subject in a proper way." It would have been unfortunate, indeed, had this false estimate of his own knowledge prevented the production of this original and suggestive work. It is worth while to give, in this connection, Darwin's own statement of his relation to Herbert Spencer, as contained in this work. "Mr. Herbert Spencer, in treating of the Feelings in his 'Principles of Psychology' (1855), makes the following remarks:—

'Fear, when strong, expresses itself in cries, in efforts to hide or escape, in palpitations and tremblings; and these are just the manifestations that would accompany an actual experience of the evil feared. The destructive passions are shown in a general tension of the muscular system, in gnashing of the teeth and protrusion of the claws, in dilated eyes and nostrils, in growls; and these are weaker forms of the actions that accompany the killing of prey.'

"Here we have, as I believe, the true theory of a large number of expressions; but the chief interest and difficulty of the subject lies in following out the wonderfully complex results. . . . Mr Spencer has also published a valuable essay on the physiology of laughter, in which he insists on 'the general law that feeling, passing a certain pitch, habitually vents itself in bodily action,' and that 'an overflow of nerve force, undirected by any motive, will manifestly take first the most habitual routes; and if these do not suffice, will next overflow into the less habitual ones.' This law I believe to be of the highest importance in throwing light on our subject. . . . I may state, in order that I may not be accused of trespassing on Mr. Spencer's domain, that I announced in my 'Descent of Man' that I had then written a part of the present volume; my first MS. notes on the subject of expression bear the date of the year 1838" (p. 10)

It may not be amiss to recall here what were Mr. Darwin's conclusions on the expression of the emotions. He endeavoured to explain the origin and development of the expressive actions of man and animals by three great principles: first, that movements which are serviceable in gratifying some desire, or relieving some sensation, if often repeated, become so habitual that they are performed, whether serviceable or not, whenever the same desire or sensation is felt, even in a weak degree; secondly, that the habit of voluntarily performing opposite movements under opposite impulses has become firmly established in men by life-long practice, so that if from this first principle of serviceable associated

habits, certain acts have been performed under a certain frame of mind, there will be a powerful tendency to perform opposite acts, whether serviceable or not, from an opposite frame of mind; and thirdly, that from the constitution of the nervous system, quite independently of volition, and to some extent by habit, there is a direct action of the sensorium on the muscles.

Darwin grants that some effects due to the excitement of the nervous system do not follow the track rendered habitual by previous volition, and cannot at present be explained—such as the blanching of the hair from terror, or the tremors and sweating from fear—but he thought that as so many actions admit of explanation by the three principles laid down, we may hope hereafter to see all explained by these or closely analogous principles.

We all know that with Darwin these investigations confirmed the hypothesis that man is derived from a lower animal, and the creed that all the races of men had a common human origin, in other words, the old doctrine of the specific unity of mankind.

A remarkable evidence of the widespread sentiment of esteem for Darwin, and the breaking down of prejudice, is afforded by the fact that in the list of names supporting the memorial to Darwin, of which a circular has been issued by the Royal Society, appears the name of the Archbishop of Canterbury.

Of great interest, also, is the tribute to his memory by M. de Quatrefages, who, as is well known, did not share his views. The President of the French Institute having requested him to discourse on the scientific works of Darwin before that body, said, among other things:—

I have freely criticised his doctrines which are so popular; but I have always and loudly rendered justice to him as a man and a savant. The Academy knows that from the first to the last candidature of our regretted Correspondent, neither my vote nor my speech has been wanting in his favour. Urged by our President, I cannot keep silence to-day. I proceed, therefore, to summarise in as few words as possible the general impression left upon me by his career, which has few parallels in the annals of science.

There were two men in Charles Darwin: a naturalist, an observer, an experimenter (when necessary), and a theorist. The naturalist is exact, sagacious, and patient; the theorist is original and penetrating, often just, often too bold. It is this hardihood which leads Darwin into paths where many less adventurous savants cannot

follow him. But ought we on that account to forget that, before losing his way, and in the midst of even his most imprudent excursions, he had discovered and continually opened out some new road along which the most circumspect of men now follow him? Darwin is never a specialist. To judge his work, it is necessary to be a geologist, botanist, as much as a zoologist. . . . Our illustrious *confrère*, M. de Candolle, has never concealed his admiration for the English savant; and in a letter to me, he says, with his well-known modesty, "It is not me, but Darwin that the Academy should have named as its foreign associate." It is not however by all his work, so far as it brings to science results already acquired, which has procured for Darwin his immense reputation and popularity. It is his theory of the origin of species which has made known to the whole world, ignorant as well as learned, the name of the illustrious Englishman. It is because this theory seemed to respond to one of the warmest, and I do not hesitate to say one of the noblest, aspirations of the human mind; it is because it appeared to explain the world of organic life, in the same way that mathematics, astronomy, geology, and physics have explained the world of inorganic bodies. What Darwin has attempted is to refer to the action of secondary causes only, the marvellous whole which botanists and zoologists study; he desired to make them understand genesis evolution, just as the astronomers and the geologists have taught us how our globe had birth, how its surface has become what we now behold it.

There is nothing but what is perfectly legitimate in this great effort of a great mind, and the conception of Darwin must have in it something serious as well as seductive, to have fascinated not only the crowd which decides on mere assumption, and too frequently according to its desires, but such men as Hooker, Huxley, &c.

It is, in short, the *point de départ* of Darwin which is impregnable. No one now would, I think, dream of denying what the English savant has said of the struggle of existence and natural selection. It is because, up to this point, his theory is based on the foundation of observation and experience. Beyond this, these two guides of modern science suddenly fail him. He who seeks to explain the origin of species, does not ask what it is necessary to understand by this word. I do not wish to inquire here what is the true idea which one ought to entertain of this fundamental group. But still it was necessary that Darwin, if he desired to discuss it, should have a precise idea of it. This is what he has failed to do, and hence he has fallen into vagueness, which has led him into error. It is like a traveller who, following a sure though arid road, should be beguiled into abandoning it by a mirage, and should lose himself in the open desert. But this traveller, although he has lost his way, may discover in the midst of the desert, rich oases whose existence he will reveal. Such has been the destiny of Darwin. It is precisely under the dominion of ideas, which I cannot accept, that he has undertaken and terminated some

of his most curious and important works, works of which he would certainly have never thought, had he followed a more regular road.

The enthusiastic disciples of Darwin affirm that he has explained everything in the organic world. Quite otherwise is the language of the master. No doubt he allows himself to be carried away too frequently by the *élan* of his thought. Very often, however, he preserves sufficient coolness to recognise the reasons and the facts which militate against him. Then he hastens to signalise them with a loyalty which is almost chivalrous. . . .

I cannot in these pages, any more than in my other writings, keep silence as to that which separates me from Darwin. As always, I have done so with regret. In return, I have from the bottom of my heart endeavoured to render him a last and just homage.

In so doing, I think I am in accord with the general feeling of the Academy. It did not at first accept the candidature of Darwin as Correspondent. Some of the English savants have reproached it on this account. That is wrong. For such, the merit of Darwin lay in his theory. By their hesitation in the first instance, the Academy has indicated that it could not be a party to this judgment. Then, on welcoming the author of the book "On the Origin of Species," it has known how to recognise in it all that is important and durable in the complex work of the illustrious naturalist, and to render justice to his true merits. . . .

Now, Darwin is dead, and certainly no one here has grudged sincere and cordial regrets to this true and great savant, who has chosen to pass his whole life consecrated solely to study and meditation in a modest retreat, free from honours which he could have so easily procured, and which have sought him when he can no longer forbid them.

Case of Guiteau.

The assassination of the President of the United States, General James Abram Garfield, on the 2nd of July, 1881, a few months only after his entry upon office, must ever stand out as a prominent event in American history. The long period of eighty days that elapsed between the date upon which the assassin's bullets were fired and the date at which death closed the scene, and released the victim from his sufferings, gave time for creating the most intense interest and sympathy throughout the civilized world, and for producing an indelible impression upon the memory. The interest thus awakened was not suffered to flag, but was kept alive by the unprecedented nature of the trial of the assassin, Charles Julius Guiteau.

The trial commenced on the 16th of November, and lasted until the 26th of January, the ten weeks of its duration being occupied almost entirely with the question of the mental condition of the assassin, and no less than twenty-four medical witnesses being examined upon this subject, either for the prosecution or for the defence.

The minutes of the trial are stated to extend to two thousand pages, octavo, and we doubt not that when accessible they will well repay careful study; but they have not at present reached us. Dr. John Gray, of Utica, has, however, in spite of the murderous assault committed upon him in March, which we notice in another place, given a summary of the principal points, in an article in the recent number of the "American Journal of Insanity;" and to that article we must refer those of our readers who desire to obtain an adequate knowledge of the case. We would also refer to two interesting articles, in favour of Guiteau's insanity, which have appeared in the "Boston Medical and Surgical Journal," one on the 16th of February by Dr. Charles Folsom, and the other on the 30th of March by Dr. Walter Channing.

When it is borne in mind that the article by Dr. Gray extends to a hundred and forty-six pages, and that it was written with the intention of introducing no unnecessary matter, and of being as brief as the circumstances would permit, it will be evident that a short review, such as the space at our disposal renders possible, must necessarily omit entirely many points of the case of great psychological interest. As, then, it is impossible for us to attempt to traverse the whole of the ground occupied by Dr. Gray and Dr. Folsom and Dr. Channing, it may be as well to state at once that in our opinion the plea of insanity which was raised in this case was not sustained by the evidence.

The medical witnesses who testified in favour of the insanity of the accused were eight in number, namely, Dr. Kiernan, Dr. Nichol, Dr. Folsom, Dr. Godding, Dr. McBride, Dr. Channing, Dr. Fisher, and Dr. Spitzka; but, although all these medical gentlemen had been subpœned by the defence, had examined the prisoner, some of them several times, and had listened to the testimony and observed the conduct of the prisoner, only one of them, the last-mentioned, was asked his opinion as to the sanity or insanity of the prisoner at the time of the examination. To the other seven a hypothetical question was put, but no direct

questions were asked of them, as to their opinion respecting the prisoner's mental condition, founded upon their examination of him; and when the prosecuting counsel, in cross-examination, desired to put questions of this kind, it was ruled that such questions were inadmissible in cross-examination in consequence of their not having been put in the direct examination.

The hypothetical question, upon which the defence relied, was in these words :—

Q. Assume it to be a fact that there was a strong hereditary taint of insanity in the blood of the prisoner at the bar; also that at about the age of thirty-five years his mind was so much deranged that he was a fit subject to be sent to an insane asylum; also that at different times from that date during the next succeeding five years he manifested such decided symptoms of insanity, without simulation, that many different persons conversing with him, and observing his conduct, believed him to be insane; also that during the month of June, 1881, at about the expiration of the said term of five years, he honestly became dominated by the idea that he was inspired of God to remove by death the President of the United States; also that he acted upon what he believed to be such inspiration, and what he believed to be in accordance with the Divine Will, in preparation for and in the accomplishment of such a purpose; also that he committed the act of shooting the President under what he believed to be a Divine command which he was not at liberty to disobey, and which belief amounted to a conviction that controlled his conscience and overpowered his will as to that act, so that he could not resist the mental pressure upon him; also that immediately after the shooting he appeared calm, and as one relieved by the performance of a great duty; also that there was no other adequate motive for the act than the conviction that he was executing the Divine Will for the good of his country. Assuming all these propositions to be true, state whether, in your opinion, the prisoner was sane or insane at the time of shooting President Garfield.

It will be observed that the plea of insanity was based upon the assumption that all the propositions contained in the above hypothetical question were true; but this was an assumption which the evidence failed to sustain. With respect to one of the vital points of the question, whether the prisoner really believed himself inspired of God to commit his act, and that he was under a Divine command which overpowered his will, and which he was not at liberty to disobey, we find Dr. Channing, who was one of the

witnesses for the defence, writing, in the article already alluded to—

> It was unfortunate that Guiteau's counsel laid such stress on inspiration, as its existence as a delusion could be easily disproved, and thus the most important element of insanity of the defence could be shattered.

It was shown that Guiteau had no auditory hallucinations, and that the so-called inspiration did not come to him in any of the ordinary ways in which insane delusions usually arise. His readiness to ascribe his acts to inspiration dated from the time of his residence in the Oneida Community, from 1860 to 1865. What may be the precise tenets held by that community we do not know; but it seems that for one thing marriage is regarded amongst the community as an unnecessary institution, and that the members may live as they please, provided they feel that they are inspired, and provided also, which seems to be an important proviso, that they have the consent of the leader, Noyes. Guiteau entered this community at the age of 19, and Dr. Channing writes thus of him:—

> At this time he was a quick-witted, sensitive, nervous, half-educated, vacillating, over-religious boy, knowing but little of practical life, and anxious to do great things. At the community he absorbed everything that was bad, but found nothing to develop good. There he learned to believe that he had found the kingdom of heaven on earth, and was taught that indulgence of the passions, if done with the sanction of the leader, Noyes, would be approved by God. Any education more calculated to destroy a correct moral sense, and respect for society, it is hard to imagine.

With this we entirely agree, but we are not disposed to admit that a man whose correct moral sense and whose respect for society have been destroyed by an education of this kind is, on this account, to be regarded as insane, or held irresponsible for his criminal acts, by the society which he has ceased to respect.

Medical evidence of a very positive kind was submitted by the prosecution in disproof of the prisoner's insanity. Sixteen medical witnesses were called by the prosecution, of whom fifteen had personally examined the prisoner, whilst the remaining one, Dr. Fordyce Barker, gave scientific testimony with reference to the general question of heredity. The fifteen physicians who testified to having personally

examined the prisoner and to having formed an opinion, founded upon personal examination, as well as upon a consideration of all the circumstances of the case, to the effect that the prisoner was sane and responsible before the law, were Dr. Noble Young, Dr. Loring, Dr. Allan McLane Hamilton, Dr. Worcester, Dr. Theodore Dimon, Dr. Selden Talcote, Dr. Stearns, Dr. Strong, Dr. Shew, Dr. Everts, Dr. A. E. Macdonald, Dr. Randolph Barksdale, Dr. Callender, Dr. Kempster, and, lastly, Dr. John Gray.

The evidence of these gentlemen clearly disproved the assumption contained in the hypothetical question as to Divine inspiration as an insane delusion.

Dr. Gray, in his evidence, stated that he asked the prisoner, "How did you come to think of insanity as a defence, and when did it occur to you?" and that the prisoner's reply was, "I knew, from the time I conceived the act, if I could establish the fact before a jury that I believed the killing was an inspired act, I could not be held to responsibility before the law." Dr. Gray asked, "How can this appear in evidence as a fact?" The prisoner replied, "I see that, but I think I can answer it. Suppose you take it down that if the jury accepts this as my belief, and the jury believes, as I believe, that the removal was an inspired act, and, therefore, not my own act, they are bound to acquit me on the ground of insanity. I have looked over this field carefully."

Dr. Gray, at a later stage of his evidence, testified to having satisfied himself that this inspiration which the prisoner claimed, did not come to him until after he had fully made up his mind to do the act, and that, in fact, he committed the act with the intention of pleading inspiration as a proof of insanity, in case of need, in his defence. Dr. Gray further gave evidence as to the mode in which the notion of inspiration had been introduced into the mind of the prisoner during his residence with the Oneida Community.

We do not propose to discuss, seriatim, each point of the hypothetical question propounded by the defence, for the reasons which we have already assigned, and also, further, because, if the paragraphs relating to inspiration as an insane delusion are omitted, the remaining assumptions would not, in themselves, be sufficient to support the plea of insanity, even if, as was not the case, they were all made good.

The general tenor of Dr. Gray's evidence goes to show that, in his opinion, disappointment at not obtaining office

under General Garfield's administration was largely concerned as a motive for the commission of the act. It was also established by the prosecution that when the prisoner was, in the first instance, charged with his crime, he justified it as a patriotic act, and asserted that it was a political necessity, and that the President was guilty of the blackest ingratitude towards the men who elected him; also that he said that the prominent men of the Republican party, who would be benefited by his crime, would protect him from the consequences of his act; and that when he learned that these men had expressed their abhorrence of his crime he was struck dumb, and after collecting himself exclaimed, "What does it mean? I would have staked my life they would defend me;" and it was not until after finding that the "stalwarts" repudiated his act, that he justified it on the ground of inspiration.

It is right to point out that the prosecuting counsel did not act without having first obtained medical assistance and advice.

The District Attorney stated that—

> Before the prisoner was placed on his trial, the question of his sanity being a question that had been discussed, Dr. Gray, who, from all the representations that we were able to obtain, was probably the best authority on the subject of insanity in this country, came here, and the prosecution were willing to trust the question as to whether the man should be put on trial to his decision. I want him to state that such was his instruction, and that he was left perfectly untrammelled with regard to his judgment.

A medical man upon whom instructions of this nature are laid is placed in a position of the gravest responsibility. He is required to satisfy himself as to the conclusion to which the circumstances of the case, taken as a whole, point. It is not sufficient for him to take up one set of circumstances, pointing in one direction, without also taking into consideration other circumstances of an opposite character. He is not an advocate for either one side or the other, but is an *amicus curiæ*.

We must offer our sincere congratulations to Dr. Gray upon the manner in which he has steered his way through the intricacies of this difficult case, and arrived at what we have already stated we believe to be the conclusion which is, all circumstances considered, in accordance with justice.

There is very much of interest in the article by Dr.

Folsom, to which we have referred; but we think that the admissions which Dr. Folsom, with great fairness in argument, feels himself compelled to make, only tend to confirm the opinion we have expressed. The second of a series of conclusions given by Dr. Folsom is to this effect:—

> His shooting the President was, to a certain extent, the logical result of bad training, character somewhat unscrupulous, enormous self-conceit, self-will, disappointment in not getting office, cowardice, extreme political partizanship, delusions or deceit regarding religion, desperation of poverty, expectation of personal gain, love of notoriety, and hope of praise from the "stalwarts." The fourth of Dr. Folsom's conclusions is, "He supposed he should escape punishment," and the fifth, "Certainty of punishment would have restrained him from the act."

The most interesting point, to our mind, raised by Dr. Folsom is as to whether there may not have been in Guiteau's life several attacks similar to subacute mania. Dr. Folsom thinks the evidence points to such attacks of mild mania, resulting in considerable dementia, or to periods of maniacal excitement so common in the congenital or degenerative types of insanity, and that, although Guiteau's mental condition at the time of the trial indicated responsibility, yet that at the time of the murder he might have been suffering from subacute mania with incoherence of ideas. Dr. Folsom also raises the interesting point whether Guiteau is a man who is on the road towards becoming insane, and who, if he were to live another ten years or so, would exhibit unmistakable signs of mental derangement. It must always be extremely difficult to prophesy upon a matter of this sort. It will be remembered by our readers that when Orsini attempted to take the life of the Emperor Louis Napoleon, and killed several people in the attempt, a supposed accomplice, Simon Bernard, was put upon his trial in England, but was acquitted, owing to the skill of his counsel, on the ground of insufficient evidence. Now this man Bernard died insane within four years of his trial. The question arises, supposing the proof of complicity in the plot had not broken down, what would have been the status, with regard to responsibility, of the accused, who at that time exhibited some of the premonitory symptoms of the general paralysis of which he died? Nobody certainly at the time suggested that he was mentally irresponsible.

As the summing up of the judge in the case of Guiteau

is not given in Dr. Gray's summary, we think it will interest our readers. The most important part of it will be found in "Notes and News." It is a careful statement of the law of insanity in America at the present time.

We have in these observations confined ourselves to the question of Guiteau's responsibility. But in this, as in many other criminal cases, we cannot but feel that the character in these cases offers to the psychologist a rich field for study. We are sadly ignorant yet of the various types of human character, especially of those abnormal ones which border on the region of well-recognised mental aberration. When understood, it will be seen to what precise category we are to refer such moral or immoral monstrosities as Guiteau. No physiognomist can look at the outlines of face and head depicted in the remarkable photographs which accompany Dr. Folsom's paper without recognising something extraordinary. They must mean *something*. We should lose the psychological lesson which such peculiar developments are calculated to teach, as contributing to the right comprehension of mental characteristics, were we to throw them aside when we have satisfied ourselves that they cannot constitute a sufficient plea for acquittal on the ground of insanity in criminal cases. They still remain specimens of human nature which are of great interest, and ought to be pressed like rare plants in our *collectanea psychologica*.

Case of Lamson.

In proportion as we estimate the importance of the plea of insanity in criminal cases, as in that of Maclean, ought we to be jealous of its abuse, and recognise the danger of the application of a just principle to shield the guilty and responsible from merited punishment. In our opinion, it would have been a serious miscarriage of justice had the almost unparalleled efforts made on behalf of Lamson proved successful. We have no intention of reproducing the alleged proofs of his insanity or morphia-mania, because it is impossible to distinguish between reliable and unreliable evidence, produced with surprising prolificness, and under conditions eminently favourable to false affidavits and statements more or less manufactured for the occasion, on demand. Even granting that a considerable number of these were true, the evidence would not relieve a man so circumstanced from responsibility. It is not surprising,

therefore, that when all hope was over, and a clever lawyer had played his last card, the wretched criminal, a deplorable disgrace to our profession, should have not only confessed the crime of which he had, appealing solemnly to Heaven, declared when sentence was pronounced that he was innocent, but acknowledged that he merited the punishment which he was about to undergo. The Home Secretary in this case, as in that of Lefroy, acted in a manner which has commended itself not only to the judgment of mental physicians, but the common-sense of mankind.

Case of Maclean.

The case of Roderick Maclean has given rise to no psychological immoralities, because it was one upon which neither self-interest nor love of notoriety could hope to gain a hearing. The indications of mental disease were from the first transparently clear. Letters written so far back as May, 1880, showed the disordered state of his mind at that time. They are worthy of preservation in this Journal, and will be found with other matter in "Notes and News."

The motives he assigned for shooting at the Queen are probably true, and if so, it is clear that he was not acting under any homicidal impulse pure and simple. The day after the attempt he wrote thus :—"I am not guilty of the charge of shooting with the intention of causing actual bodily harm. My object was, by frightening her Majesty the Queen, to alarm the public, with the result of having my grievances respected, viz., such as the pecuniary straits in which I have been situated." His grievances are referred to in the same way in another letter written on the day of the attempted assassination. "I should not have done this crime had you, as you should have done, allowed the 10s. per week, instead of offering the insultingly small sum of 6s. per week, and expecting me to live on it." His delusions of persecution, combined with some mental weakness, amply accounted for the act he committed without reference to any homicidal impulse. He is one of the class of dangerous lunatics at large who ought in some way to be under supervision—that element of danger in our midst to which the Earl of Shaftesbury referred in such strong terms in his evidence before the Select Committee of 1877.

PART II.—REVIEWS.

Epilepsy and other Convulsive Diseases. By W. R. Gowers, M.D., F.R.C.P. London: J. and A. Churchill.

Much as has been written on the subject of epilepsy, there is probably no subject in the whole range of medical science on which so much has hitherto been left unsaid. For this there are various reasons. The chief one, no doubt, is that the phenomena of the disease are so complex, so difficult to unravel, that medical workers are discouraged from devoting their attention to them. Then again, a large proportion of these phenomena are subjective, and can only be ascertained from the confused accounts of the patients themselves. Epileptic patients are, as a rule, below the average of intelligence, and none but those who have had a considerable experience in this direction can judge of the amount of patience and tact required to ascertain from them the facts of their illness.

When by dint of patience and care the facts have been obtained, and when these facts have been duly arranged and tabulated, there is still left the most difficult task of all, to explain what they mean, to discover the pathological basis upon which they rest, and of which they are the outward signs. In attempting this explanation we are brought face to face with some of the most difficult problems of nervous physiology; indeed, we may go further, and say that it is chiefly through the study of the phenomena of epilepsy that we may hope to get the clue to the solution of many of these problems. Thus, then, it will be evident that to do original work in this field, it is necessary to combine the power of patient and accurate observation of facts with reasoning power of a high order. The well-deserved reputation which Dr. Gowers has earned for himself in both of these directions prepares us for a thoroughly scientific treatment of this subject, the most difficult on which he has hitherto written. His facts are drawn from notes on 1,450 cases of epilepsy that have been under his personal observation, a number fully sufficient to afford examples of all the essential features of the disease.

In dealing with the symptoms of epilepsy, Dr. Gowers insists upon the necessity of carefully studying the initial

phenomena of fits, where any such can be said to exist; the phenomena, that is to say, which occur before the fit is fully developed, and which constitute, in the majority of cases in which they occur, what is known as the "warning." Hughlings-Jackson was the first to point out the importance of these initial symptoms in the investigation of epilepsy; an importance due to the fact that we have here phenomena of a comparatively simple order, phenomena, therefore, which offer a more useful field for analysis than the aggregation of complex symptoms which make up the fully developed fit.

Without calling in question the great value and importance of this method of investigation, we wish to point out that the great cardinal fact in epilepsy which stands in the front, far before all other in importance, can be learnt, and perhaps best learnt, from the observation of an ordinary convulsive epileptic attack without warning of any sort. This fact is the irregular and abnormal liberation, in the nervous system, of force hitherto stored up in a "latent" form. This is the characteristic in epilepsy which serves as the keystone to a knowledge of the disease, and to which all other questions are subservient and secondary. These latter may be roughly summed up as follows:—(1) Where is the force liberated? (2) What determines its liberation? (3) What is the nature of the conversion from "latent" force to "active" force? (4) What constitutes the difference between a healthy conversion of force and a conversion such as is seen in an epileptic fit? (5) What are the effects produced upon the nervous system by this abnormal conversion? The study of warnings has chiefly been of service in clearing up the first of these points. This is no mean service, for it has enabled us to sweep away the tissue of old conceits which had gradually grown round the subject amidst the darkness of our ignorance. The phenomena of warnings have also taught us, as Dr. Gowers, quoting Hughlings-Jackson, says, "something of the form of cerebral action which disease modifies rather than subverts." One of the most interesting observations in this connection is the way in which a disturbance once started tends to spread from the original plot to adjacent areas, and from these to others, until perhaps the whole nervous system comes under its influence. This phenomenon can be watched in connection with what may be called "travelling warnings," where one part of the body after another, or one function after another, becomes involved.

Leaving on one side for a moment the important question

of the *nature* of the liberation of force which takes place, or, in other words, of the "nerve discharge," let us speak of the *seat* of the discharge. The old notion of a single small "convulsive centre" in the medulla oblongata has been more recently revived by Nothnagel, who bases his views on a careful series of experiments, in which he proves the existence of a centre in the medulla, irritation of which produces convulsion. Dr. Gowers, however, is little inclined to believe in the influence of this centre in epilepsy, and studying the question from the clinical side, he argues that "the convulsions in idiopathic epilepsy may probably be due to the discharge of any of the grey matter of the encephalon which subserves sensori-motor processes." He bases his argument chiefly upon the observation of warnings. These may be of the most varied description, from a twitching or tingling in one finger up to derangement of special sense, such as balls of fire before the eyes, or ringing of bells in the ears, and still higher to elaborate mental states. Fits beginning so variously must surely be due to nerve discharges having a corresponding variety of situation. Having gone so far as he has in widening the area of grey matter which, by its disturbance, may give rise to fits, we wonder that Dr. Gowers has not gone further, and admitted the probability that irregular discharge of grey matter may take place in any position where grey matter is found. Why should it be confined to "those parts of the grey matter of the encephalon which subserve sensori-motor processes?" Why, again, is it "hardly necessary to remark that the spinal cord acts only as a conductor, and that the overacting grey matter is to be sought for above it?" The spinal cord contains considerable masses of grey matter, which matter, we know, is capable of becoming exceedingly irritable. May it not also be capable of taking on irregular and inordinate discharging action? That the spinal grey matter can do so, and does so under certain conditions, is, we think, demonstrable by a careful analysis of the course of an attack of angina pectoris, where a nerve discharge, beginning somewhere in the nervous apparatus of the heart, extends to one arm or both arms, or to almost any part of the body. The only question is whether a discharge beginning in the spinal cord can extend up to the brain.

Dr. Gowers admits the possibility of its doing so from the medulla oblongata. Why not therefore from the cord? We lay stress upon this point, because we believe the real answer

to the question as to the seat of the discharge is that an abnormal discharge may take place wherever there is grey matter, and, having once taken place, may set up a similar discharge in adjacent cells, and so on in ever-widening circles of influence. We see no reason for supposing that there is any limitation in the area of possible disturbance, and the phenomena of the disease are far too multiple and complex to justify our placing artificial barriers in the way of interpretation. Dr. Gowers bases his reasoning on the nature of the warnings ; but it must be remembered that a warning is only met with in one half the cases of epilepsy, according to the statistics given by him; that the warnings are exceedingly varied in character ; and that, in many cases, they are difficult of interpretation.

The great lesson we have hitherto learnt from them is that we must greatly widen our views as to the seat of the lesion, and we must be on our guard against using their teaching to place limits which, though far less restricted than have hitherto existed, will probably still be too narrow. We believe, as we before said, that unless very definite proofs to the contrary are brought forward, we are justified in assuming that a disturbance may begin in grey matter in any part of the cerebro-spinal, and possibly even of the sympathetic system.

We will next ask, What is the nature of the discharge? or, to use Dr. Gowers' words—"Can we form any opinion as to the character of the alteration in the grey matter which permits its sudden explosive discharge?" He uses the illustrations of a Leyden jar and of a bent spring to give some idea of the kind of action which takes place. We doubt, however, whether either of these illustrations is applicable, except for purposes of the very roughest analogy, for it is highly improbable that either of them represents, even remotely, what actually takes place. Dr. Gowers lays stress upon the recognition of a power of resistance to action in nerve cells. He says that of the nature of the resistance we can probably form no idea, and he adds:—"The fact is, probably, only the highest instance of a series of relations which runs through the whole of organic nature. The formation of every organic compound, for instance, consists, so to speak, in the bending back of the spring of chemical affinity in a process by which force is held latent by some unknown resistance." We have little doubt but that this sentence contains the germ, necessarily vaguely depicted, of the ex-

planation of the phenomenon of nerve discharge. But here again we would ask, Why place limitations? Why say organic nature and organic compounds? Does not the same thing apply to all nature, inorganic as well as organic, and to every chemical compound that exists? Nay, more, to every element also? What is this force but the power by which two atoms of oxygen are bound together to form the ordinary molecule, or three atoms to form ozone? Now comes the knotty question: Does it take more force to make a complex molecule than to make a series of little simple molecules containing the same aggregate number of atoms? To take an example, Does it require more force to hold together the atoms forming a molecule of one of the hydrocarbons of which coal is composed, than to hold together the same atoms of carbon and hydrogen when combined with oxygen to form carbonic acid and water? This is the gist of the whole question, and although it is difficult to bring forward scientific proof, we believe that everything goes to show that more force *is* required, possibly a thousand-fold more force. What is the meaning, otherwise, of the talk about the heat of the sun stored up in coal? Whence the necessity in trees for long years of exposure to sun heat, unless it be to build up elaborate molecules from simple ones by aid of force? Think again of the enormous quantity of force liberated when coal is burnt, sufficient not only to change the material itself from a hard solid to a gas, but with enough to spare to do the hardest mechanical work we can impose upon it. Can we believe that all this force comes from the impact of the atoms of oxygen against those of carbon and hydrogen in the process of combustion, as is asserted by some physicists? Is not the real explanation that the force employed in binding together the atoms into the complex molecules of which the coal is composed, is set free when these atoms form simple molecules only, and is utilized partly to supply the latent heat requisite for the gaseous form the new products assume, and partly becomes evident as actual heat?

But the molecules of which coal is composed are simple compared with the molecules of animal albumen, even in its simpler forms; and in all probability there are many forms of albuminous compounds in the animal kingdom, and even in the human body, of which those entering into grey nerve tissue are the most complex. The doctrine of evolution would indeed lead us to suspect that grey nerve tissue is

chemically the most complex matter in the whole of nature. When, therefore, we see the enormous quantities of force used up in the composition of the comparatively simple molecules of coal, we shall be prepared to find that proportionately a much larger quantity of force is stored up in the same way in nerve cells.

Now as regards the liberation of this force. As with coal, force will be liberated by nerve tissue whenever any of the molecules of which it is composed break down from their state of extreme complexity, and form compounds of somewhat less complexity. The tendency to decomposition of molecules depends upon several conditions, but *cæteris paribus* a complex molecule will break down more easily than a simple one. Indeed, this fact is at the bottom of one of the great distinctions between inorganic and organic chemical substances, organic substances being more or less unstable according as they are more or less elaborately built up, whilst inorganic substances are, for the most part, extremely stable. *A priori* grounds would therefore lead us to expect that the exceedingly complex nerve tissues would decompose with extreme ease with a corresponding liberation of force. The storage of force in the brain, therefore, would thus seem to be only an example of the storage of force in chemical molecules which obtains through the whole of nature, organic and inorganic, and the liberation of force in the brain corresponds strictly to the liberation of force in any other chemical decomposition. The whole series of phenomena are nothing more than an example, on an elaborate scale, of some of the most familiar facts of every day life. The resistance to discharge of which Dr. Gowers speaks is therefore nothing more than the resistance which all chemical bodies of every kind offer to a decomposing force. We are aware that this does not make it any the more clear what is the nature of this binding force. Its nature is, for the present, probably inexplicable, and must be looked upon simply as one of the fundamental properties of matter; our only object is to show that this nerve resistance is not a special entity standing out by itself, but like the other phenomena of which we have been speaking, is no more than an example of a familiar fact of nature, for the explanation of which we must go back to first principles.

Let us now speak of the conditions under which the nerve decomposition or discharge takes place. In normal conditions the force holding together a nerve molecule is sufficient

to enable it to resist the natural tendency to decomposition, but a comparatively slight stimulus in the shape of force entering the cell of which the molecule forms part is sufficient to upset the delicate molecular arrangement, whether this force is derived from a decomposition going on in another cell with which it is connected, or whether it reaches the cell from the outside in the form of light, sound, or touch. The point of greatest importance is that the molecular decomposition shall be orderly, shall correspond strictly to the amount of stimulus received, and shall stop as soon as the stimulus has ceased.

An important point to bear in mind is this, that the decomposition is probably not due to oxidation, and is possibly not even accompanied by oxidation. Dr. Gowers approvingly quotes from Dr. Handfield Jones a paragraph in which the following sentence occurs :—"Now the peculiarity of nerve cells is that they possess these two qualities : they prepare material which by undergoing oxidation, or in some other way, generates force, and yet they can prevent this material from so acting, although blood is circulating all round it charged with oxygen." Here Dr. Jones, by assuming that it is the oxygen of the blood which produces the decomposition, finds himself under the necessity of assigning a kind of homuncular function to the nerve cell, by which it can decide when the oxygen shall influence the nerve matter and when it shall not. But chemistry tells us that decompositions take place not only under the influence of oxygen, but under the influence of simple immaterial force brought to bear upon the molecules. Take, for example, the effect of heat upon wood in a closed retort. The woody tissue splits up into numerous compounds, all of them differing profoundly from any of those present before, and all of them of simpler chemical constitution than the original material. But the best example of decomposition under the influence of immaterial force is afforded by the phenomena of electrolysis, for by this means decompositions are effected, not only of elaborate organic chemical compounds, but of some of the simplest compounds in nature, water to wit. If we assume as probable that the breaking down of the elaborate molecules of grey nerve matter is of this description, and takes place under the influence of immaterial force arriving through the connecting nerve-fibres of the cell of which the molecules form part, we at once do away with the necessity for any homuncular action on the part of the cell, and the

"resistance," of which Dr. Gowers makes so much, proves, as we have before said, to be no other than the resistance which any chemical compound offers to decomposition, and without which it would manifestly be impossible for it to exist.

Epilepsy viewed in the light of what we have been saying, means the decomposition of grey matter either under the influence of a diminished stimulus, or its disorderly discharge under an ordinary stimulus, a discharge out of proportion to the amount of stimulus, or not stopping after the influence of the stimulus is removed.

Under what circumstances is the abnormal decomposition likely to take place? If the supposition be correct that the normal phenomena of nerve cells are nothing more than the phenomena seen in connection with all chemical compounds, greatly intensified in accordance with the far higher molecular elaboration of grey nerve matter, then we may hope to be able to find a trustworthy explanation for this abnormal decomposition, and we believe that we need not go far to find it.

In speaking of the conditions upon which the readiness of molecules to decompose depends, we said that, *cæteris paribus*, it will vary in proportion to the complexity of the molecules, but it is evident that the complexity of the molecule is by no means the only important factor. No proof is required to show that certain simple compounds are far more easily decomposed than many much more complex compounds. As an extreme instance compare a fulminating compound with a woody substance. The fulminate of silver, which decomposes under the influence of a moderately hard knock, contains only eight atoms to the molecule; cellulose, one of the compounds of wood, contains 63 atoms to the molecule. Thus then it is obvious that the tendency to decomposition depends upon other conditions besides complexity of molecule. One of these conditions is doubtless the method of arrangement of the atoms, which may vary even in molecules where the atoms are identical in number and in kind, giving rise to compounds having chemical properties differing widely from one another, as in the case of the isomerides. Another important condition is probably the arrangement of the force which we have given reasons for believing is locked up in the molecule. It is conceivable, nay, probable, that great variations may exist in the method of arrangement of this force—that in some cases it is evenly

distributed, evenly balanced, and that in others it is irregularly distributed, giving rise to a condition approaching in character to that known by physicists as unstable equilibrium.

We have already said that complex molecules from their very complexity are more easily decomposable than simpler molecules. It is to be expected that in complex molecules we are more likely to meet with conditions of atom arrangement and force arrangement, in forms favouring decomposition, than we should do in simpler molecules. The surprising thing to any one who has paid attention to the subject is that it should have been possible to build up such elaborate molecules as those of grey nerve tissue and still to retain so considerable a resistance to decomposition as we find in healthy nerve cells. This is the topmost stone in molecular development, as man is the topmost stone in animal development. But just as in man, nature rarely succeeds in reaching her greatest possible perfection, so we may believe that with her most complex molecules, nature often fails to attain the best possible arrangement of matter and force. The molecules she does succeed in making will often be molecules of somewhat less or somewhat greater complexity than they should be. Moreover, if isomerism is so common among comparatively simple compounds, how much more likely is it to occur among complex compounds containing hundreds of atoms theoretically capable of being arranged in tens of thousands of different ways. Thus then it is probable that the nerve molecules will present many variations both in the number of atoms and in their arrangement, and these variations will doubtless be accompanied by corresponding variations in the amount and in the distribution of force. Provided that these variations are confined within certain limits, and possibly also that they take place in certain directions, they may be unaccompanied by any great modification in the tendency of the molecules to decomposition. It is probable, however, that most variations lead to some deterioration of nerve stability. How constantly physicians have to deal with symptoms of unstable nerve matter short of the extreme degree which gives rise to convulsions! How comparatively rare it is to meet with people presenting the highest type of "mens sana in corpore sano!" How likely that certain of these variations of molecular structure shall lead to the production of compounds having explosive tendencies! The difference in composition between the mole-

cule with tendencies to orderly decomposition and the molecule with tendencies to explosive decomposition in nerve tissue need not be great. Consider how intimately related is the molecule of silver fulminate with explosive tendencies of the intensest description, to silver cyanate with no such tendencies.*

There is one more point in connection with the nervous phenomena of epilepsy on which we should like to make a few remarks. This is the question of nervous "inhibition." Dr. Gowers lays great stress upon the existence of this property of nerve cells. By it he means the power which he supposes one nerve cell to possess to prevent the "discharge" of other nerve cells—an active control exercised by certain cells over other cells. By it he explains the very interesting "negative" symptoms frequently met with in fits; for instance, the occurrence of loss of sight, deafness, and unilateral or bilateral muscular weakness, instead of subjective sensations of light, sound, and of real muscular spasm. These negative phenomena may either precede or may follow the fully developed fit, and in the case of muscular weakness it bears no relation to the intensity of the spasm where such has occurred. Dr. Gowers explains these phenomena by the supposition that an irregular discharge taking place in certain cells leads, not to a "discharge" in other cells with which they are connected, but to the exact opposite, viz., an increase in their resistance to discharge, or, as we should say, to an increased tendency to resist decomposition.

Taking the view that we have been endeavouring to set forth, that the phenomena of grey nerve matter can be explained, and ought to be explained, by reference to molecular physics as they exist throughout nature, we confess that we find it difficult to understand the existence of an inhibitory influence of this kind. Of course we are all familiar with the inhibition of the heart and of the respiratory centre seen in certain experiments upon the pneurogastric nerve, but we believe that this is not strictly analogous with the power invoked by Dr. Gowers. In all these cases of experimental inhibition it is reflex actions that are inhibited. In them we see a complete nervous apparatus at work. An

* We are here taking for granted the truth of the theory which Dr. Gowers borrows from Hughlings-Jackson, that an epileptic discharge differs from a healthy discharge in being "explosive." We shall, however, return to this question later on.

outside stimulus of a definite kind is conducted by a definite route to a nerve centre which under its influence liberates force of definite amount, which passes in its turn down a definite route and sets up muscular action. The inhibition consists in this, that force of a totally different description, and probably very different in quantity, is conducted by a route differing possibly *in toto* from that taken by the usual stimulus, with the result that the usual stimulus is unable to produce its usual effect. There are several possible ways in which this result may be explained without invoking any special inhibitory force, or indeed any property in the nerve tissue incompatible with molecular physics.

But in the phenomena attributed by Dr. Gowers to "inhibition" the case is different. In these instances there is no question of reflex action. We understand him to say that where one centre situated lower in the cerebro-spinal axis is connected with another centre higher in the scale, that this higher centre can act on the lower in one of two ways: (1) it can diminish the resistance to "discharge," and hence lead to the liberation of force; or (2) it can increase the resistance to discharge, and thus prevent the liberation of force under ordinary stimuli.

Now we need scarcely repeat that our method of stating the first of these two propositions would be this: that the molecules in the higher centre, being decomposed under the influence of a stimulus of some kind, liberate force, which, being conducted to the lower centre, acts upon its molecules, causing their decomposition, and a consequent liberation of force by them—a statement which, we believe, is strictly in accord with the known behaviour of molecules elsewhere. As to the second proposition, we do not believe that it is capable of being stated in any way consonant with the behaviour of molecules elsewhere; we believe, on the contrary, that it is totally opposed to all that we know of the behaviour of molecules. We know of no instance where the *sudden* exposure of molecules to the action of force leads to a *sudden* increase in their resistance to decomposition without other change in their constitution. Indeed, it is inconceivable that a *sudden* increase of resistance to decomposition should take place without a change of constitution, which can only be conceived either as a change of isomerism or of decomposition. In the latter case force would certainly be liberated, and we should have symptoms of discharge and not of inhibition, and in the former it is extremely unlikely

that the change would give rise to purely negative symptoms.

We believe, therefore, that the explanation of the so-called phenomena of "inhibition" must be sought for in some other direction. The mechanism by which the centres directly governing movement or sensation, or special sense, are brought under the influence of the centres of mental appreciation of sensations, or for the voluntary initiation of motion is very elaborate, and but little understood. We believe that the real cause of these negative symptoms is an interruption in the working of this delicate mechanism, which is probably thrown out of gear by the effects of the explosion, but we doubt whether it will be possible to ascertain in greater detail the real nature of the change until we know more about this difficult problem in mental physiology.

The space at our disposal will not allow us to follow Dr. Gowers in his explanation of the phenomena of automatism, of co-ordinated convulsion, or the differences between epileptic and hysteroid attacks. Our object has been, if possible, to examine the basis upon which the whole framework of epileptic phenomena rests. Until this is more fully understood we believe it is of little use to attempt explanations of the more highly elaborated symptoms. We want to get rid of the Leyden jar and bent spring arguments, and more especially of everything approaching what we have called the "homuncular" theories, such as the restraining power of cells over one another. We believe that all nervous phenomena of every kind, *on their physical side*, will prove to be explicable by reference to the laws of molecular physics. We see no reason for believing that nerve molecules will behave otherwise than molecules elsewhere—in other words, that there are any special phenomena in connection with them for which the prototypes may not be found in the lower grades of nature. We feel sure, therefore, that the right way to approach the study of the pathology of epilepsy is by keeping rigidly within the bounds of molecular physics, and to argue up to the complex by a careful study of the simpler phenomena of nature.

Before concluding our remarks on this branch of the subject we will speak of one or two minor points of interest. The first of these is the very remarkable fact which has been known for ages, viz., that when fits begin by a warning in some one part of the body, as, for instance, by a tingling in

one little finger, or by a twitching in one limb, they may occasionally be stopped by tying a tight ligature above the area of tingling, or by firmly withstanding the muscular action. The old notion as regards the action of the ligature was that the fit actually began in the finger and was unable to pass the ligature. Dr. Gowers's explanation is that the effect of the ligature is to produce an "inhibition" on the nerve cells governing the sensation of the part squeezed, so that as the explosive action travels from the original area of disturbance it meets with an area of "inhibited" cells which it is unable to pass, and that thus the fit is stopped.

Our explanation would be this: Normal sensation means the decomposition of molecules in the sensory nerve cells under the influence of a stimulus—in other words, of force, reaching them from the periphery. After decomposition, the resulting molecules are simpler, and have accordingly less tendency to decompose than the original molecules, and before very long a point is reached in which even strong external stimuli have no influence in producing further decomposition, a fact which, in its practical bearings, is familiar to every journeyman jeweller who has children's ears to pierce. The effect of the tight string is to produce a considerable, but normal and orderly, decomposition in the area surrounding the disturbed district. When the disturbance due to the liberation of force in this district arrives at the area which has just undergone decomposition, it is unable to cause any irregular discharge, and the fit is arrested. Unfortunately, it is rarely that the arrest takes place. In the great majority of epileptics the molecular change is so marked, and the stability of the molecules so much diminished, that no ordinary amount of natural and healthy decomposition is sufficient to counteract the effects of the advancing force.

We have spoken throughout of the effects of healthy decomposition as being "orderly," and following Dr. Gowers, who in his turn has followed Hughlings-Jackson, we have spoken of an epileptic discharge as being "explosive." It is quite certain that this epithet is strictly applicable to the latter discharge; but would it not be correct also to apply it to the former? We believe that it would; we believe that a healthy discharge connected with muscular action at any rate is of this character, though in a far milder degree than is the case with the decomposition in epilepsy. We think that this is shown by the phenomena of muscular contraction in epilepsy itself, which probably differ in no way from those

of ordinary muscular contraction, and which may therefore be justifiably studied in this connection. In a typical case the fit begins by tonic contraction of the muscles, which lasts a certain time and then imperceptibly merges into clonic contraction of the very finest and most rapid description. The clonic contraction gradually becomes coarser in character until it resembles that of an ague attack, and the fit ends by a few isolated jerks, evidently due to the tailing off of the clonic action. A parallel condition is seen under certain circumstances in ordinary muscular action. If a muscle be kept in a state of firm contraction for a certain length of time, this is what we see : At first the contraction is perfectly firm and steady, but after a time, varying according to the strength of the contraction, it ceases to be firm and steady, a fine, tremulous action becoming apparent. If the contraction be maintained, the tremor becomes gradually coarser, until at last the limb is shaken roughly by the clonic action. This is a familiar phenomenon, but any one doubting it has only to hold a ten-pound weight at arm's length from the body for five minutes to have a practical instance of it.

The lesson to be derived from these illustrations we believe to be this, that the single isolated twitches at the end of the epileptic fit represent the unit of muscular contraction and of the molecular nerve action governing the contraction. In each twitch we see muscular action reduced to its lowest terms. Prolonged muscular action is made up of an aggregation of these units. When the units of action follow one another slowly and deliberately, we have coarse clonic action ; when they follow more quickly, we have fine, tremulous clonic action. But after their action the muscular fibres require a certain length of time to recover their passive condition. A stage is therefore at last reached in which the muscular fibres have no time to recover the passive state between the units of action, and we have then a tonic contraction.

There is nothing, of course, new in this account of muscular contraction, the *muscular* side of which is fully described in most modern works on physiology. We think, however, that the *nervous* side of the phenomena has not been sufficiently studied. It is difficult to regard the isolated twitch of instantaneous duration often seen at the end of an epileptic fit as the unit of nervo-muscular action, without being impressed with the feeling that the molecular

change which supplies the force that produces the twitch is of an explosive character; that is to say, that the molecular arrangement is such as (1) to liberate a measurable amount of force in an immeasurably short space of time, and (2) to liberate force in jerks and not in a continuous stream. If this be so (and the reasoning applies to healthy as well as to epileptic muscular action), the *normal* nerve discharge partakes of the nature of an explosion, and we must therefore be careful how we apply the term "explosive" as a characteristic of an epileptic discharge. The explosiveness of epilepsy viewed in this light becomes a question of degree rather than of kind. We should put the case thus: All nerve discharge is explosive in its character, but in health a stimulus of a certain degree is required to produce the explosion, and what is probably of equal importance, explosion in certain molecules does not lead to explosion in neighbouring molecules by mere contiguity. In epilepsy the explosive character of the discharge itself may or may not be increased, but the explosion tends to take place under diminished stimulus, and tends to spread from molecule to molecule through simple contiguity.

We fear that we have expressed our opinion on this difficult subject in too condensed a form. The subject is replete with interest of the highest kind, but the space at our disposal will not allow us to go more fully into it. We would therefore beg that our remarks may be taken rather as hints in the direction of what we believe to be the true explanation of these complex problems, than as expressing all that can be said in favour of our views.

We have left ourselves but little room to speak of the systematic part of Dr. Gowers's work, and we regret this the less that in this respect the book is a model of what works of this class should be—a mass of facts bearing on their face the stamp of truthful observation, digested with the greatest care and discrimination, and arranged with admirable method. We are therefore well content to leave it, without further word, to be studied in the original by all those interested in the subjects of which it treats, and we have only to say in conclusion that we believe that there is no work in the English language, and so far as we are aware in any language, which gives so full and trustworthy an account of all that relates to epilepsy.

W. A. S.

Allgemeine Psychopathologie zur Einführung in das Studium der Geistesstörungen, von Dr. H. Emminghaus. Leipzig, 1878. 8vo., 471 pp.

One can write a book on insanity after two fashions, either hurry over the introductory chapters and general definitions, and then plunge amongst the different forms into which mental disorders have been divided, or describe the different symptoms as defects and aberrations of the sane mind. One can, for example, have a chapter on general paralysis or delirium tremens, mentioning, of course, the delusions or hallucinations existing in each, or he can write a chapter on delusions and hallucinations, taking his generalisations or his examples from cases of general paralysis, delirium tremens, or any other mental disorder with which he is familiar. The one is the clinical, the other is the general and philosophical manner. The book under review is written after the latter fashion. The best instance of a book of the kind written in English is Dr. Maudsley's on the Pathology of the Mind, but there is a great difference between the English and German works. Dr. Maudsley shows greater elaboration of thought and fineness of expression, Dr. Emminghaus more extensive reading and a fuller working-out of particular inquiries. Even in learned Germany the author's wide knowledge and deep research must entitle him to a high place. Dr. Emminghaus' style is plain but clear, his discrimination never asleep, and his personal acquaintance with insanity evidently great, though often buried under the weight of his book-learning. The book is quite a quarry of information, and then there are hundreds of references to the literature of any part of the subject.

It would be difficult to explain the arrangement of the work. The table of contents fills four pages, but we should rather have recourse to the index at the end, which comprises 24 pages, if we wished to consult Dr. Emminghaus on any particular question. In this way we can find almost anything we want; for little treatises on all the vesaniæ may be found throughout the work in smaller type, with curious instances and anecdotes in illustration. The general method has its advantages and disadvantages; it is unfit for the student or the general practitioner, who might seek a book on insanity to help him in distinguishing or treating a case of lunacy. On the other hand, it will be read with pleasure by any one

interested in the philosophy of the human mind, and few indeed can be so deeply acquainted with the lore of mental aberration as not to derive further knowledge from its pages.

The author gets through his subject with an equable tread. It is difficult to find any passage better than another. We take the following almost at random :—

> Fear can arise when material, intellectual, or spiritual possessions, naturally dear to man, are lost or imperilled. Sudden danger of our own life or of those near and dear to us, the unexpected death of persons standing by, attacks upon modesty, rape, dishonour, rash doings, and undertakings which bring misfortune after them, and the sudden loss of all material possessions, may all be the direct cause of insanity as of other neuroses. Moreover, fear will come in amongst other predisposing causes if personal interests are suddenly injured, or well-founded hopes and wishes are cast down at one blow ; the long concentration of desire upon one object, the brooding over and striving after one aim, is, on account of the one-sidedness of the ideas and direction of the feelings, very nearly related to an especial predisposition to mental derangement. The sudden perception of the vanity of the quest of honour and of gain, or disappointment in love, may be the direct cause of insanity.

Again—

> As fear may be the cause of many neuroses and nervous diseases (chorea, epilepsy, paralysis, exophthalmic goitre, neuropathic diabetes, &c.), it may also produce different forms of insanity, especially stupor, confusion and depression of mind, that half-spasmodic, half-paralytic condition of listlessness, thinking or willing (Griesinger), up to complete melancholia attonita, or even to suddenly deadly coma (Bamberger). In other affections resulting from fear, there have been observed alternations between melancholia with stupor and maniacal excitement (Morel), insanity with hallucinations, general paralysis, imbecility, and with dementia, sometimes great excitement (Huguenin), and as K. W. Ideler has pointed out, also insanity with delusions, the patient fancying that he has really gained what he has vainly striven after, or that he still possesses what he has lost.

It would be difficult to say, allowing due latitude to the author's judgment, that any subject of importance does not receive its full share of attention. A little more might perhaps be said on the action of certain intoxicants in producing insanity. Dr. Emminghaus only devotes five lines to pellagra and six to haschisch. "After habitual misuse of this poison," he remarks, "mental derangements—mania and dementia—have in the East been seen to ensue." Clearly he does not know to what an extent the smoking of churrus, a prepara-

tion of cannabis, has been found to be a cause of insanity in the asylums of India. He tells us of "elementary mental diseases" caused by unwholesome food. The sausage poison has produced distress, sleeplessness, and excitement and delirium, diseased potatoes "intoxication." Many Asiatic people (the Samoeids, the Kamtschadales, and the Ostiaks) use the puff-ball fungi to produce a pleasant state of ebriety. In Europe these fungi when eaten have been known to cause confusion, distress, delirium, and a tendency to acts of violence. What is singular we cannot find in the book any mention of insanity produced by the use of spurred rye, which has often occurred in Germany. Probably the interesting paper of Dr. Siemens (see *résumé* in our Journal, Oct., 1881, p. 429) has already directed the attention of Dr. Emminghaus to the omission.

Leaving these minor defects out of consideration, it may be said that this is a most carefully written, complete, learned, and instructive work.

Diseases of the Spinal Cord. By Dr. Byron Bramwell, Lecturer on the Principles and Practice of Medicine, and on Medical Diagnosis, in the Extra-Academical School of Medicine, Edinburgh, &c. Edinburgh: Maclachlan and Stewart.

In this volume we have Dr. Bramwell's lectures elaborated and prepared for publication. He believes, and rightly, that one great secret of all successful teaching is to teach by the eye as well as by the ear, and he is therefore in the habit of illustrating his lectures copiously by diagrams, microscopical preparations, &c. This principle he has carried out in his book with much success. His chromo-lithographs are the best we have seen in any book on the diseases of the nervous system, and as they have been, with two exceptions, drawn by himself from his own sections, he deserves the greatest credit for them.

This volume is entirely educational in its object and method. It contains a full and careful summary of all that is known of the physiology and pathology of the cord. It is not a slavish compilation, in which all kinds of facts, reliable and unreliable, are heaped together without any regard to their value. On the contrary, there are constant evidences that Dr. Bramwell's reading has been tested by experience at the bedside and in the pathological room. Further, the

matter is clearly arranged, the essential features of any disease under notice are clearly brought out, and very often the differential diagnosis is put in tabular form, so that, at a glance, the points are made clear. There is no attempt at grand writing, which indeed would be ludicrously out of place; the style is plain, and there is no difficulty in understanding every sentence in the book.

Asylum physicians are, rightly or wrongly, accused of neglecting general medicine, and indeed of knowing but superficially their own department. It is said that they are overwhelmed by official cares and details to the neglect of all good professional work. Now, whilst we believe these statements in very many cases to be quite unfounded, we do feel that, as a rule, diseases of the spinal cord do not receive adequate attention. Whilst asylum medical officers display commendable zeal in examining the brain and the viscera in the thorax and abdomen, it is quite the exception for them to remove the cord. This is considered such a difficult and troublesome operation that it is rarely attempted, and so it is not unusual to hear that a junior member of the speciality has spent a forenoon in doing what he might easily accomplish in half, aye, quarter of an hour, if he were properly instructed and exercised in the operation. Now, however, there can be no excuse. In the last page of his book Dr. Bramwell gives directions for the removal and preservation of the cord, and he begs his readers to send him cords of typical, interesting, or rare cases. He promises to send back microscopical sections in return. We wonder what response he will have from asylum physicians. Every year several hundreds of persons die of general paralysis; the cords are almost never examined, though they should be, for it is certain that they are variously affected in different cases and stages of the disease. No post-mortem examination in a case of general paralysis can be considered complete in which the naked-eye and microscopical appearances of the cord are not given.

We have read the book through with great care, parts of it twice over, and we can recommend it in every respect. To the beginner anxious to know something of the subject, it is a trustworthy and complete text-book, and the more experienced physician will find in it much original work admirably recorded.

John Howard's Winter's Journey. By WILLIAM A. GUY, F.R.C.P., F.R.S., &c. De la Rue and Co. 1882.

This is a most interesting little book, containing an account of Howard's journey in 1773-4, which is chosen by Dr. Guy as "both a central point from which to survey the acts which precede and follow, and as a typical example of Howard's method of procedure." The title does not do justice to the book, for it is really a graphic sketch of Howard and his work, and an attempt to represent his true place in history, namely, as that of the unconscious founder of a method of *preventive*, as distinguished from *palliative*, philanthropy.

Howard had been a feeble infant; he could never, it seems, be called robust. An attack of gout led him to become extremely abstemious. He was short of stature, and was compared by one writer to "a little French dancing-master." He was extremely active in his manners. He had a long arched nose, a pouting under-lip, a wide, square forehead, and full, piercing eyes.

Dr. Guy replies to the question, "Were there no weaknesses or defects of character which ought, in the interests of truth, to be mentioned by those who exult in the rare excellence of his public life?" as follows:—

> Yes, Howard was by no means free from eccentricities. His first marriage to an invalid widow twice his own age, however tenderly she may have nursed him, and however grateful he may have felt towards her, must be set down as a sort of eccentricity. So also may the vanity which led him to boast of the docility of his child, and to call friends to witness examples of it. Perhaps, too, there was something which may be called eccentric in his love of solitude, a condition more easy to praise than to bear, bad for all children and for most grown-up men and women, and if to some constitutions a wholesome tonic, one that should never be prescribed but in small and divided doses. In the same category may, perhaps, be included the extreme assertion of his dignity as a man in his dealings with Pope, Emperor, and Czar. . . . . Whatever the defects of Howard's character may have been, we ought, in forming an estimate of his character, never to forget that no stain rests upon his morals.

These facts are of interest in relation to the subject which has most interest for the readers of this Journal—the insanity of Howard's only son. He was the offspring of a second marriage which took place in 1758. Seven years afterwards the son was born, namely, in 1765. The mother's health was

very delicate, and she died a few days after his birth. With him Howard resided about four years. Then the child was sent to a girls' school, afterwards to three other schools, and was then transferred to the Edinburgh University. From Edinburgh he went to Cambridge, and it was here that symptoms of insanity first showed themselves. They were attributed, "as his father knew to his shame and sorrow, to some circumstances affecting the son's health which happened at Edinburgh."

To this cause and to hereditary predisposition, whether from only one parent or from both, Dr. Guy attributes the son's madness.* It is stated that insanity did not prevail among Howard's ancestors, "but there are obvious reasons why this inquiry should not be pursued further."

He rejects the common charge that Howard's training was in any sense the cause of his son's insanity. He denies there being any proof that he treated him with harshness, and he quotes Dr. Monro, who was called in, to confirm his position.

Stern he certainly was. Once the son was walking with his father in the garden, when the latter said, "This walk was planted by your mother; and if you ever touch a twig of it, may my blessing never rest upon you." Howard said he never struck his son in his life. Dr. Aikin is quoted as saying, "Howard's method was free from everything hasty, violent, and capricious, and consisted in a very steady, cool, and uniform course of discipline and authority, in such points alone as were thought important to the child's welfare."

Dr. Guy says, "the father has been called an enthusiast," and asks, "Might not that which was enthusiasm in him have developed into madness in the son?"

The reply is made in these terms:—

> If the enthusiasm here spoken of is that which most founders and reformers of religious sects and systems have displayed, if it is taken to mean that earnest and excited state of mind which shapes itself into burning words, which attracts crowds and sways the masses, Howard was singularly free from it, and of this his biographers afford strong and conclusive negative evidence. Howard never had a single illusion of the senses, or delusion of the mind; he was not subject to fits; he never evinced a sudden, or even a gradual change, marked change of character; he never undertook any enterprise with obviously inadequate motives and means; nor was he even so absorbed by

* In Baldwin Brown's Memoirs the author states that he has *authority* for saying that a hereditary tendency to insanity existed in some branches of his family, on which side is not stated.

the work he had in hand as to neglect the duties belonging to his position as a landlord, or to ignore the claims of individual sufferers with whom he chanced to be brought in contact. His letters from abroad contain the most minute instructions as to the management of his property at Cardington, and his will gives proof of a lively recollection of those he had left behind, and a generous discrimination of their several claims upon his posthumous bounty.

Let it then be well understood that if Howard was an enthusiast at all, he was one of a type quite unique. He neither changed, nor developed, nor degenerated in the thirty-four years of which may be fitly called his public life. What he was in his dealings with his fellow-captives in France, that he continued to be when ministering to the troops in Russia. So strong and firm was the fibre of his mind that it neither gave way before the strongest religious emotions nor yielded in the slightest degree before the fatigues, privations, and diseases to which his travels exposed him (p. 8).

Letters from the youth's uncle, Mr. Edward Leeds, to Mr. Lilburne, the agent of the Cardington estate, have been placed by Mr. Whitbread in Dr. Guy's hands, in which there are special references to young Howard's insanity, derived from the monthly reports of the well-known Dr. Arnold, in whose asylum at Leicester the patient was placed.

In the first letter, Feb. 11, 1792, he is described as being in a "very distracted state;" in others, as "sometimes better, sometimes worse;" in one a prospect of amendment is mentioned. In Dec. 10, 1795, a more detailed account is given by Mr. Leeds. "My nephew continues in the same hopeless way, sometimes better, sometimes worse. His bodily health is generally good, unless when reduced by his fits of frenzy, during the continuance of which he, with invariable obstinacy, refuses either to move or eat, subsisting for days together on spoon-meats forced down his throat. These fits the doctor (Arnold) informs me increase in violence, but happily are not of so long continuance, otherwise his life would be endangered." In 1799 (March 8) the patient was "neither better nor worse than he has been for several years." However, he died on the 26th of the following month.

We are glad to have the very general opinion of Howard's cruel severity to his son dissipated. It is one thing to have been stern, and to have had, as Dr. Monro says Howard had, "some strange whims about his son's education," and another to have been what popular notions have represented Howard, a father who neglected his only son in order to visit prisons, or when he did not neglect him, treated him with frightful severity.

To all interested in Howard, and especially those who on any ground may be prejudiced against him, we strongly commend this book by Dr. Guy, who, if a fervent admirer of his hero, is always fair in letting the reader know what has been said by his detractors.

Die Medicamentose Behandlung der Psychosen, von Dr. Brosius, Director der Heilanstalten, Bendorf-Sayn.

This is a reprint of a short article in the "Deutsche Medicinische Wochenschrift." Dr. Brosius here appears defending some sceptical utterances which he had previously made, holding that the course of insanity is scarcely ever arrested or shortened by medicines, and that "the view that mental derangements recover without drugs is already old," older, we daresay, than medicine itself. "The increased fineness of our diagnosis," he observes, "has not increased the number of our recoveries." The learned doctor seeks to prove this by giving us selected statistics of different asylums. In some few or no drugs are given; in others the apothecary's bill is a large one; and the percentage of recovery is as good in the one set as in the other.

We do not deny that this statistical line of argument, if faithfully conducted, can furnish us with important lessons; but for a controversy of this nature a lengthened and exhaustive inquiry is needed, and this cannot be completed in half a page. Dr. Brosius tells us that during the 25 years his asylum has been in existence out of 160 patients thought to be curable 82, = 50 per cent., recovered without the use of medical agents save in two cases. It is clearly open for an adversary to reply that as Dr. Brosius' experience is mainly confined to treatment by the expectant method, he could only be trusted to classify as recoverable, cases likely to get well without medical treatment, and that if he had made greater use of therapeutic methods for the rest, he might have had more recoveries. As Dr. Brosius' asylum is a private one, he can, we suppose, choose his own patients, or at least reject those he does not like. His division into curable or incurable may be correct, but until the principles are clearly known to us, it is not likely that it will be quietly accepted as a basis for a statistical argument. Dr. Brosius quotes with applause the axiom of Dr. Stark that the most important and efficacious means of treatment and cure is in

most cases the asylum, as well as the observation of Guislain that the most powerful means of combating mania is deprivation of liberty. To the question in what the curative influence of mere confinement in an asylum consists we have no distinct reply. We gather that Dr. Brosius has much faith in the curative powers of beer and wine, "mild alcoholization of the brain," and good diet. The arrangements and appliances (Einrichtungen and Raümlichkeiten) of an asylum are alluded to as useful in treatment.

It is likely enough that in some asylums in Germany, Dr. Brosius' warnings against the abuse of opium and chloral may be needed. I once visited an asylum where there were about forty patients, and the physician, after explaining to me his methods of treatment, some of which were pretty energetic, apologised for one solitary lunatic who at the time was receiving no medicine. As a counterpart to this, the medical superintendent of a large asylum in Great Britain once assured me that for some years he had wholly given up any medicinal treatment for his patients, and did not find that the percentage of his recoveries was diminished. In an inquiry, of which we read in a New Zealand newspaper, as to the manner in which an asylum there was conducted, the visiting physician was severely blamed by a committee of laymen because, though he carefully treated all the incidental diseases of the lunatics, he had no regular medical treatment for the mental disorders on account of which they were deprived of their liberty.

In Great Britain, Dr. Brosius will no doubt find supporters; but we are not sure that if he knew more about the asylums in our island, that he would think it worth while to write against medical treatment for lunatics. It may look very eccentric as things go, but we have a serious misgiving that behind the parade of upholstery and gimcrackery there is sometimes a dearth of individual consideration, special treatment, and medical care. *Ubi stimulus, ibi fluxus.* The shortest cuts are ever the best-worn paths, and a hard-worked man soon learns what it is safest to neglect.

Even should the views of our distinguished German colleague be admitted as correct, it would only incline us all the more earnestly to exhort and encourage the rising generation of physicians who study insanity in this country to devote much of their energies to therapeutics rather than to pathology.

W. W. I.

Text Book to Kant. By James Hutchinson Stirling, LL.D. Oliver and Boyd. 1881.

We shall not attempt an extended review of this work. We must say, however, that no one who wishes to study Kant deeply can afford to be without it. An introductory biographical sketch occupies 28 pages, which ends with "It is now—1881—exactly a hundred years since the publication of the first great kritik, and there can be no doubt that, at this moment, the place of Kant, as generally estimated, is that of greatest German philosopher, greatest modern philosopher, greatest philosopher at all, with only the usual exceptions of Plato and Aristotle. . . . . His character as a man has been already to some extent depicted. In that respect, and every other respect, he was, and always will be, *der ehrliche Kant*." Of Dr. Hutchinson Stirling's own philosophical ability, we have in this Journal spoken so strongly when reviewing his "Lectures on the Philosophy of Law," that we need only repeat what we then wrote, the 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."

Kant. By William Wallace, M.A., LL.D. Blackwood and Sons. 1882.

This is the most recent addition to the excellent series of "Philosophical Classics for English Readers," edited by Professor Knight, to which we have called attention in a former number. It is founded on Schubert's Life, and is altogether a most readable book, both in regard to the biographical portion and the account of Kant's philosophical views. One of the causes of his wide and continued influence lies in the fact that, as the author observes, "Kant left behind no *system*, but he threw out suggestions of matchless fertility, and marked out with the instinct of genius the true form of philosophic problems. . . . . At every step he carries us beyond his own lines."

On the Brains of Criminals, with a Description of the Brains of Two Murderers. By William Osler, M.D., M.R.C.P. London.

This reprint from the "Canada Medical and Surgical Journal," February, 1882, is, like everything which Professor Osler writes, characterised by a conscientious regard for the facts observed by himself, and a clear sense and statement of their bearing and significance. His pamphlet, which is illustrated, should be read by all who heard Professor Benedikt's interesting paper at the International Medical Congress. Professor Osler observes, "Any one who believes that with all our mental and moral processes there is an unbroken material succession must consistently be a *determinist*. . . . . For a long time to come, however, the majority of individuals—including some who are inconsistent in so doing—will continue to hold the *intuitionist* view, nowhere better expressed than by Shakespeare when he puts into the mouth of that arch-criminal, Iago, the words, 'Tis in ourselves that we are thus and thus. Our bodies are our gardens, to the which our wills are gardeners, so that if we will plant nettles or sow lettuce, set hyssop, and weed up thyme, supply it with one gender of herbs, or distract it with many, either to have it sterile with idleness or manured with industry, why, the power and corrigible authority of this lies in our will.' . . . . One thing is certain, that as society is at present constituted, it cannot afford to have a class of *criminal automata*, and to have every rascal pleading guilty grey matter in extenuation of some crime." The determinist must, to be consistent, grant irresponsibility to criminals; and, if so, all the efforts made by mental experts to determine who is and who is not responsible for his crimes are wasted. The plea of insanity in criminal cases becomes an idle and dishonest one. Professor Osler holds that as yet neither Benedikt nor other disbelievers in free-will have proved their point; but that if the determinist is after all right, then, indeed, are men "villains by necessity, fools by heavenly compulsion, and knaves and thieves and treachers by spherical predominance."

"*Chemical Restraint*" *in the Management of the Insane.* By H. B. Wilbur, M.D. New York. 1881.

The object of this essay is to show that it is an error to suppose that stupifying drugs are, in Britain, the substitute for mechanical restraints. Dr. Wilbur's statement and figures will be read with interest on both sides of the Atlantic. If criticisms of the mode of treating patients in the asylums of the United States are called for, we much prefer seeing them made by Americans themselves, who have seen the management of asylums in this country, than by ourselves. We are glad to observe from Dr. Clouston's last annual report that several young American physicians have been staying at Morningside. This is as it should be, and no doubt young Britishers might with advantage reside for a time in asylums across the water.

One matter in this paper we notice with pain. Dr. Wilbur deliberately charges the medical superintendents of asylums in America with misleading English physicians who visit them. This is really too serious a matter to pass unchallenged. It is either true or false. If true, the good faith we always supposed an essential part of our intercourse with the members of our profession, in all civilized countries, is rudely shaken, and we ask despairingly, What are we to believe? If false, those who are charged with such an unworthy course ought to give ample proof of its being a calumny, and make its publicity as wide as the charge. Silence in such a case cannot serve the purposes of truth.

The passage we refer to is as follows:—

"Although during the last four or five years there has been a great diminution in the use of restraining apparatus in the insane asylums of the United States, yet it is obvious from the table that mechanical restraint is now used in some to a degree which will surprise most British alienists. Some of their number have visited a few of our institutions when in this country. They have been told by the superintendents that little resort was had to restraining apparatus, and with the known non-restraint opinions of such visitors, such apparatus has, not unnaturally, been kept out of sight and out of use for the time being. These gentlemen have gone away deceived, as Dr. Bucknill was, as to the amount of restraint used." Dr. Bucknill spent several days at the one well-known asylum, and wrote of

his visit in the Notes on American Asylums "that he saw none in restraint or seclusion, and that the Superintendent, differed from his American brethren in not using restraint." Yet Dr. Wilbur asserts that counting the cribbed as a form of mechanical restraint, "and it most certainly is," there is more mechanical restraint used in this one asylum, than in all the borough and county asylums of England put together. Our pages are open to any rejoinder which may be forthcoming from any of the American superintendents. We will willingly agree to differ as to "non-restraint," but Dr. Wilbur's charge enters the domain of medical ethics.

Dr. Wilbur concludes by saying that "'Chemical restraint' is not the substitute for mechanical restraint in British asylums; that the principle of non-restraint is not a failure in England; that casualties are not confined to non-restraint asylums; and lastly, that some of the advocates of mechanical restraint seem to be reluctant to have their methods made known to the profession generally."

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect (Asylum Reports.)*

(*Continued from p.* 112, No. CXXI.)

Royal Edinburgh Asylum.—Many passages of interest occur in Dr. Clouston's report. One refers to feeding in cases of maniacal exhaustion, and he insists on the value of milk. "The greater my experience becomes I tend more to substitute milk for stimulants. I don't undervalue the latter in suitable cases; but in the very acute cases, both of depression and maniacal exaltation, where the disordered working of the brain tends rapidly to exhaust the strength, I rely more and more on milk and eggs made into custards. One such case this year got eight pints of milk and sixteen eggs every day for three months, and under this treatment recovered. I question whether he would have done so under any other. He was almost dead on admission, acutely delirious, absolutely sleepless, and very nearly pulseless." The following passage bears out Dr. Urquhart's paper in the present number of the Journal:—"I am a great believer in the good effects of bright colours on the mentally depressed in this dull Scotch climate of ours [we hope this does not apply to the month in which the Association is to meet in Glasgow], and look on the

present high art craze for dull olive greens as being a simple device of the Evil One, who loves darkness rather than light." Dr. Clouston has an interesting reference to the International Medical Congress, and thinks its influence on the treatment of the insane will do good. He repels the notion that Scotch lunatics are of a milder type than those of other countries, and hence any success obtained in calming the excited is attributed to the course pursued. The best proof of this is the contrast between the refractory wards at Morningside twenty years ago and now. Limited space prevents our making further extracts. Dr. Clouston's reports are always pleasant and instructive reading.

Salop and Montgomery.—There is now every prospect that the much-needed enlargement of this asylum will at once be carried out. Plans have been prepared, and now require official approval.

Typhoid fever appeared during the year, and proved fatal in one case. During the prevalence of the fever more than the ordinary number of patients suffered from diarrhœa. These disorders were not traced to any defective sanitary arrangement.

Somerset and Bath.—In their report the Visitors express strong views against criminals being sent to the county asylum. They also report that "there have been during the past year more applications for the admission of middle-class patients than heretofore; these the Committee have been obliged to refuse. They are under the impression that through the action of the Boards of Guardians patients are admitted whose friends pay for them. If this is an abuse, it is one the Committee cannot censure; and they take occasion of it to point out the desirableness of such a change in the Lunacy Laws as would put a larger number of middle-class patients in asylums, not private, with suitable accommodation."

In Dr. Madden-Mellicott's report attention is directed to the same subject. He does not view favourably the use of workhouses as places to relieve pressure on the accommodation of county asylums. Of twelve carefully selected cases two had returned at the date of the report, and both had lost weight.

Beer and cider have been excluded experimentally from the ordinary diet. "When it became evident that there was a positive individual benefit gained by giving the working patients some substitutes like tea, coffee, or cocoa, in place of liquor, it certainly appeared desirable to extend this advantage to the other patients, and consequently afterwards *all* the patients throughout the asylum had coffee for dinner instead of beer or cider, and subsequently an addition was made to the diet by increasing the quantity of bread and meat."

Suffolk.—At the present time asylum officials are much exercised in their minds at the threatened appearance of County Boards, and they talk as if their condition were about to undergo a great change for the worse. That is possible, no doubt; but, it should be asked, is their state so satisfactory that all change should be feared? We

think not. It cannot be doubted that some medical superintendents are uncourteously treated by their Visitors. Witness the following minute by the Suffolk Committee :—

" It was resolved :—That the Medical Superintendent and Clerk to the Asylum be in attendance on the meetings of the Committee, but not present thereat, unless when called in." Such a resolution is most insulting to the medical superintendent officially and personally. Under the circumstances we would imagine that Mr. Eager would welcome any change which might relieve him from such a position.

Stafford. Burntwood.—After 22 years' service Dr. Davis has resigned his appointment as medical superintendent, and he has been granted a pension of £250. This seems small, even though it be considered that his wife receives an annual allowance of £100 after 25 years' service as matron.

The deaths numbered 55 ; of these no fewer than 22 were due to phthisis, and 17 to general paralysis.

In Table III. the percentage of deaths on the average number resident is incorrectly given. Instead of 9·71, 9·69, the figures should be 10·2, 10·3.

Surrey. Wandsworth.—Of the 88 patients who died during the year, only five were examined after death. This must be considered an unusually small proportion.

Warwick.—The mortality among the male patients was excessive. Two outbreaks of diarrhœa occurred, and caused or accelerated 19 deaths. Defects in the drainage were responsible for this serious state of matters.

" It is satisfactory to be able to deduce from the annual statistical records of pauper lunacy in this county, exclusive of Birmingham, which, as an independent borough, including with Birmingham proper much the larger portion of the population of the Aston union, makes independent provision for its insane poor, that there does not appear to have been any increase, but rather a decrease of mental disorder during the last three years. There are at the end of the year 1880 twenty-six fewer insane poor in the workhouses and boarded with their friends than at the end of the year 1877 ; while in the same period the addition to the numbers in this asylum has been three. And though our very small increase is partly attributable to the unusual male mortality in the past year, yet, making liberal allowance for this exceptional fact, the insanity coming under the immediate cognisance of the parochial authorities is not any more at the end than at the commencement of this period."

Wilts.—The following paragraph is from the Committee's report to Quarter Sessions :—

" The very large amount of copying thrown upon the superintendent by the increase of patients and the number of books and forms which have to be filled up and copied seemed to the Committee to require the appointment of a copying clerk to do this work, and one has

accordingly been appointed at a salary of £30 a year. The time of the medical superintendent hitherto occupied in this work is now available for the discharge of his more important duties."

We are quite at a loss to know what this lad can find to do. We are familiar with the duties of a superintendent in a large asylum and in a small one, and we do not know what the books and forms can be which require to be filled up and copied. It is well, however, if there is such an amount of correspondence, that Dr. Cooke cannot get through it with the assistance of a clerk and steward and an assistant ditto, that he should have further help. But it should be remembered that correspondence, like every other luxury, is capable of wonderful development. In a county asylum the superintendent need spend very little time daily over letters, forms, &c., if he insists on his staff doing their fair share of work.

Important structural alterations continue to be made.

Wonford House.—Now that the consulting physicians have been relieved of their duties, and the medical superintendent has been placed in supreme control as the officer responsible to the Committee for the management of the institution, it is satisfactory to find the Board stating that after an experience of some months of the system of government set forth in the new General Regulations, it is in a position to state with confidence the changes introduced have been completely satisfactory.

This asylum is evidently under energetic and intelligent direction, and Dr. Philipps' report is a more than usually satisfactory production. In the following paragraph he draws attention to a feature of the management which receives his special attention :—

"The assistant medical officer has heartily co-operated with me to develop that social intercourse with the patients which I have tried to make a special feature of Wonford House. We spend much time and take most of our meals with the patients, endeavouring to get them to occupy themselves and to take an interest in the events of the day. In this respect, namely, the large amount of social intercourse that exists between the patients and the superior staff, Wonford House is, I believe, in advance of the other lunatic hospitals. We want something more before I can consider the staff fully up to our requirements. We want a larger proportion of superior nurses—in short, more lady companions (at present we have only one), active, intelligent gentlewomen, who, while performing all the ordinary nursing duties, would be able to give the lady patients that soothing and sympathising companionship so much required."

Worcester.—The Visitors presented a special report to Quarter Sessions on the proposed enlargement of the asylum. This is a carefully prepared document, and we would refer all superintendents to it who recommend enlarged accommodation and find the magistrates obstructive.

It is constantly stated that chronic cases can be cared for in work-

houses at a lower cost than in asylums, and the statement is repeated although it has been as often shown to be incorrect. On this subject the report is as follows :—

"It is said that the cost of the maintenance of this class on the comparatively liberal diet furnished in the asylums is excessive in comparison with the cost of maintenance in workhouses. But your Committee find on inquiry that this proposition is based on entirely fallacious grounds.

"They have been able, with the assistance of the Martley Board of Guardians, to obtain information as to the weekly cost of the maintenance of paupers in a considerable number of workhouses. They find the average weekly cost of food and clothing to be 4s. a head for both sexes, exclusive of the establishment charges. The actual average weekly cost of the maintenance of the patients in the Powick Asylum is for men 3s., and for women 2s. $7\frac{3}{4}$d., for food only, with a further average of 6d. for wine, spirits, drugs, and about 6d. each for clothing so that notwithstanding the more liberal diet furnished in the asylum, and notwithstanding that its inmates are, with comparatively few exceptions, adults, the actual average cost of food and clothing for the inmates is slightly less than that in a workhouse whose inmates comprise a large proportion of infants and very young children. The advantage in the case of the asylum arises, no doubt, mainly from the size of the establishment, and could not be reproduced to an equal extent in a branch establishment on a smaller scale.

"Although the diet necessary for the support of chronic cases need not be so abundant or stimulating as that necessary in acute cases, yet the diet even in chronic cases must necessarily be somewhat more nutritious than the average provided for paupers in workhouses, and in asylums set apart for the purpose in Middlesex it has been found that the average weekly cost of maintenance of chronic as distinguished from acute cases amounts, including establishment charges, to 8s. per week per head. And your Committee, after giving the subject full consideration, do not see any reason to believe that chronic cases could be maintained at a branch establishment in the county at a much less cost than the acute cases."

We cannot omit the following paragraphs, which relate to an exceedingly important subject—the exclusion of so-called private patients. The remarks by the Committee are thoroughly sound :—

"The exclusion of this class would at this date remove from the asylum 47 patients, and to this extent would produce an immediate apparent relief. But the exclusion of this class of patients is, in the opinion of your Committee, objectionable on two grounds.

"First, the patients in question all have settlements within the county or city of Worcester, and if paupers would be sent to the Powick Asylum as such. They are taken, with very rare exceptions,

from a class which, though not actually pauper, would be quite unable to bear the expense of maintenance in an ordinary private asylum. They would, therefore, if now discharged, return in most cases after short intervals as paupers.

"The relief afforded by their exclusion would thus be so temporary as to be quite illusory, and the degradation of the returned patients to the pauper class would have an injurious effect in subjecting to the stigma of pauperism their friends and relations, who now (and often by the exercise of much self-denial) keep themselves above the level of that class.

"Secondly, inasmuch as all the patients of both classes are treated on an equality in respect of diet and accommodation, the difference between the ordinary charge for a pauper and the amount paid by the friends of private patients, which is always in practice proportioned to their means, is a clear profit to the ratepayers. This profit, which amounts to about £650 per annum, would, if the private patients were excluded, be wholly lost."

The same subject is treated fully and admirably in another report by the late Dr. Sherlock.

Yorkshire. East Riding.—This asylum is now heated by hot water, at an original cost of £426.

North Riding.—Two wings have been built, accommodating 50 of each sex. The ground floor in each is used as a special dormitory for the epileptic and suicidal.

South Yorkshire.—Among the many additions and improvements which continue to be made in this great asylum, we need specially notice only the introduction of hot-water pipes for the heating of the sick wards, &c.

York Retreat.—Dr. Baker's report marks continued progress in introducing improvements in the building during the last year. "The erection of the east villa and entrance lodge has been completed, the rooms being almost ready for occupation. The new buildings as finished show to greater advantage, the beauty of their design and the excellence of the site having already caused them to be greatly admired." Altogether the institution appears to be in a very flourishing condition, and reflects credit upon the management, medical and financial.

West Riding.—There appears to be no end to the demand for asylum accommodation at Wakefield, and year by year the character of the cases becomes worse. On the first subject Dr. Major expresses a decided opinion, and with it we conclude the reports for another year.

"As to why there should have occurred in recent cases the very marked and incontestable deterioration in the character of the cases brought for treatment, which has been frequently alluded to in my reports to the Committee, I would here record my deliberate opinion, founded upon facts and circumstances within my knowledge, that the

capitation grant allowed by Government in the case of patients in asylums only has had at least much to do with bringing about this result, and that the forebodings of those who from the first judged that it would have this effect have been only too amply fulfilled. Doubtless also the prolonged depression of trade and the consequent reduction of wages have played their part by throwing on the rates, and finally on the asylum, many an imbecile member of a family who, in more prosperous times, could and would have been maintained at home. In this way could be accounted for the fact alluded to by the Commissioners in Lunacy in their last report (1879) that of late years there has occurred a steady decline in the number of the insane poor residing with relatives or others, whilst on the other hand the number under certificates has done nothing but advance in the same period. I venture to think that the time has arrived when it behoves the Legislature to inquire into the operation of the Government capitation grant in England by the light of such facts as these; to see whether some such arrangement as that which obtains in Scotland, and under which the insane poor, whether accommodated in asylums or poor-houses, or living in so-called family care, receive according to circumstances, and provided that the accommodation has the approval of the Scotch Lunacy Board, a proportion of the Government grant in aid, could not be made applicable to the insane poor in England. Failing this, I venture to think it would be well to divert the grant into another channel if it can be shown that its exclusive application in favour of patients resident in asylums has had, and will probably continue to have, the result of throwing unduly on these institutions classes of cases other than those for which they are most required, and should, primarily at least, be reserved."

It will be noticed that we have almost entirely confined ourselves to extracts from each report, thus allowing each writer to reproduce his own ideas, free from comment or correction except in a few cases. As might be expected, there are numerous sins of omission and commission in the 70 or 80 annual reports we have read through, but we have indicated faults very gently, and often ignored them. Perhaps the worst and most common fault is bad English composition. Some otherwise admirable reports are rendered painful reading, and the sense obscured, by this cause. No doubt it is difficult to write an official report in flowing Addisonian English, but if long, complicated, and hopelessly involved sentences were avoided, the reader would be saved much trouble in searching for the meaning.

2. *French Retrospect.*

By W. Herbert Packer, L.R.C.P.Lond., Assistant Medical Officer, Salop County Asylum.

Demoniacal Possession.

The following translation of a letter in the "Progrès Medical" of the 2nd July, 1881, seems to me of considerable interest as showing, among other things, the powerful effect of the force of imitation in that Protean disease hysteria, and also the result of bad moral treatment. A series of somewhat similar cases, illustrating what has been well called the contagion of nervous affections in these leading to undoubted insanity with distinct delusions, is well described, and typical cases noted, by Dr. M. de Montgel, of the Marseilles Public Asylum, in the January number of the "Annales-Medico-Psychologiques." But in almost all the cases there cited hereditary taint was distinctly made out, the weak mind being crushed by continued contact with the insane one. This *folie-à-deux* deserves serious attention; it may, from a medico-legal point of view, assume considerable importance; for instance, a person accused of crime may be under the domination of another's delusions. Many of the ecstatic outbreaks of seeming religion exemplify this form of insanity, often observed although seldom treated according to their deserts.

The letter is written from Saint-Breuc, by M. J. Baratoux, and is dated June 28:—

The local and Parisian journals have on several occasions of late referred to strange events taking place in the neighbourhood of this town. Seven children of the Marcet family, living in the Hotel Morin, four kilometres from the town of Pledran, are, it appears, *possessed by spirits.* "These children are subject day and night to most strange contortions; sometimes forced by a supernatural agency, they crawl on hands and knees, and throw themselves into a well in the farm-yard, and climb up the wall out again like monkeys. At other times they clamber into the trees, ascend to the roof of the house with giddy speed, and execute a demoniacal dance on the chimney tops, accompanied by wild shouts. Even the youngest child, aged seven months, takes her share in the performances if the precaution of tying her in her cradle be not taken." Such are the facts as related by serious and trustworthy people, according to the local journals. Indeed, the neighbours told ourselves a similar story.

Before reporting the facts we have personally observed, we consider it will not be useless to explain what the district of Pledran and its inhabitants are like. This inland market town is situated about nine kilometres from Saint-Breuc. Four kilometres distant is the village of Grand Hirel, and ten minutes' walk thence across the fields is the Hotel Morin, consisting of three old houses. These dwellings, made

of timber united by a thin layer of plaster, and thatched with straw, are only one story high. They form one building where men and horses live together. Against the front of the house, which has at the most an elevation of about three metres, is built a small stable, about two metres high, and adjoining this is placed a sloping mound of earth, which permits one to mount easily on to the stable, and thence to the roof of the house. Several metres from the house a well has been dug, which is constructed as follows: Its opening is about 75 centimetres across, and its depth about five metres, there being about one metre of water in it. The descent of this well is very easily made by holding on to the stones projecting into its interior, and which here, as in the house, are quite uncovered.

We should also say that the inhabitants lead a very primitive mode of life, that they are ignorant, credulous, and simple, their great and only, so to speak, diversion during the winter being the evening gathering, where each relates a tale of which fairies and wizards are the subject. Thus it is that any unusual occurrence they may observe is attributed, by their strongly impressed imaginations, to an occult influence. It is unnecessary to add that these people are under the almost exclusive control of their Curé and those about him.

When one of these children felt the first symptoms of her illness, she related, in so grossly exaggerated a manner, all she had seen and heard that very soon people began to say that a spell (*une passee*) had been thrown over the Marcets, who were at the same time under the influence of all the devils and imps. They quickly called to their assistance, but ineffectually, the clergy, who said masses, blessed the house and those they deemed possessed, in order to exorcise the devils. The Curé of Pledran, who had gone to the farm of Grand Hirel for this purpose, found Marie Jeanne, the eldest of the family, on the roof, and when he begged her to come down she replied in angry and insulting language, grinning fiercely the while, "so the mother states."

But putting on one side this fantastic narrative, let us relate only the information which we have ourselves obtained, and the facts we have observed with our own eyes.

On the 23rd February of this year Marie Jeanne Marcet felt the first of those symptoms that were soon to be so greatly aggravated. On that day she was very nervous, complained of a violent pain in the head and a frequent feeling of sickness. Next day, her mother told us, her upper limbs were seen hanging by her side, and remained so for four days, when the left arm regained its power, the right not doing so until three days after, that is on the 2nd March. It was at this time that she suffered from her first nervous crisis, her parents noticing that she lost consciousness and made disorderly movements, analogous to those which we afterwards saw. During the attack, lasting an hour, the child seemed much frightened. The attacks were renewed for several days, but soon ceased, and Marie

Jeanne was free from them from the 10th March to the 21st April ; from time to time she had simply a pain at the top of the head, a feeling of a ball rising from the pit of her stomach into her throat. Nevertheless during the last two months the attacks have returned stronger and more frequent than before ; we will describe them presently.

The day after that on which Marie Jeanne was again attacked, namely the 22nd April, the third child, Pierre, aged 11 years, had a fit similar to his sister's, and lasting four hours. Twelve days after he experienced a second attack of the same duration ; but contrary to his sisters, Pierre clearly remembered these fits. Since he has always been nervous and excitable, very irritable, and on the slightest provocation breaking everything within his reach.

On the 23rd April, the second daughter, aged 13 years, had a nervous attack resembling in all points that of her sister. Next day, that is the 24th April, the fifth child, Anne Marie, aged 6 years, suddenly became unconscious, had no sort of fit nor convulsions. She has had several attacks since, but they have never been of the intensity and duration of her sister's.

Beginning on the 28th, the sixth child, Toussaint, aged 4 years, had his right arm in a contracted condition for two days, but after disappearing for a day, this returned on the morrow, to cease definitely on the next day but one. This child has never exhibited the same phenomena as his brothers and sisters. His mother tells us he is simply exceedingly nervous.

As regards the youngest, a girl aged seven months, nothing abnormal was found. The acrobatic performances she was said to be troubled consisted of movements of the limbs caused by the sight of her sisters' peculiar antics. She seemed to take a delight in their odd gestures, these exciting and amusing her.

There only remains the fourth child, Jean, aged eight years, who went to service at a neighbouring farm on the 10th April last. Since then he has had several attacks of giddiness, and he has had to keep his bed on various occasions, as the least labour tires him. He has become a badly disposed boy, and often neglects the cows he is employed to watch. Latterly he has frequently mistaken the tail of a horse for its head, and has held it by the tail when he thought he had it by the bridle, and when the animal disobeyed his orders and did not advance to his liking, he struck it several hard blows until the horse gave him such a kick that kept him at home in bed for several days. Whilst at home at the Hotel Morin he felt none of the phenomena such as his sisters suffered from, but returning to his master's, he became very irritable and nervous, and wished to do only what was contrary to orders. This child had therefore only undergone a change of character, and from being well intentioned and submissive, had become naughty and passionate ; nevertheless he has had no fit. During our visit we saw all the children except Jean, and

of him therefore we shall say no more. With the exception of the two youngest, they were all very excited. On our arrival Marie Jeanne was hiding behind a piece of furniture, but seeing a scarf-pin with a red top in the tie of a friend who accompanied us, she quickly snatched it and hid it away in a cupboard, in which we noticed a quantity of roses. This girl has well-marked *clavus hystericus;* she has hyperæsthesia of right side, hemianæsthesia of the left, and pain in the ovarian region of the same side. Violet seems to her to be white, and green blue.

Louise has well-marked left anæsthesia. Violet appears to her white, and red yellow. Pierre was nervous and irritable, violently pushing away his brothers. Before long he climbed down the side of the well, and stopped at the level of the water, and in about a quarter of an hour crawled out again. Then by means of the mound and stable he clambered on to the roof, helping himself by the thatch covering these buildings; he then threw at us stones and pieces of mortar, which, with the straw, formed the roof of the house This was all we saw of the devil's dance said to have been executed on the chimney tops.

Since the end of May two of his sisters have been in the habit of descending into the well, and climbing on to roof, but they did not take the same means to perform these feats as their brother, but required the assistance of a ladder. About 1 p.m.—the usual time for the attack—the excitement of Marie Jeanne became extreme. In appearance she looked wild, her eyes brilliant and conjunctiva-injected, and panting for breath. She upset any one who approached her; her fingers were continually moving; she tugged fiercely at the sleeves of her gown, and threw her sabots savagely at a horse lying near. She complained of a feeling as of a ball in her throat, and of pain in the abdomen; she soon lost consciousness. Then she exhibited movements of circumduction of the arms, her body falling immediately afterwards into a state of tetanic immobility which lasted several seconds. A series of rapid vibrations then shook the body and limbs, followed by complete quiet. But almost immediately she became strangely contorted, rolled on the floor, seized a sack of corn, and hid her head beneath it. It was in vain to attempt to keep her in this position, for she struggled vigorously, and jerked her limbs violently about in all directions.

It is very difficult to attempt to describe these singular movements. One time she would be crawling on the floor; another time she would be leaping about shaking her head. Her respiration was gasping, interrupted by piercing cries during inspiration. One moment she was tearing her clothes, the next grasping her throat as if something were choking her.

Then the convulsions grew milder; her countenance, excited and covered with saliva, became more placid. She put herself in various postures, sometimes stooping down as if listening to a distant sound,

which she presently told us was that of a drum—of music ; sometimes she trembled, taking an attitude as if afraid, and hiding her head in her clothes. Now she heard chains rolling, guns firing, and saw the devil escorted by a troop of demons ; again she called on her dead godfather and grandmother, crying out, "I wish to go with you." She fancied she saw the sea filled with red fish. Such was the account she gave of her visions on awakening from the attack, which had lasted a quarter of an hour. After a time seeing the circumductory movements of the arms and the contortions coming on again, we compressed the left ovary; the attack ceased, and the patient soon regained consciousness, shedding tears copiously, and then described her visions to us. She complained of pain in the part of the abdomen we had compressed, and showered on us a heap of epithets evincing her disgust. The previous evening Marie Jeanne had had an attack, or rather a series of attacks, lasting from midday to four o'clock ; this was in fact the usual duration of her and her sister's attacks. Towards the end of Marie Jeanne's attack Louise, feeling one coming on herself, emptied a bowl of water over her head, and quickly recovered. The Morcets employed this plan to arrest the nervous crises of their children whenever they felt themselves attacked.

We ought to mention that these fits occur about the same time in all the children, but Anne Marie's are shorter than those of her older sisters. Finally, it is seen that all the symptoms we observed resembled in every way those we habitually find in severe cases of hysteria. As the report of the occurrences that have taken place at Pledran has spread so far, we think it should be attributed principally to the rarity of *Grande hystérie* in our country places, and also to the imagination of the inhabitants, which has immensely amplified the facts they have seen or of which they have heard. Again, the devil and the wizards are not the cause of the troubles we have described ; if they exist, it is in the imagination of those who would do better to drive them out of their children by a strict and firm treatment rather than by prayers and exorcisings.

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3. *German Retrospect.*

By William W. Ireland, M.D.

New German Periodical on Neurology and Insanity.

We have received the first number of the "Neurologisches Centralblatt," published in Berlin at the beginning of this year. It is edited by Dr. E. Mendel, whose book on General Paralysis is reviewed in the present number of our Journal. In the programme the editor expresses his design to endeavour to establish a closer connection between the anatomy, physiology, and pathology of the nervous system

and the medical treatment of insanity. The bridges connecting these departments of knowledge are frail and narrow. Dr. Mendel hopes to widen and strengthen them.

The Knee Phenomenon not Reflex.

The first number contains two original articles. Dr. A. Eulenburg seeks to determine whether the reaction of the tendo-patellæ be reflex or not, by measuring the time which elapses between the shock and the consequent movement. He finds the ordinary length of the latent period in healthy adults to be $\frac{2}{622}$ of a second $= 0{\cdot}03226$; when the latent period is abnormally long it has reached $\frac{3}{622}$ of a second $= 0{\cdot}0484$; and where the reaction is greatly heightened it has been found about $\frac{1}{622} = 0{\cdot}01613$. The length of the nerve tissue to be traversed to the spinal cord and back for a reflex action to the tendon patellæ is about 1 metre, and the rate of nerve conduction is stated by Helmholtz and Baxt to be 33·9 metres in the second, or about ·003 of a metre. Assuming these data to be correct, we have barely time for an impression to travel to the cord, arouse its action (for which some time must be allowed), and then return as a motor impulse in those cases where the latent period is $\frac{2}{622} = {\cdot}003226$, but where it is only $\frac{1}{622} = {\cdot}0016113$ there is not sufficient time for a reflex action. Hence he argues the patellar contraction cannot be reflex. Dr. Eulenburg has observed cases where with a latent period of $\frac{1}{622}$, the contraction was stronger and more prolonged than usual.

It may be asked, if the patellar reaction be not a reflex motion what is it? Dr. Eulenburg thinks it dependent upon the muscular tonicity of the quadriceps extensor cruris combined with a certain amount of quickness and integrity of the peripheral sensibility and conduction of impressions (Reizaufnahme und Reizfortpflanzung). Both these conditions are deficient in tabes dorsalis; the tactile sensibility is duller and slower, and the muscular tonicity is diminished through lesion to the posterior columns in the lumbar region of the cord. He thinks the existence of these two factors explains both the absence of the patellar reaction in tabes dorsalis and its presence in some rare instances. He himself has never seen a case of tabes dorsalis where the knee phenomenon was persistent, but he does not doubt the reality of those instances published by competent observers, such as Jewell, Bannister, Gowers, Sawyer, and Clifford Albutt.

Dr. Eulenburg has found in experiments upon dogs that the knee phenomenon disappears on the operated side after stretching of the crural nerve; but, as motor irritability and conducting power were found to be unaffected, this absence of the knee phenomenon, Dr. Eulenburg thinks, is to be explained by diminution in the muscular tonicity of the extensor quadriceps. He holds that the cremaster-reflex and reflex of the sole of the foot are undoubted reflex actions, and observes that they often persist in fully developed tabes dorsalis.

He explains the heightened tendency to patellar reaction after the administration of strychnin by supposing that it is due to increase of the muscular tonicity of the quadriceps from the stimulant action of the drug on the termination of the nerve-fibres distributed in it.

Successful Treatment of Tabes Dorsalis with the Interrupted Current.

Dr. Rumpf, of Düsseldorf, showed to the Medical Society of that town a man who had been troubled with symptoms of locomotor ataxia for eleven years. The symptoms are given in detail, and it appears, as Dr. Rumpf states, quite a typical case of tabes dorsalis, beginning with shooting pains in the legs, then weakness in walking, abnormal sensation in the feet and hands, tightness round the waist, and weakness of the bladder, passing at last into ataxia of the upper and lower extremities, with muscular force little impaired, but diminished sensation of the whole body both to impressions of touch and heat and cold. Dr. Rumpf first saw the man, who was forty years of age, on the 29th of July, and on the 29th of September following he was quite recovered and able for work. The only treatment used was the interrupted current, the positive pole applied to the sternum, the pencil in connection with the negative pole applied to the back and then down to the extremities. The same procedure was reversed, beginning with the back. The strength of the current used was sufficient when applied to the median nerve to cause convulsions. The applications lasted ten minutes, and were repeated every other day. The improvement began at once. The pains first disappeared, then the sensibility began to return, and the feeling of tightness round the waist was no more felt. As the ataxy continued, in the beginning of September Dr. Rumpf used the galvanic current, which he alternated with the faradic. The man was stated to have been for a year quite strong and able for work.

Ueber die Verrichtugen des Grosshirns. Gesammelte Abhandlungen von Friedrich Goltz, Professor zu Strassburg im Elsass, mit 3 Tafeln in Farbendruck. Bonn, 1881.

Dr. Goltz's book is made up of four papers originally published in Pflüger's "Archiv. für die Gesammte Physiologie," the first of which appeared in May, 1876, the last on 17th September, 1881. It is dedicated to his friends in England. The concluding treatise therefore appeared after the distinguished author had returned from the International Medical Congress at London, leaving the brain of his celebrated dog to be examined by a skilled committee.* As in giving his book to the world Dr. Goltz has not taken the trouble to recast his papers, it may be well to advise those who take up the volume for

* An account of the discussion before the Physiological Section and the preliminary report upon the brain of the dog are to be found in the "Transactions of the International Medical Congress," Vol. i., pp. 218-243.

scientific instruction that time and trouble will be saved by beginning to read it in the same way as a modern novel, in the inverse order, the last chapter first, and having progressed twenty or thirty pages towards the beginning, the reader will probably conclude that he is already in possession of all the real information the learned professor has to give him. If, however, he is fond of repetition, let him by all means begin at the beginning.

For the last ten years experimental physiology has been very busy in trying to find out the function of the different parts of the brain. The old method of simply removing those portions which could be reached from without had not yielded any new results from the time of Flourens, but it was thought that the discovery of Fritsch and Hitzig had really opened a new and surer means of investigation, and the results thus gained were confirmed by some pathological observations, though not entirely agreeing with others. Of late the conflicting experiments of Goltz have excited much attention. These are simple vivisections, but he has been much more successful in removing large portions of brain and keeping the animal alive. The experiments of Flourens were chiefly made upon pigeons. When large portions of the cerebrum were removed in the higher mammalia it was found impossible to save the animal from bleeding to death. The importance of Dr. Goltz's results depends upon his success in keeping alive the animals experimented upon. His vivisections have been exclusively performed on dogs. He trepans the skull in one or two places, and washes away the portion of the brain which he wishes removed with a jet of lukewarm water, or destroys it with a boring machine made for the purpose. He then carefully replaces the integuments, leaving a small issue, and applies effusions of cold water to the head. In this way he is enabled to escape inflammation; he even says that none of the animals operated on by him had fever or increased temperature. After severe operations the dogs often required to be artificially fed for many days, and though many of the animals experimented upon have died from one cause or another, he has succeeded in keeping others alive after removing larger portions of the cerebrum on either side than has been done by any previous experimenter. The consequences which he deduces from these experiments are, he considers, of great importance. He boldly claims to have swept away all the conclusions recently reached about the division of the brain into motor or sensory areas, and to have brought back our knowledge very nearly to the old view of Flourens, that the cerebrum was one organ having one function throughout. The professor hopes to see the day when the new-fashioned divisions of the cerebrum into motor and sensory centres will be consigned into the same grave in which the localizations of Gall so softly sleep. Alas, for our supposed progress in cerebral localization!

As the result of his numerous experiments, Goltz found that the degree of impairment of function depended upon the amount of brain

substance removed, and not upon the situation of the lesion. Whether a portion of the brain be removed from the so-called excitable zone of Hitzig or from the occipital lobe, the functional disturbance was found to be of the same character. The first effect of removal of a portion of the cerebrum in the dog was found to be anæsthesia of the opposite side. It is probably owing to this anæsthesia being of short duration that it has been little noticed by previous observers. It rapidly passes into a dulness of sensibility which continues to improve, though probably it never entirely disappears.

Goltz is very emphatic in his statements that he found that no extirpation of the parts called the motor centres, nor any other portion of grey matter, could cause permanent paralysis to any muscle in the body. It is true that after removal of a portion of the hemisphere the animal was found to be paralysed on one side ; the paw, for example, would be quite limp and useless, but this condition slowly passes away. At first the dog halts and puts the dorsum of the paw on the ground, and in the course of time he plants the sole of the foot down firmly, though still unsymmetrically. The dog which has suffered the removal of a considerable portion of the hemisphere never seems entirely to recover the same power over the limbs. There is always a tendency to slide, a certain awkwardness on the affected side, which, however, is often so slight as to escape notice in a superficial examination. After the removal of a portion of the brain, the ear is observed to be motionless or weak for some time on the same side as the cerebral lesion, but this soon disappears. The motions of the tongue are not affected.

Goltz has very carefully examined the disturbances of vision following the removal of a portion of brain substance. He finds that the vision of the eye on the opposite side is always injured after removal of a portion of the hemisphere. If a considerable portion be removed, the dog becomes blind for some time after. His experiments are numerous and carefully detailed. A dog so treated could after a while see enough with one eye to avoid obstacles and distinguish people at a distance, or discern bits of flesh placed near, but was unable to calculate distances so as to leap from a chair. In one case, finding it difficult to blind the sound eye, which of course interfered with his experiments, Goltz removed it altogether, and thus, I think, introduced a new complication, for the sudden removal of a healthy eye, at least in the human subject, often very much injures the sight of the other. Goltz, however, proved by careful observations that a dog, which had suffered the loss of considerable portions of the brain on both sides, was for a time reduced to a condition approaching total blindness. He could not see pieces of flesh held before him, but could avoid bodies placed in his way when they were large and prominent.

Lussana and Lemoigne have already made a singular observation. They removed the left hemisphere and the left eye in a pigeon, and

found that the bird, while it did not notice food thrown before it, nor show any fear of a person approaching it in a menacing attitude, yet could avoid obstacles placed in its way. Their explanation was that the impressions of vision were no longer the object of consciousness owing to the removal of the left hemisphere, the right eye having no relation with the remaining hemisphere on the same side. They thought that the bird avoided obstacles without any consciousness by pure automatic action through the influence of light entering the right eye, and acting through the uninjured cerebral ganglia and cerebellum. In such experiments, as Dr. McKendrick has pointed out, there is always a possibility that a portion of the hemisphere remains, as it is impossible in the pigeon to draw the boundary between the cerebrum and the corpus striatum. He found that when, to give certainty to the result, a portion of the corpus striatum was also removed, all indications of consciousness were suppressed. McKendrick observes that in the pigeon neither the removal of the anterior part nor the posterior part of a hemisphere interferes with sight, though the removal of one cerebral hemisphere is followed by loss of vision on the opposite side.

Goltz, while disposed to accept the automatic character of the motions in the pigeon, does not think that the explanation of Lussana and Lemoigne will hold good with his own experiments on dogs, since in this quadruped each optic nerve is in connection with both hemispheres, so that the stimulus of light in the right eye must arouse the sensation of light in the right hemisphere as well as in the left, and *vice versâ*. He thinks that the dog which has suffered the removal of a portion of the hemisphere has a much impaired sense of colour. Everything appears grey or cloudy to the eye. This will explain all the observed facts. A dog in this condition would not distinguish a piece of flesh from a stone, or a whip from a branch of a tree, or any particular individual, but would be able to recognise a body when moving, and distinguish objects sufficiently so as not to knock against them. When Hitzig and Ferrier found that animals, after certain lesions, had become blind on the eye of the opposite side, they said the truth, but their opponents had certainly some reason for denying the correctness of their observations, for the blindness only lasted a short time. They only asked, Is the animal blind, or does it see? and when they found that it saw or was blind they did not trouble themselves any further.

The author makes himself merry with the contradictions of different investigators who place their visual centre in widely apart gyri. Munk's visual area gets larger and larger in every paper he writes, and what with Ferrier's centre and Lautenbach's centre, and the corrections of Luciani and Tamburini, a great part of the brain is under suspicion of being a centre of vision! All these gentlemen, Goltz remarks, are right, and all are wrong. The visual area is really as large as all their visual centres together, and larger too, for if the re-

maining portion of the grey matter which has not yet been put down as a centre of vision were removed, a like disturbance of sight would be noticed. The professor has extirpated all their so-called visual centres without inducing permanent blindness. He finds that injury to the occipital lobe causes a greater disturbance of vision than injury to the frontal lobe, and if the parietal lobes be also removed, the injury is greater still, but the animal does not become blind. He found it impossible by the removal of any portion of the grey matter of the hemisphere to induce total deprivation of any sense; hence he concludes that no portion of the cerebrum is devoted exclusively either to seeing, hearing, tasting, or feeling.

In observing the symptoms after removal of portions of the brain, the professor thinks it of the utmost importance that we should distinguish between those lesions which pass away after a time and those which seem permanent. The permanent lesions he considers to be a certain dulness in the sensation of touch, a diminished power of vision, and some awkwardness in the movements. Hitzig and his followers, when they found after ablation of the motor centres that the temporary paralysis passed away, tried to account for it by the supposition that some other part of the brain took up the function of the removed part, but Goltz not unnaturally treats this explanation as a virtual surrender of the theory of motor centres.

Ferrier and Soltmann have suggested that when one hemisphere is injured the other hemisphere may take up the functions for both sides of the body. There is no doubt, Goltz remarks, that each hemisphere stands in connection with all the muscles and sensory apparatus of the body. He has thus nothing to say against the view that, after injury to one side of the brain, the other side takes up more vigorously its hitherto neglected part, but Ferrier's idea that the so-called symmetrical centres are needed for the injured parts of the opposite hemisphere is contradicted by facts. Removal of a portion of the cerebrum always causes injury to the opposite side. In two experiments he found, after a lesion to the left hemisphere, the usual symptoms on the opposite side of the body, from which the animal slowly recovered. After this recovery he removed a portion of the right hemisphere, but instead of both sides of the body being affected, only the left side was affected by the lesion. This, of course, would not have taken place if the recovery on the right side had been owing to the left side of the brain taking up the function of the injured hemisphere. He remarks: "The recovery of lost functions is not owing to the formation of new centres in the hemispheres to replace those destroyed or removed, but owing to centres still uninjured again resuming their suspended activity. Simple mechanical movements like walking and running which are injured by removal of portions of the brain are not dependent upon the integrity of the hemispheres, but have their centres in the cerebellum and its connections."

The professor explains all the appearances after injury to the brain as the result of inhibitory action resulting from the wound. When the spinal cord of a dog is cut through, the hind legs, bladder, rectum, and erectile power seem to be quite paralysed.

(*To be continued.*)

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting was held at Bethlem Hospital on Friday, 28th April, the President, Dr. D. Hack Tuke, in the chair.

Dr. W. M. Young, of the Suffolk County Asylum, was elected a Member of the Association.

The PRESIDENT referred to the attempted murder, on the 16th March, of Dr. John P. Gray, Superintendent of the Utica Asylum, N.Y., as reported in the "Utica Morning Herald," from which it appeared that on the evening in question, a man entered Dr. Gray's office and deliberately fired a pistol shot at him, wounding him badly in the face. Dr. Gray was, however, going on favourably, and, it was hoped, would make a good recovery. The Council thought it only fitting that some reference should be made to it at this meeting, and that this Meeting of the Association in London should express their feeling upon the matter. Dr. Gray was well known as the medical superintendent of the New York State Asylum, and as an expert. He had, in fact, only just returned from Washington, after paying attention to the new phases of the Guiteau case. Dr. Gray was also the editor of the "American Journal of Insanity." He was personally known to many on this side the Atlantic from his having visited England a few years ago. He (the President) concluded by proposing the following resolution:—"That this meeting of members of the Medico-Psychological Association desires to express to Dr. Gray, of the Utica Asylum, N.Y., their deep regret that his life should have been endangered by an assassin, and their congratulations on his escape, with the hope that he may long be preserved to perform the duties of his office."

Dr. SAVAGE said that it would be quite unnecessary for him to say more than that he had great pleasure in seconding the proposed resolution. He knew Dr. Gray to be an enthusiastic representative of their branch of the profession; a man who had done thoroughly good work; and one had a strong fellow-feeling for a man who, while doing his work, suffered through the malice of an insane person. It had always seemed to him (Dr. Savage) surprising that more of them did not get injured by patients.

The Meeting thereupon unanimously adopted the resolution.

Discussion was then resumed upon the question of

INSANITY AS A PLEA FOR DIVORCE.

Dr. SAVAGE said that there were three or four points of special interest under which the question of divorce and insanity could be considered, and, as it happened, three or four cases had recently come under his notice in which the question was whether insanity should be a bar to marriage. The first class was represented by two cases. In one a woman had been married to a man and had not allowed the marriage to be consummated because she felt that she

was unnatural, unlike other people—she was, in fact, suffering from ordinary emotional insanity of the melancholic type. She had a disturbance on the emotional side which had been frequently seen. She declined to allow her husband to have connection with her, and he separated from her and instituted a suit for divorce; and after a very short consideration the judge decided that the contract had never been completed, and that therefore there was nullity of marriage. In another case, the insane person was a man who, on the day of his marriage, heard a voice from heaven telling him he was not to touch his wife, and he obeyed it. Other voices told him to refrain from food, and in consequence of that he was sent into Bethlem. It was probable that, in this case also, a suit would be entered for nullity of marriage. In those two cases the whole thing was simple enough. A contract had been attempted to be entered into by people who were not capable of contracting. The law had already decided that persons of unsound mind could not enter into a contract, and if it could be proved that they were of unsound mind at the time of marrying, the marriage was null and void. Take a second class (they had an example at Bethlem) where the marriage had been consummated, there had been no children, and there was evidence that some time after marriage the patient became insane, and he was now an incurable lunatic. That case was a kind of connecting-link between those of the first class, where the marriage had not been consummated, and where it was not divorce but nullity of marriage, and those cases which they had further to consider. In these intermediate cases lawyers might say that the insanity had been condoned by consummation of marriage. In the third class, of which they happened at present to have no example, a person might be undoubtedly insane as revealed by subsequent evidence, but he may have married and begotten children, and then the plea of insanity might be set up. As far as he knew, a case of this sort had not been tried, but it was a difficult question whether the law under any circumstances should consider that as a plea for divorce when one or more children had been born after it was well known that one of the contracting parties was insane after the contract was entered into. They had then in the hospital a lady who had been found guilty of adultery, and her husband obtained a divorce from her. She had two or three children, and belonged to a very good family. He (Dr. Savage) was convinced from evidence got from herself and her friend that that unfortunate woman was insane when she committed adultery. In that case it seemed to him to be just, if, on the one hand, insanity was to be a bar to marriage, that it should also be a bar to divorce. Many of his friends, when speaking quietly of this case, had said, "Well, your ideas seem very strange. On the one hand you hold out the prospect of future legislation to allow confirmed incurable insanity to be a plea for divorce, and on the other hand you would make insanity a bar to divorce." Well, it was so, but he saw nothing inconsistent in it. It was not simply the question of husband and wife. The woman was displaced and disgraced. The children were disgraced as well. If that woman had been decided to be a lunatic and the divorce case not proceeded with, she would have been shown to have been a lunatic, and that would have been stigma enough thrown upon the children; but in this case insanity and adultery were both visited upon the unfortunate woman, when the insanity was the only fault or failing. One felt great hesitation in even raising such a question, and he only did it because he thought that in the pursuit of truth one must not mind contingent dangers. He knew that the plea of insanity had been, as it were, torn to shreds—that every ruffian who ought to have been hanged was attempted to be got off on the plea of insanity. It was admitted that crime and insanity were allied. He would be the very last in the world to wish to see divorce cases barred by this frequently; but there were some cases in which justice should step in, and in which there should be a bar to the divorce in consequence of the undoubted insanity of the delinquent. It was unnecessary for him to speak of the many cases of erotomania, such as the case he might refer

to of the wife of an officer left in England, he being in India; if a woman like that got insanity, she was almost sure to get wrong. The only other question, and that most worthy their discussion, was the question whether any forms of insanity, and what forms of insanity, should be considered as those to enable the procuring of a divorce. It seemed extremely hard, certainly, that men or women should be tied to mates who were incurably insane; but, on the other hand, people would say that it was certainly hard that a man or woman should be tied to a mate who was incurably bad-tempered, incurably paralytic, suffering from some terrible skin-disease or chronic asthma, making day and night hideous. He would then ask the opinion of those present, ought or ought not any forms of insanity to be considered as sufficient ground for divorce? And, in the next place, who ought to judge of that? And, in the third place, what forms of insanity ought to be so considered, and whether it was possible to consider the question as one which was not a mere problem of pathological policy, but one of practical utility. He did not believe that civilization had sufficiently advanced to allow such a statement as he suggested. He thought it would be better for a certain number, but as it would be for the minority, and as the legislation was to be for the majority, he was inclined to think that at present they were not in a position to recommend divorce on any plea of insanity; but he should like to hear the opinion of those present on some or other of the points he had suggested.

The PRESIDENT said that the two broad questions put before them by Dr. Savage for discussion were as to the effect of insanity prior and subsequent to marriage. He would suggest that, in the first instance, members had better direct their attention to the effects of insanity before marriage or at the time of marriage, and afterwards consider the other question of the effect of insanity subsequent to the marriage as a plea for divorce. The two questions were totally distinct.

Dr. SEATON said that he had thought a great deal upon the subject, and it was clear to him that there could be no difficulty in coming to the conclusion that insanity should be a cause of divorce. Not only should it be a cause of divorce where it could be shown that one of the individuals was insane before marriage, but he thought it should be so in any case of insanity; and his reason for it was the authority of the Church itself. He would just read that which was familiar to most of them as to the reasons for which marriage was instituted, The Church said—First it was ordained for the procreation of children, secondly, for a remedy against sin, and thirdly for the mutual society, help, and comfort, that the one ought to have of the other. He would now give a case illustrating his view. A gentleman, a medical man, married a most talented lady—both young. In that case he should probably have Dr. Savage with him, because unquestionably the lady was of unsound mind, although it was never admitted, and her family accordingly took every possible means to conceal her eccentricities from the gentleman. However, she bore four children, and of the four children there was only one that did not give positive evidence of being tainted; and ultimately her conduct became so extraordinary that she was obliged to be placed in an asylum. Now, in a case like this, the considerations failed in every particular. The procreation of children was a positive wickedness, because it was simply bringing insane children into the world. Then, as a remedy against sin—continency was admitted to be a gift, and marriage to an insane wife defeated that consideration; and as to being mutual helpmates, that failed also. Wherever it could be shown that the insanity was incurable the husband or wife should be entitled to a divorce. There was no difficulty in making provision for the children, or for the maintenance of the wife. Surely, if necessary, the legislature could devise means of protecting the children. He remembered that when he was a young man, cases were submitted to him for his opinion as to whether, in such and such a case, the disagreeable symptoms manifested would not subside if the woman was married, and he must say that,

on more than one occasion, he suggested that it was exceedingly probable, but he would most certainly not make such a suggestion now, having seen the consequence. He thought it scarcely possible to doubt Dr. Savage's first point, that where it was proveable that insanity existed before marriage that that should be a plea for divorce, and he thought it ought to be so in any case for the reason he had given, namely, that the objects of marriage, as laid down by the Church, had wholly failed.

Dr. SAVAGE asked who would be made the judge in such cases, and Dr. SEATON replied that there would be the same mode of inquisition as at present; if necessary, there should be fresh legislation.

Dr. GARDINER said that he perfectly agreed with Dr. Savage's concluding remarks, viz., that the time had not yet come when the question of divorce occurring after marriage could be legislated on. The subject was in a very undefined state, not only as regards their own profession, but also with the judges and the legal authorities of the country. All law had a beginning, and no subject was ever legislated on at first perfectly. Legislation was attempted and then improved upon, until a nominally perfect system was obtained; and if legislation should take place upon that subject, he thought that it should commence in this way—that a petition being served on a person, if she (because in the majority of cases it would be by a husband upon a wife), if she were unable to reply to that petition, and if, again, the friends should be indisposed to reply, then, under these circumstances, he thought the inquiry might be safely held, and a due authority allowed to adjudicate in the matter; but, even here, he would not allow such a trial or proceeding to take place until the patient had been insane for at least ten years, and certified to in a proper certificate.

Dr. WILLETT referred to a well-known case in which insanity was pleaded. Almost immediately after the marriage the husband left his wife, quite a young girl, and went abroad. She was left entirely to her own devices, and during that absence she was said to have committed adultery with several persons. Some few months afterwards she was confined, and then confessed she had committed adultery. He was asked to give evidence, but declined. He was of opinion that she was of unsound mind, and that it was a case produced by extreme excitement, brought on by having married a man who had failed in his duties and left her, and that it would ultimately prove that she would become demented, which came true. They obtained a divorce almost directly.

Dr. RHYNER suggested whether, in that case, it was not possible that the insanity might have resulted from the mental stress of her having committed herself in such a way, or was the adultery the result of insanity.

Dr. WILLETT said there was no insanity in the family.

Dr. WEATHERLY said that he happened to have been lately travelling in Saxony, and had inquired into the state of the law there, as the President had referred to it at their last meeting. Ten years ago the law was simply monstrous. It allowed the insanity to step in in this way:—If any medical superintendent of any asylum or connected with an asylum gave a certificate to say that such and such a person was of unsound mind, and not likely to recover, that was thought quite enough to allow a divorce to take place. The law was now altered somewhat, but not very much. In Saxony it now stood that in the event of any person wishing to get a divorce on the ground of insanity, the insane person must be sent to a state asylum, and must remain there for three years. At the end of that time, if the medical superintendent chooses to give a certificate to say that it is a chronic case, the divorce is allowed. After coming from one of the asylums, he was talking with some friends, and learnt from them that an instance of the fallacy of that law had recently happened. A gentleman married a young wife, and within a short time after the marriage she became insane. He asked the lawyers' opinion, and they advised that she should be sent to a state asylum, and after the three

years the certificate was given. They then transferred her to a private asylum, and she was there for another three years. In the meantime the gentleman had got engaged to another girl, and the marriage had been arranged to take place, when he received a letter from the superintendent of the private asylum to say that his wife was much better. She very rapidly recovered, and he had to drop the engagement with the other young woman, and marry the first one again. Looked at in the light of this case, were they capable of judging as to incurability? If not, he thought the insanity should not be a plea for divorce.

Dr. RAYNER said that where the insanity of one of the parties was unknown to the other it certainly appeared to him that it should form a fair subject for divorce. Where, however, a person knew that he was marrying an insane person, he thought it was quite a question whether the marriage should not stand on that ground. The law allowed a person who had hallucinations to make a will, and to commit other legal acts, and he did not see why the law should not permit such a person to legally marry. They all knew of a case not long since of a gentleman who manifested his insanity to the world, and who was afterwards married; and he might of course have convalesced since or remained insane, but it would be very unfair if, after several years of cohabitation, his wife were to turn round and plead insanity as a ground for judicial separation or nullity of marriage.

Dr. BOWER said that in one case which had been referred to, and which was that of an unfortunate member of their own profession, he had been certainly of opinion that the man was insane before marriage, and if there had been any action taken at the time, their opinion would have been pretty strongly expressed upon the point (it was simply between Dr. Tuke and himself), but they thought the man would get well. The case turned out badly instead of well, and the time went past for any inquiry, the facts were obscured, and after the lapse of a few years certainly no law court would have received them. Referring to insanity and other diseases as a bar to marriage, epilepsy appeared to him to be a subject presenting itself to one's mind.

Mr. C. M. TUKE said he should like to mention a case. It was that of a gentleman now suffering from the very acute form of general paralysis, who managed to get married before a registrar without, it is alleged, having shown any symptoms of mental disorder at the time; and this only occurred four days before his certificates were signed, and some time after his mental state was quite well known to others about him. This was a great hardship, because the marriage was very detrimental both to himself and his family. He was now, after a short time, suffering from all the acutest symptoms, and perfectly incoherent. The remedy in this case seemed to be to apply for a writ *de lunatico inquirendo*. They would have to bring forward evidence of the mental symptoms before marriage, for it seemed that this was necessary even in so clear a case; and then, of course, after that, the regular proceedings in the divorce court would have to be taken in order to annul the marriage. The case was very much like that which Dr. Savage spoke of at the last meeting, the only difference being that the gentleman could not be put in the witness box, and would have to be represented by his committee. In regard to Dr. Savage's suggestion as to what forms of disease would be most likely to stand as a plea for divorce, perhaps general paralysis would seem to be the most important.

The PRESIDENT said he thought there was a general concurrence of opinion in favour of Dr. Savage's views so far as he had expressed any definite opinions, and on the second branch of the subject, that of the effect of insanity subsequent to the marriage, there appeared to be, with the exception of Dr. Seaton, the same agreement. They certainly had not at the present time arrived at a state in which they could carry out a similar law to that in force in Saxony. Having at the last meeting entered at some length into

the question, he (the President) would not say more than that the meeting was much indebted to Dr. Savage for having brought the subject forward (applause). The President said it was announced on the agenda paper that Dr. Weatherly would bring forward a resolution that "Single Cases of Lunacy in Private Dwellings should be better supervised," but before this subject came forward he would remark that on considering the subject in the council it had been felt that it was hardly one upon which that meeting, the quarterly meeting of the Association, could very properly pass any formal resolution. They could not properly commit the whole Association to any particular course, and therefore it should be brought forward, if brought forward at all, at the annual meeting. At the same time it was a subject which might very properly be discussed at the present meeting, and he would call upon Dr. Weatherly to introduce it.

Dr. WEATHERLY said that he felt sure that lunacy reform was what they were all continually striving after, and it seemed to him to be one of the great faults of the present day that instead of starting that reform themselves they left it to be started by outsiders, by persons who knew nothing about it, and who endeavoured to bring about reforms which scientific men were in duty bound to oppose. It seemed to him that if there were distinctly necessary reforms in regard to lunacy, it would be better that those reforms should be started amongst themselves, and that the general public ought to know it. Now it seemed to him that the resolution he had intended to propose was a most necessary one. They had all of them read the long discussion which recently took place in the House of Commons. Proper supervision was allowed to be a most essential thing, and if this was the case in regard to asylums, it was, unfortunately, more so in regard to the treatment of the insane in private dwellings, for if there could be gross cruelties or anything which really required searching inquiry in asylums, surely it was much more likely to be the case in private dwellings. What supervision was there at the present time in regard to private dwellings? The Commissioners were required to come down once in six months, but they did not always do that. He had had a patient in his care for ten or twelve months, and no Commissioners had seen that patient at all; therefore their supervision was really and truly next to nothing. In regard to the other supervision—medical visitation—namely that a medical man should visit the patient once every fortnight, in many cases the Commissioners allowed that visit to be at less frequent intervals. He had to sign a book, which book was fuller than it used to be, but he was chosen as a friend, either the medical man of the family, or the brother practitioner of the medical man, and it was certain that unless he saw anything very wrong indeed he would not say anything about it; and therefore many persons totally unfit to take charge of lunatics could do so at the present day. He mentioned his views, and held that if it were necessary for a person to obtain a license for taking two patients, it was undoubtedly necessary for a person to hold a license for one. He trusted that the Association would agree with him in saying that greater supervision was absolutely essential in regard to single cases of insanity. No one would deny that considerable good was done in private care in many cases, and that there might be some chronic cases who might be happy in private treatment; and then again there might be many cases in private treatment that ought to be in public asylums. He trusted that the Association would support him when he brought his resolution forward at the general meeting, as he certainly should.*

Dr. SEATON said that there was a great cry for lunacy reform; but there

* Dr. Weatherly's paper read at the previous meeting was not printed in the Journal, having been published by him in a separate form under the title of "The Care and Treatment of the Insane in Private Dwellings." Griffith and Farran, St. Paul's Churchyard, London, 1882.

was this remarkable fact which seemed to have been entirely ignored—that, in the exhaustive inquiry of Mr. Dillwyn's Committee, there was not proved one single case of abuse of the laws, not one case of ill-treatment. Notwithstanding this, the cry still went on, and they let it go on.

Dr. WEATHERLY remarked that the Commissioners had often admitted the facts he had mentioned. Lord Shaftesbury had written him several letters on the subject, and quite agreed with him that there was a great need for reform in regard to private dwellings.

The PRESIDENT said that although the members were no doubt well acquainted with the state of the law in regard to visiting single patients, he would just recall their attention to the fact that in the Act of 1845 a private Committee was appointed, in reference to which it was said, "It shall be lawful for any one member of the said private Committee, on the direction of such committee, or of any two members thereof (of whom the one member aforesaid may be one), *at all reasonable times* to visit every or any unlicensed house in which one patient only is received as a lunatic." The appointment of a private Committee was rendered necessary by the strong feeling which at that time existed against anything like inspection of houses where there was a single patient. In the Act of 1853 (16 and 17 Vict., c. 96), that private committee of Commissioners was abolished, and how were its functions to be performed? A clause enacted that all the powers vested in, and all the provisions of the former Act applicable to the said private Committee, or one or two members thereof, shall be vested in and be applicable to the Commissioners, or one Commissioner or two Commissioners as the case may require. Now, the former Act having declared it to be lawful for the private Committee of Commissioners to visit single patients at all reasonable times, the same lawfulness—neither more nor less—applies to the Commissioners. It is simply lawful, and no particular time, as "six months," was specified. Perhaps Dr. Weatherly could refer to something more definite?

Dr. WEATHERLY said he was perfectly certain he was right as to the Commissioners visiting once in six months. It was in the Act, though he could not cite it just then.

Dr. BOWER said that he had last year read a paper before the South Midland Branch of the British Medical Association upon the subject of non-pauper lunatics, and he then looked into the law very particularly as regards the point in question, and the result which he then asserted was as follows:—"Our supposed lunatic may be placed under certificate, as a single patient, in the unlicensed house of a medical man or layman. (No medical man can receive into his house, under payment, any non-certified lunatic without rendering himself amenable to law.) The Commissioners in Lunacy have the power, but are not bound, to visit these patients; and the magistrates have no power of inspection, nor, in fact, any jurisdiction." At the end of the paper he said, criticising Mr. Dillwyn's Bill, "This Bill might fitly order the compulsory licensing and inspection of houses where single patients (on account of whose maintenance money is paid) are detained, whose case it entirely overlooks, and which, being unlicensed and practically unsuspected, remain open to abuse; and it might empower the Lord Chancellor to appoint deputy or assistant Commissioners to undertake that duty, as is at present done in Scotland, with the best results."

Dr. WEATHERLY referred to the paragraph at page 107 of the 35th Report of the Commissioners in Lunacy, where it was stated, "This leaves as patients to be regularly visited by members of this Board 313; namely, 120 males and 193 females." He believed it was once in six months.

The PRESIDENT said that although it was not in the Act, the Commissioners might have made the rule themselves.

Dr. WEATHERLY observed that if that was the case, it strengthened his argument.

The PRESIDENT said that his own feeling was that it would be a great pity to have a license for one patient, because it would have the practical effect of increasing the difficulty of placing patients under private care. As regards supervision, he was of opinion that more compulsory supervision of single cases might be desirable, and that a section like that which he had read was extremely lax in merely saying, "it shall be lawful," without specifying any definite time. He supposed that the reason was the strong prejudice to which he had already referred against the visitation of private houses from the desire of avoiding publicity.

Dr. GARDNER said that he could not quite approve of the remarks as to the want of supervision. He had had considerable experience with private patients, and he thought that the supervision at the present time was excellent and efficient. As a matter of fact, within the metropolitan area Commissioners did visit private patients once in six months, and they not only visited but made a report to the Board, which report was copied and sent to the friends of the patient. He could not see how they could have anything more effective than fortnightly visits of a medical man, which, in the case of many medical men receiving patients, and who were personally known to the Commissioners, were sometimes arranged for every three months instead of a fortnight, but of course that was only where they were thoroughly known to the Commissioners. There were a great many patients who could be better treated in asylums, but there were also many who were better treated out of asylums. In a case well known to the family physician, who knows the family history, and who knows more than any stranger can know of the disposition of the patient, that medical man would be able to treat the patient better than a stranger. Then, again, remember the enormous expense already attending the treatment of private patients. There were some people who, to avoid publicity, would wish to have their friends treated privately. As it was, the expense was very great. There was not only the charge of the medical man for detention, but there was the charge of visiting by the medical officer, and there was also the charge for extra attendance and nurses. His own feeling was that the present restrictions were ample, but if anything should in future be thought necessary to be done, the question of expense should certainly enter into consideration.

The PRESIDENT said that he thought there was a great distinction between the actual visitation which took place and that which the law required.

Dr. GARDNER—Quite so; but the Commissioners having the power of regulating their own proceedings, I do not think they are likely to visit less often.

The PRESIDENT—But in some cases it has been mentioned that they have not always carried out that rule.

Dr. GARDNER—I have not myself known it in the metropolitan area.

Dr. WEATHERLY said that his house was licensed one year, and he had only had one inspection by visitors. As regards Dr. Gardner's observations as to expense, he might say that not long ago he (Dr. Weatherly) was asked to take a lady patient whom it was wished to remove from an asylum. He consented to do so. It afterwards transpired that when the proprietor of the asylum, who was receiving £800 a year, heard that it was intended to place her under private treatment at £450 per annum, he said, "Well, then, I will take her at the same money," and she remained there.

Mr. C. M. TUKE remarked that the fact that the Commissioners did visit, decidedly pointed to the fact that they admitted such an inspection to be desirable.

Dr. WEATHERLY said that in the Commissioners' Report a little while ago, they said that they were utterly unable to visit single patients properly. He hoped that at a future time there would be inspectors, or sub-inspectors, who would be able to do the work which the Commissioners were not able to do now. He had upheld private treatment, but in doing so he pleaded that there

should be better supervision. A washerwoman could take a patient now; any one could. It was perfectly wrong.

The following papers were then submitted by Dr. Bower and Dr. Boyd.

Dr. Bower's paper was "On Employment in the Treatment of Mental Disease in the Upper Classes." (See Original Articles.)

Dr. Boyd's was "On the Laws relating to the Admission of Pauper Lunatics into Asylums," and, being short, we subjoin it:—

In a medical point of view the Pauper Lunacy Laws have done more harm than good, by overlooking the prompt treatment *primarily* required for the recovery of patients in a state of delirium, and of making it *secondary* to the legal question of insanity and custody in an asylum, a question which cannot always be so readily determined. In the meanwhile, as several days are permitted by the Act to elapse before the relieving officer of the parish is required to remove the patient to the asylum, and no adequate provision is made for the immediate treatment, the case may have fallen into a hopeless state as regards recovery, and, from the annual reports of public asylums, this sad event very frequently happens.

Judging from my experience of several years in the treatment of recent cases of insanity in the Marylebone Infirmary, and my subsequent experience in a county asylum, I believe the recoveries of acute cases would be double if the delay required in obtaining the order of admission to the asylum were not necessary. To effect this desirable object, I suggested that the certificate of the parish doctor should alone be sufficient for the reception of the patient for immediate treatment in the asylum, and that the subsequent detention there should afterwards be determined on and sanctioned by order of one of the Visiting Justices, merely reversing the present plan by placing the patient *primarily* under medical treatment with the best prospect of recovery, leaving the legal question, *secondarily*, as to detention for after-consideration. This proposal, made at the annual meeting in 1880 of the Medico-Psychological Association, met with unanimous approval.

The certificate of the parish doctor for the admission of a patient to the county or borough asylum should state as fully as possible the facts observed, and ascertained by him from others, relative to the history and mental state of the patient; the fee for the medical certificate should be paid by the clerk of the asylum, and charged by him to the union.

Public asylums originally intended as separate hospitals for the treatment and care of insane paupers, distinct from sick paupers, and placed altogether on a distinct and more liberal management than the comparatively stingy arrangements under the Poor Law for the sick in workhouse infirmaries, has had the effect of making the asylum the desired haven of all paupers who can by any possibility be transferred from the workhouse. Under the Act this transfer is frequently made by the workhouse officials themselves, the order of

a magistrate not in all cases being required. Asylums have thus gradually become, after many successive additions, virtually workhouse infirmaries for their respective counties, and can no longer be considered hospitals for the cure of the insane, their great size and number of inmates rendering them past the management of one individual, who, in many instances, is unable to recollect the names, much less the cases of all his patrons. The acute cases, whilst in a curable stage, are utterly lost sight of in the crowd of incurables amongst whom the lot of the curable is now cast.

My friend Dr. Manley, of the Hampshire Asylum, has suggested that instead of making an addition to that immense establishment in the Isle of Wight, patients should be provided for near the workhouse, and that both institutions should be placed under one superintendent, by which means the risk and expenses of a passage to the mainland would be saved, a most desirable object also for friends who may wish to avoid even so short a sea passage.

The enormous expenses entailed on ratepayers from the constant enlargements of pauper asylums would be lessened, and a better classification of cases obtained, by utilizing for chronic cases some workhouses and prisons, where available.

The workhouse officials having in many instances got the troublesome aged and helpless paupers transferred to asylums, it would be much better if medical relief as a whole were placed under the same visitors as asylums and workhouse infirmaries, entirely under their control—the sick and insane poor under one management.

There is no just reason for making a difference as regards expense in the treatment of the sick and insane pauper. Both should be treated with equal liberality; of the two indeed the sick pauper is likely to become the more useful member of the community, and ought at least to be as well cared for as the insane, which has not been the case.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting of the Medico-Psychological Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on Wednesday, 8th May.

There were present: Drs. Ireland (chair), Gairdner, Campbell, Clark, Fraser (Paisley), Carlyle Johnstone, Mitchell (Cupar), Rutherford, Batty Tuke, Yellowlees, &c.

The following gentlemen were duly admitted members of the Association:—

John McNaughten, M.D., Medical Officer General Prison, Perth.
Dr. Huxtable, Assistant Medical Officer Roxburgh District Asylum.
James Hyslop, M.B., Assistant Physician Royal Edinburgh Asylum.
David Lennox, M.B., Assistant Physician Royal Edinburgh Asylum.

Dr. Carlyle Johnstone read "Notes of a case of fæcal accumulation of 14 years' standing with enormous distension of the large intestine." The ascending colon, which was exhibited measured 26½ inches in circumference, and the rectum, which during life was tightly packed with hard fæces, occupied the entire pelvic cavity. (See Clinical Notes and Cases.)

Dr. R. B. MITCHELL read a paper entitled "Case of general paralysis with aphasic symptoms and extreme ataxia," remarking that he had put a mark of interrogation after the title, as he was not sure that the case was really one of general paralysis. (See Clinical Notes and Cases.)

DISCUSSION ON DR. MITCHELL'S PAPER.

The CHAIRMAN—Our thanks are due to Dr. Mitchell for his well-written and carefully considered paper. The pathological examination especially shows great research. Dr. Mitchell must have cut to pieces the whole brain and placed sections from every part under the microscope. He has correctly stated that there may be some doubt as to the diagnosis of the case. It seems to me that the symptoms did not follow the same sequence as those of general paralysis, and that many important symptoms of that disease were absent. I doubt whether general paralysis can be made out through physical symptoms alone. In this case the characteristic *manie des grandeurs* was not present. It is difficult exactly to define what general paralysis is, but it is generally believed to depend upon diffused inflammation of the brain and its membranes, a distinctive characteristic being that the inflammation is diffused and not localized, as shown by the symptoms of mental weakness, of impaired motor power, and sometimes of irritation as evidenced by epileptiform and apoplectiform seizures. I think that in this case the disease has commenced in a certain portion of the brain, probably in the left motor convolutions, and has gradually spread over the whole organ, and latterly to the spinal cord. The case deserves study and attention.

Dr. BATTY TUKE—I heartily agree with you in congratulating Dr. Mitchell on the production of his careful and interesting paper. It is by the accumulation of such papers that we may hope to gain a deeper insight into the nature of insanity. I think, with you, that Dr. Mitchell exercised a wise caution in refraining from an absolute diagnosis of general paralysis in this case. It is not so much the absence of the typical mental symptoms which weighs with me in not regarding this as a case of general paralysis. It is that there are certain anomalies in its method of incidence and in its progress which cause me to regard it as a case of endo-arteritis. And I submit to you that this opinion is supported by the pathological appearances. The various modifications of motility described are to be accounted for by the implication of the blood supply in various motor centres being greater or less according to the extent to which the lumen of the vessels was diminished. It is true there is no specific history, but we all know how difficult it often is to obtain accurate information on this point. Dr. Mitchell's paper and preparations are of special and particular interest to myself on account of the demonstration afforded of the presence of miliary sclerosis, for I notice that in the report of the Medical Congress, Dr. Savage read a paper in the psychological section which must have a tendency to throw doubt on the observations of Professor Rutherford and myself on that and other lesions. I have waited somewhat anxiously for the publication of this paper, but as yet nothing but an abstract has appeared, in which it is stated that in the brains and spinal cords of men and animals, changes not to be distinguished from the so-called miliary sclerosis had been noticed by Dr. Savage. This may be so. Of course I have no doubt that it is so. But if Dr. Savage means to imply that the appearances described by Professor Rutherford and myself were due to this method of preparation, the ground is cut from underneath his feet by the statement of the fact that in no instance were our specimens immersed in spirit for more than twenty-four hours. Dr. Mitchell's preparations, as he has told us, were in spirit only for a few hours longer, and he assures me that when submitted for a longer period, the demonstration of the lesion became more difficult. I may mention that Professor Rutherford and myself, after working for many months with spirit preparations, set a long series aside as practically useless because we found in

them invariably appearances which we soon recognised to be artificial; but when we came to use chromic acid these were not observable, nor were the appearances presented in any way uniform. If I am wrong in imputing to Dr. Savage the implication that miliary sclerosis, colloid and amyloid degeneration as described by Professor Rutherford, myself, and others, are not due to disease, but to artificial production, I have nothing more to say; but I think that any one who reads the abstract of this paper will not think me hasty in supposing that some doubt was thrown on the accuracy of our observations. If he does not deny the implication, I am quite prepared to submit a series of preparations to a jury, leaving them to decide the question between us. Under any circumstances, I think it would have been better if Dr. Savage, before reading his paper, had studied my preparations alongside of his own.

The CHAIRMAN—With reference to Dr. Tuke's observations, I may state that I was present at the Congress when Dr. Savage read his paper. My impression was that the argument went to show that appearances resembling many so-called lesions of the brain might be produced by the spirits of wine used in the preparation of the specimens, and that the object of the paper was to warn young pathologists against mistaking changes produced by alcohol and reagents for morbid processes. The paper did not certainly appear to me to be any attack on the views of distinguished pathologists like Dr. Tuke and Professor Rutherford.

Dr. YELLOWLEES—I have listened to Dr. Mitchell's paper with pleasure, and shall read it with still greater interest. I do not say that the case is certainly one of general paralysis, although it presents many symptoms that might lead to that conclusion. I do not attach much importance to the absence of grandiose ideas, for we often see cases of general paralysis without them.

Dr. MITCHELL—I am not surprised that many present are not decided as to the case being one of general paralysis. I think, with Dr. Tuke, that it would be more accurately described as a case of endo-arteritis and aphasia.

(The proposed Statistical Tables were then discussed, and various amendments *adopted for the consideration of the English Statistical Committee.)*

GUITEAU'S TRIAL.

THE SUMMING UP OF JUDGE COX.

The indictment charged the defendant with having murdered James A. Garfield, and it was the duty of the court to explain the nature of the crime charged. Murder was committed when a person of sound memory and discretion unlawfully killed a reasonable being, in the peace of the United States, with malice aforethought. It had to be proved, first, that the death was caused by the act of the accused; and, further, that it was caused with malice aforethought. That did not mean, however, that the Government had to prove any ill-will or hatred on the part of the accused toward the deceased. Wherever a homicide was shown to have been committed without lawful authority and with deliberate intent, it was sufficiently proved to have been done with malice aforethought; and malice was not disproved by showing that the accused had no personal ill-will to the deceased, and that he killed him from other motives—as, for instance, robbery or through mistaking him for another, or, as claimed in this case, to produce a public benefit. If it could be shown that the killing occurred in a heat of passion or under provocation, then it would appear that there was no premeditated attempt, and, therefore, no malice aforethought, and that would reduce the crime to manslaughter. It was hardly necessary, however, to say that there was nothing of that kind in the present case. The jury would have to say either that the defendant was guilty of murder or that he was innocent. In order to constitute the crime of murder the assassin must have a reasonably sane mind. In technical terms, he must be "of sound mind, memory, and discretion." An irresponsibly insane man could not commit murder. If he was labouring under a disease of the mental faculties to such an extent that he did not know what he was doing, or did not know it was wrong, then he was wanting in that sound mind, memory, and discretion that was a part of the definition of murder. In the next place, every defendant was presumed innocent until the accusation against him was established by proof. In the next place, notwithstanding this presumption of innocence, it was equally true that a defendant was presumed to be sane and to have been so at the time the crime was committed; that is to say, that the Government was not bound to show affirmatively, as a part of its proofs,

that the defendant was sane. As insanity was the exception, and as the majority of men are sane, the law presumed the latter condition of every man until some reason was shown to believe to the contrary. The burden was, therefore, on the defendant, who set up insanity as an excuse for crime, to produce proofs in the first instance to show that that presumption was mistaken so far as it related to the prisoner. Crime, therefore, involved three elements—the killing, malice, and a responsible mind in the murderer.

After all the evidence was before the jury, if the jury, while bearing in mind both those presumptions (that is, that the defendant is innocent till he is proved guilty, and that he is sane till the contrary appears), still entertained what is called a reasonable doubt on any ground, or as to any of the essential elements of the crime, then the defendant was entitled to the benefit of that doubt and to an acquittal. It was important to explain to the jury here, in the best way that the court could, what is a reasonable doubt. He could hardly venture to give an exact definition of the term, for he did not know of any successful attempt to do so. As to questions relating to human affairs, a knowledge of which is derived from testimony, it was impossible to have the same kind of certainty that is created by scientific demonstration. The only certainty that the jury could have was a moral certainty, depending on the confidence which the jury had in the integrity of witnesses and in their capacity and opportunity to know the truth. If, for example, facts not improbable in themselves were attested by numerous witnesses, credible and uncontradicted, and who had every opportunity to know the truth, a reasonable or moral certainty would be inspired by that testimony. In such a case doubt would be unreasonable or imaginary or speculative. It ought not to be a doubt as to whether the party might not be innocent in the face of strong proofs of his guilt, but it must be a sincere doubt whether he had been proved guilty. Even where the testimony was contradictory, and where so much more credit should be given to one side than the other, the same result might be produced. On the other hand, the opposing proofs might be so balanced that the jury might justly doubt on which side, under all the circumstances, the truth lay, and in such case the accused party was entitled to the benefit of the doubt. All that a jury could be expected to do was to be reasonably and morally certain of the facts which they declared to be their verdict.

With reference to the evidence in this case very little comment was required by the court, except upon one question, the others being hardly matters of dispute. That the defendant fired at, and shot, the deceased President was abundantly proved; that the wound was fatal had been testified to by the surgeons, who were competent to speak, and they were uncontradicted; that the homicide was committed with malice aforethought (if the defendant were capable of criminal intent or malice) could hardly be gainsaid. It was not necessary to prove that any special or express hatred or malice was entertained by the accused toward the deceased. It was sufficient to prove that the act was done by deliberate intent, as distinct from an act done under a certain impulse in the heat of blood and without previous malice. Evidence had been exhibited to the jury tending to show that the defendant admitted in his own handwriting that he had conceived the idea of "removing the President," as he called it, six months before the shooting; that he had deliberated upon it and come to the determination to do it; and that about two weeks before he accomplished it he stationed himself at certain points to do the act, but for some reason was prevented. His preparation for it by the purchase of a pistol had been shown. All these facts came up to the full measure of the proof required to establish what the law denominated malice aforethought.

The jury would find little difficulty in reaching a conclusion as to all the elements that made up the crime charged in the indictment, except it might be as to the one of sound mind, memory, and discretion, but that was only a technical expression for a responsible, sane man. He now approached that difficult question. He had already said that a man who is insane in the sense that makes him irresponsible cannot commit a crime. The d fence of insanity had been so abused as to be brought into great discredit. It was the last resort in cases of unquestioned guilt. It had been an excuse for juries to bring in a verdict of acquittal when there was a public sympathy for the accused, and especially where there was provocation for the homicide according to public sentiment, but not according to law. For that reason the defence of insanity was viewed with disfavour, and public sentiment was hostile to it. Nevertheless, if insanity were established to a degree necessary it was a perfect defence for an indictment for murder, and must be allowed full weight. It would be observed that in this case there was no trouble with any question about what might be called total insanity, such as raving mania or absolute imbecility, in which all exercise of reason is wanting, and where there is no recognition of persons or things or their relations. But there was a debatable border line between sanity and insanity, and there was often great difficulty in determining on which side of this line a party was to be put. There were cases in which a man's mental faculties generally seemed to be in full vigour, but where on one single subject he seemed to be deranged. A man was possessed, perhaps, by a belief of something absurd which he could not be reasoned out of (what was called an insane delusion), or he might have some morbid propensity, seemingly in harsh discord with the rest of his intellectual and moral nature. Those were cases which, for want of a better term, were called partial insanity. Sometimes its existence and sometimes its limits were doubtful and indefinable, and in those cases it was difficult to determine whether the patient had passed the line of moral or legal accountability for his actions.

The jury would bear in mind that a man did not become irresponsible by the mere fact of his being partially insane. Such a man did not take leave of his passions by becoming

insane. He might retain as much control over them as in health. He might commit offences, too, with which his infirmity had nothing to do. He might be sane as to the crime he committed, might understand its nature, and might be governed by the same motives in relation to it as other people, while on other subjects having no relation whatever to the crime he might be the victim of delusion. Whenever this partial insanity was relied on as a defence it must appear that the crime charged was a product of the delusion or other morbid condition, and connected with it as effect with cause, and that it was not the result of sane reasoning which the party might be capable of, notwithstanding his limited and circumscribed disorder. Assuming that that infirmity of mind had a direct influence on crime, the difficulty was to fix the character of the disorder which fixed responsibility or irresponsibility in law. The outgoings of the judicial mind on that subject had not been always entirely satisfactory nor in harmony with the conclusions of medical science. Courts had, in former times, passed upon the law in regard to insanity without regard to the medical aspect of the subject; but it would be only properly dealt with by a concurrence of harmonious treatment between the two sciences of law and medicine. The courts had therefore adopted and again discarded one theory after another in the effort to find some common ground on which to stand, and his effort would be to give to the jury the results most commonly accepted by the courts.

It would be well to say a word to the jury as to the kind of evidence to which courts and juries were guided in this difficult and delicate inquiry. That subtle essence called mind defied, of course, ocular inspection. It could only be known by its manifestations. The test was as to whether the conduct of the man and his thoughts and emotions conformed with those of persons of sound mind, or whether they contrasted harshly with it. By that a judgment was formed as to a man's soundness of mind; and for that reason evidence was admissible to show conduct and language that would indicate to the general mind some morbid condition of the intellectual powers. Everything relating to his mental and physical history was, therefore, relevant, because any conclusion on the subject must often rest on a large number of facts; and letters, spontaneously written, afforded one of the best indications of mental condition. Evidence of insanity in the parents was always pertinent, but juries were never allowed to infer insanity of the accused from the mere fact of its existence in the ancestors. When, however, there was evidence tending to show insane conduct on the part of the accused, evidence of insanity in the ancestors was admissible as corroborative of the others. Therefore it was that in this case the defence had been allowed to introduce evidence covering the whole life of the accused and reaching also his family antecedents. In a case so full of detail he should deem it to be his duty to call the attention of the jury to particular parts of it, but he wished the jury distinctly to understand that it was their province, and not his, to decide upon the facts; and if he at any time seemed to express or intimate any opinion on the facts (which he did not design to do), it would not be binding on them, but they must draw their own conclusions from the evidence.

The instructions which he had already given to the jury imported that the true test of criminal responsibility, where the defence of insanity was interposed, was whether the accused had sufficient use of his reason to understand the nature of the act with which he was charged, and to understand that it was wrong for him to commit it. If those were the facts, he was criminally responsible for the act whatever peculiarities might be shown of him in other respects. On the other hand, if his reason were so defective, in consequence of brain disease, that he could not understand what he was doing, or could not understand that what he was doing was wrong, he ought to be treated as an irresponsible lunatic. As the law assumed every one at the outset to be sane and responsible, the question was, What was there in this case to show the contrary as to this defendant? A jury was not warranted in inferring that a man was insane from the mere fact of his committing a crime, or from the enormity of the crime, because the law presumes that there is a bad motive, and that the crime was prompted by malice if nothing else appears. Perhaps the easiest way for the jury to examine into the subject was, first to satisfy themselves about the condition of the prisoner's mind for a reasonable period of time before any conception of the assassination had entered it, and also at the present time, and then consider what evidence exists as to a different condition of mind at the time of the commission of the act. He should not spend any time on the first question, because to examine it at all would require a review of the evidence relating to over twenty years of the prisoner's life, and this had been so exhaustively discussed by counsel that anything he could say would be a wearisome repetition. It was enough to say that on the one side this evidence was supposed to show a chronic condition of insanity before the crime, and on the other side, to show an exceptionally quick intelligence and decided powers of discrimination. The jury would have to draw its own conclusions. Was the prisoner's ordinary, permanent, chronic condition of mind such that he was unable to understand the nature of his actions and to distinguish between right and wrong in his conduct? Was he subject all the time to insane delusions, which destroyed his power so to distinguish, and did those continue down to and embrace the act for which he is on trial? If so, he was simply an irresponsible lunatic. On the other hand, had he the ordinary intelligence of sound people, so that he could distinguish between right and wrong as to his actions? If another person had committed the assassination, would the prisoner have appreciated the wickedness of it? Would he have understood the character of the act and its wrongfulness if another person had suggested it to him? The jury must consider these questions in their own mind. If the jury were satisfied that his ordinary and chronic condition was that of sanity—at least, so far that he knew the character of his own actions and how far they were right or wrong—and that he was not under any permanent insane delusion which destroyed his power of discriminating between

right and wrong, then the remaining inquiry was whether there was any special insanity connected with this crime. It would be seen that the reliance of the defence was the existence of an insane delusion in the prisoner's mind which so perverted his reason as to incapacitate him from perceiving the difference between right and wrong as to this particular act.

After referring to McNaughten's case, Judge Cox went on to say that the subject of insane delusion played an important part in this case, and demanded careful consideration. The subject was treated to a limited extent in judicial decisions, but more was learned about it in works of medical jurisprudence and from expert testimony. Sane people were sometimes said to have delusions proceeding from temporary disorders and from mistakes in the senses. Sometimes they speculated on matters beyond the scope of human knowledge, but delusions in sane people were always susceptible of being corrected and removed by evidence and argument. On the contrary, insane delusions, according to all testimony, were unreasonable and incorrigible. Those who had them believed in the existence of facts which were either impossible absolutely or impossible at least under the circumstances of the individual. A man might, with no reason for it, believe that another was plotting against his life, or that he himself was the owner of untold wealth, or that he had invented something which would revolutionize the world, or that he was the President of the United States, or Christ, or God, or that he was inspired by God to do a certain act, or that he had a glass limb, and these were causes of insane delusion. Generally the delusion centred around the patient himself, his rights or his wrongs. It came and went independently of the exercise of will and reason, like the phantom of a dream. It was, in fact, the waking dream of the insane, in which ideas presented themselves to the mind as real facts. The most certain thing was that an insane delusion was never the result of reasoning and reflection, was not generated by them, could not be dispelled by them. A man might reason himself, or be reasoned by others, into absurd opinions, and be persuaded into impracticable schemes, but he could not be reasoned or persuaded into insanity or insane delusions. Whenever evidence was found of an insane delusion it was found that the insane delusion did not relate to mere sentiment and theory, or abstract questions in laws, politics, or religion. All these were subjects of opinions, and were founded on reasoning and reflection. Such opinions were often absurd in the extreme. Some people believed in animal magnetism, in spiritualism, and other like matters in a degree which seemed absurd to other people. There was no absurdity in regard to religious, political, and social questions that had not its sincere supporters. Those opinions might arise from natural weakness, bad reasoning powers, ignorance of men and things, fraudulent imposture, and often from perverted moral sentiment; but still they were opinions founded on some kind of evidence and liable to be abandoned on better information or on sounder reasoning, but they were not insane delusions. An insane delusion was the coinage of a diseased brain, which defies reason and ridicule, and throws into disorder all the springs of human action.

Before asking the jury to apply these considerations to the facts in this case, he wished to premise one or two things. The question for the jury to determine was, What was the condition of the prisoner's mind at the time this project was executed? If he were sufficiently sane then to be responsible, it mattered not what might have been his condition before or after. Still, evidence had been properly admitted as to his previous and subsequent condition because it threw light, prospectively and retrospectively, on his condition at the time. Inasmuch as these disorders were of gradual growth and of indefinite continuance, if he were insane shortly before or shortly after the commission of the crime, it was natural to infer that he was so at the time; but still all the evidence must centre round the time when the deed was done.

The jury had heard a good deal of evidence respecting the peculiarities of the prisoner through a long period of time before this occurrence, and it was claimed on the part of the defence that he was during all that time subject to delusions that were calculated to disturb his reason and throw it off its balance. The only materiality of that evidence was the probability which it might afford of the defendant's liability to such disorders of mind, and the corroboration which it might yield to other evidence tending to show such disorder at the time of the commission of the crime. The jury must determine whether at the time the homicide was committed, the defendant was labouring under an insane delusion prompting or impelling him to do the deed. Naturally, they would look first to an explanation of the act that might have been made by the defendant himself at the time or immediately before or after. Several papers had been laid before them that had been in the prisoner's possession, and that purported to assign the motive for the deed. In the address to the American people on the 16th of June he said: "I conceived the idea of removing the President four weeks ago. Not a soul knew of my purpose. I conceived the idea myself, and I kept it to myself. I read the newspapers carefully for and against the Administration, and gradually the conviction dawned upon me that the President's removal was a political necessity, because he proved a traitor to the men who made him, and thereby imperilled the life of the nation." Again, he said in this address: "Ingratitude is the basest of crimes. The President, under the manipulation of the Secretary of State, has been guilty of the basest ingratitude to the Stalwarts. His express purpose has been to crush General Grant and Senator Conkling, and thereby open the way for his renomination in 1884. In the President's madness he has wrecked the once grand Republican party, and for that he dies." And again: "This is not murder; it is a political necessity. It will make my friend Arthur President, and save the Republic." The other papers were of similar tenor. There was evidence that when arrested the prisoner refused to talk, but said that the papers would explain all. On the night of the assassination the prisoner had said to the witness Brooks

that he had thought over it and prayed over it for weeks; that he was satisfied that he had to do the thing, and had made up his mind, and had done it as a matter of duty. He had made up his mind that the President and Secretary Blaine were conspiring against the liberties of the people, and that the President must die. In addition to this, the jury had the important testimony of Mr. Reynolds as to the prisoner's statements, oral and written, about a fortnight after the shooting. There he was found reiterating the statements contained in his other papers, and saying that the situation at Albany suggested the removal of the President, and that, as the faction fight became more bitter, he became more decided; that he knew that Arthur would become President, &c.

The jury had now before it everything emanating from the prisoner about the time of the shooting. There was nothing further from him until three months afterwards. And now he would pass to consider the import of all this. The jury would consider, first, whether this evidence fairly represented the feelings and ideas that governed the prisoner at the time of the shooting. If it did, it represented a thing which he (Judge Cox) had not seen characterized in any judicial utterance as an insane delusion. They would consider whether it was evidence of insanity, or whether, on the contrary, it showed an ample power of reasoning and reflection on the arguments and evidence for and against, resulting in the opinion that the President had betrayed his party, and that, if he were out of the way, it would be a benefit to his party, and would save the country from the predominance of their political opponents. So far there was nothing insane in the conclusion. It had doubtless been shared by a good many heated partisans who were sane people, but the difference was that the prisoner reached the conclusion that to put the President out of the way by assassination was a political necessity. When men reasoned, the law required them to reason correctly, so far as their practical duties were concerned. When they had the capacity to distinguish between right and wrong, they were bound to do it. Opinions, properly so called (that is, beliefs resulting from reasoning, reflection, and the examination of evidence), afforded no protection against the penal consequences of crime. A man might believe a course of action to be right, and the law might forbid it as wrong. Nevertheless he must obey the law, and nothing could save him from the consequences of the violation of the law except the fact that he was so crazed by disease as to be unable to comprehend the necessity of obedience. [Judge Cox here quoted the decision of the Supreme Court in the Mormon case.] In like manner, he said, a man might reason himself into a conviction of the expediency and necessity of protecting the character of a political association, but to allow him to find shelter from punishment behind that belief would be simply monstrous. Between one and two centuries ago there had arisen a school of moralists who were accused of maintaining the doctrine that whenever the end to be attained was right, any means necessary to its attainment were justifiable. Consequently, they incurred the odium of nearly all Christendom. By that method of reasoning the prisoner seemed to have gotten the idea that, in order to unite the Republican Party and to save the Republic, whatever means were necessary would be justifiable; that the death of the President by violence was only a proper and necessary means of accomplishing it, and was therefore justifiable; and that, being justifiable as a political necessity, it was not murder. That appeared to be the substance of the idea which the prisoner had put forth to the world, and if this was the whole of his position, it presented one of those vagaries of opinion (even if it were sincere) for which the law had no accommodation, and which furnished no excuse whatever for crime.

There was, undoubtedly, a form of insane delusion consisting of a belief by a person that he is inspired by the Almighty to do something—to kill another, for example—and this delusion might be so strong as to impel him to the commission of crime. The defendant in this case claimed that he laboured under such a delusion at the time of the assassination. His unsworn declarations in his own favour were not, of course, evidence, and were not to be considered by the jury. A man's language, when sincere, might be evidence of his condition of mind, but not evidence in his favour of the facts declared by him. He could never manufacture evidence in that way in his own exoneration. The law allowed a prisoner to testify in his own behalf, and therefore made his sworn testimony on the witness stand legal evidence, to be received and considered and given such weight to as it deserved. No verdict, however, could be safely rendered on the sole evidence of an accused party under such circumstances. Otherwise, a man on trial for his life could secure his acquittal by simply testifying that he had committed the crime under a delusion or inspiration, or irresistible impulse. That would be to proclaim a universal amnesty to criminals in the past and unbounded license in the future, and courts of justice might as well be closed.

He would say a word about the characteristics of that form of delusion. The idea of being inspired to do an act might be either a sane belief or an insane delusion. A great many Christian people believed not only that events were providentially ordered, but that they themselves received special providential guidance and illumination in respect both to their inward thoughts and their outward actions. But this was a mere sane belief. On the other hand, if a man sincerely, though insanely, believed that, like St. Paul on his way to Damascus, he had been smitten to the earth, and had seen a great light, and had heard a voice from heaven warning and commanding him to do a certain act, that would be a case of imaginary inspiration amounting to an insane delusion. The question was whether the case of this defendant presented anything analogous to that. The theory of Government was that the defendant committed this homicide in the full possession of his faculties and from perfectly sane motives; that he did the act from revenge, or, perhaps, from a morbid desire for notoriety; that he calculated deliberately on being protected by those who were

to be benefited politically by the death of the President; that he made no pretence of inspiration at the time of the assassination, nor until he had discovered that his expectations from the so-called Stalwart wing of the Republican Party were delusive; and that then, for the first time, he broached his theory of inspiration and irresistible pressure to the commission of the act. Whether this was true or not the jury must determine from the evidence. It was true that the term "inspiration" did not appear in the papers first written by the defendant, nor in those delivered to Mr. Reynolds, except at the close of the one dated July 19, in which he said that the inspiration was worked out of him (although what that meant was not clear); and it was true also that that was after he was informed that he was being denounced by the Stalwarts. Judge Cox referred to the testimony of Dr. Noble Young, Dr. McDonald, and Dr. Gray, and this, he said, was about the substance of what appeared in the case on the subject of inspiration.

Judge Cox went on to say that the question for the jury was whether, on the one hand, the idea of killing the President first presented itself to the defendant in the shape of a command or inspiration of the Deity, in the manner in which insane delusions of that sort arose; or whether, on the other hand, it was a conception of his own, and whether the thought of inspiration was not simply a speculation, or theory, or theoretical conclusion of his own mind. If it were the latter, it was nothing more than one of the vagaries of reasoning which he had already characterized as furnishing no excuse for crime. He had dwelt upon the question of insane delusion simply because the evidence relating to that was evidence touching the defendant's power or want of power, (from mental disease) to distinguish between right and wrong as to the act done by him. This was the broad question for the jury to determine, and was what was relied upon by the defence.

It had been argued with force on the part of the defence that there were a great many things in the defendant's conduct which could not be expected of a sane man, and which were only explainable on the theory of insanity. There were strange things in his career, and whether they were really indications of insanity, or could be accounted for by his ignorance of men, by his exaggerated egotism, or by his bluntness of moral sense, it might be difficult to determine. The only safe rule, however, was for the jury to direct its attention to the one test of criminal responsibility, namely, whether the prisoner possessed the mental capacity, at the time the act was committed, to know that it was wrong, or whether he was deprived of that capacity by mental disease. There was one important distinction which the jury must not lose sight of, and they must decide how far it was applicable to the case. That was the distinction between mental and moral obliquity; between the mental incapacity to distinguish between right and wrong and the moral insensibility to that distinction.

In conclusion, he said: From the materials presented to you two pictures have been drawn to you by counsel. The one represents a youth of more than average mental endowments, surrounded by certain immoral influences at the time his character was being developed; commencing life without resources, bnt developing a vicious sharpness and cunning; conceiving "enterprises of great pith and moment" that indicated unusual forecast, although beyond his resources; consumed all the time by unsated egotism and a craving for notoriety; violent in temper, selfish, immoral, and dishonest; leading a life of hypocrisy, swindling, and fraud; and finally, as a culmination of his depraved career, working himself into the resolution of startling the world with a crime which would secure him a bad eminence. The other represented a youth born, as it were, under malign influences—the child of a diseased mother and of a father subject to insane delusions, reared in retirement and imbued with fanatical religious views; subsequently, his mind filled with fanatical theories, launched on the world with no guidance save his own impulses, evincing an incapacity for any continuous employment; changing from one pursuit to another—now a lawyer, now a religionist, and now a politician—unsuccessful in all; full of wild, impracticable schemes, for which he had neither resources nor ability; subject to delusions; his mind incoherent and incompetent of reasoning coherently on any subject; with a mind so weak and a temper so impressionable that he became deranged, and was, therefore, impelled to the commission of a crime the seriousness of which he could not understand. It is for you, gentlemen, to determine which of the portraits is the true one.

And now, gentlemen, to sum up all I have said to you, if you find from the whole evidence that at the time of the commission of the homicide the prisoner was labouring under such a defect of his reason that he was incapable of understanding what he was doing, or of seeing that it was a wrong thing to do—as, for example, if he were under the insane delusion that the Almighty had commanded him to do the act—then he was not in a responsible condition of mind, but was an object of compassion, and should be now acquitted. If, on the other hand, you find that he was under no insane delusion, but had the possession of his faculties, and had power to know that his act was wrong, and if, of his own free-will, he deliberately conceived the idea and executed the homicide, then, whether his motive were personal vindictiveness, political animosity, a desire to avenge supposed political wrongs, or a morbid desire for notoriety, or, if you are unable to discover any motive at all, the act is simply murder, and it is your duty to find a verdict of guilty as indicted. Or (after a suggestion from Mr. Scoville to that effect) if you find that the prisoner is not guilty by reason of insanity, it is your duty to say so. You will now retire to your room and consider your verdict.

ATTEMPT TO SHOOT THE QUEEN.

The indictment charged the prisoner Roderick Maclean with traitorously and maliciously compassing the death of her Majesty the Queen, and with having, on the 2nd of March, discharged a pistol loaded with powder and bullet at her Majesty in the parish of Windsor. He was tried at Reading, April 19, 1882. Mr. Montagu Williams having opened the case for the defence, in the course of which he expressed the astounding opinion that the attempt to murder the Queen was "committed under the influence of a condition of mind brought upon him by the Almighty"—a charge which throws into the shade the worst utterances of Mr. Bradlaugh—called the following among other witnesses: –

Mr. Fowler Smith, surgeon, in practice at Kensington, said, in reply to Mr Yates—I find from my books that in 1866 I attended a patient who gave the name of the prisoner, and an address 8, Gloucester road. I dressed a wound in his head. I attended him from March 10 to April 18, not every day, but 14 or 15 times altogether.

Dr. Maudsley said—I have had 25 years' experience of insanity. I remember being called in to the prisoner, and I gave a certificate on December 18, 1854. [The certificate stated that the doctor saw Roderick Maclean at 112, Earl's Court road, London, some months before, when he was brought by his father in order to obtain his (witness's) opinion to his state of mind.] Witness formed an opinion at that time that he was not of perfectly sound mind. He recommended his being placed under some supervision in order that he might be prevented from doing mischief, as there was every reason to believe he would some day attempt it.

Samuel Stainsby, examined by Mr Montagu Williams—I live at Lavender hill, London, and am an artist. I have known the prisoner and his family for upwards of twenty years.

Do you remember his meeting with an injury to his head?—Yes, I do ; and heard of it whilst he lived at 112, Earl's Court road.

And you had frequent opportunities of seeing him. Did you come to any conclusion with regard to the state of his mind?—I had no doubt at all but that he was absolutely insane.

Mr. Montagu Williams then put in the following letters, in the prisoner's handwriting :—

"13, George street, Weston-super-Mare, Sunday, May 30, 1880.

"Dear Annie,—I have no doubt but you will be somewhat surprised to receive another letter from me ; but as the English people have continued to annoy me, I thought I would write, as you should not be surprised if anything unpleasant occurred, as the people being so antagonistically inclined towards me makes me raving mad. I can hardly contain myself ; in fact, I mean if they don't cease wearing blue I will commit murder. In fact, I could not prevent myself committing murder about them not assisting me to get a letter from the Sanatorium ; and yet they have the audacity to wear blue, and the anguish I passed the other night I could not describe. Perhaps by the time you receive this I shall be in prison. I really think I cannot prevent myself having revenge on the English people, and I don't mind a bit if they hang me, as now I see things in a different light. They only pretend to be friendly, to annoy and cause untold misery. I fear it will be just as bad in Boulogne or elsewhere. What chance have I to cope with the millions of people who are against me? Not merely against me—I should not mind that—but at open defiance and publicly annoying me on every possible occasion. What a confounded fool I must have been to say anything about it or wear blue at the time! From your former words I thought the people had a more forgiving nature ; but I perceive I was deceived in them all. I intend to carry my determination into effect to-day (Monday), and after it's done I shall write you a letter, of course. I shall not remove nor give myself up, but doubtless they will take me into custody the next day. If I cannot commit a murder (I really assure you, Annie, I mean what I write) in one way, I will in another way. All I can add is, if there is more difficulty there may be more victims.

"From yours affectionately,

"Roderick.

"P.S.—Among other things the people, after so universally wearing blue, not giving me a letter for the Sanatorium, annoyed and troubled me very much indeed, you have no idea how much, especially as they all more or less wear blue. I have written a confession, which I intend to give to the superintendent if they will not read it in Court. Will you try and persuade 'em to, as I wish the English people to know that they did not make such a fool of me as they supposed, and as they previously were at enmity for nothing, now they shall be at enmity for something? Of course you can see the confession is—Why I committed the murder, not about the museum affair."

"14, Wadham street, Weston-super-Mare.

"Dear Annie,—I received your telegram this morning, and as the people where I am staying heard me say something about the revenge I contemplate having against the English people, as they have all conspired to annoy me, I am not alluding merely to Weston, but every one in England—in London, Bristol, Bath, and Boulogne—in fact, everywhere. As they said they wished to avoid any difficulties, or to get their names into the papers, I must leave their house this day and pay half a week, which I have done. I don't want

you or Caroline to have to suffer for what the people are doing. I have no doubt it would drive any one mad if they knew for certain, as I do, that millions of people are trying to injure, annoy, and vex me, on every opportunity. They cannot make me believe otherwise, as I am not such a fool as many people may suppose. What they or any one said to the contrary I should be, and I am positive my conclusions are correct ones, as I should not get out of the people's annoyance by coming to London. As there are so many people in London, it would be a thousand times worse. It puzzles me to know what to do, or where to go. An asylum would be the only place of refuge, but even there I should come in contact with the attendants and visitors, &c. A workhouse is worse, as more people come in and out. At all events, I will try to keep free from trouble until next Monday, and by that time something must be decided. But if it happens I should do something wrong before then, I shall send the bag, and write a letter; but I can assure you that I will try as much as I can to keep down the impulses that the people's antagonism caused to rise. In Boulogne I fear it will be as bad, if not far worse. What annoyed me so very much was the not sending me a letter for the Sanatorium. If I had asked for pecuniary assistance, it would have been another thing; but, considering how desirable it was that I should get in, and being so simple a request, I thought they, by refusing me, only done it to cause me perplexity and annoyance, especially after everywhere I went (were) wearing either blue, or black and blue, and I having a few days previously told the landlady at Clevedon, on April 12, that all who wear blue would be signifying they were my friends. Also, as you know by my letters to you, it all appeared so plain to my senses that I concluded that people merely done it to deceive me and to cause me perplexity and agony. With love from your affectionate

"RODERICK.

"Monday, May 31, 1880."

The Attorney-General—You say that while the prisoner was staying with you, you thought him insane. Why did you think so?—My impression was founded more on his general conduct than on any particular act. He was always boasting of his power.

The Lord Chief Justice—Is self-conceit inconsistent with insanity?

Witness—No, but his was immoderate. He was always talking of his histrionic powers. He thought he was a great actor.

Was he placed under any restraint at this time?—No, he was treated like one of the family.

Mr. Montagu Williams read the following letter from the prisoner to his sister:—

"A Vow to be Remembered,—Since what Annie said to me on December 29th, as to the way in which I should get my living, I swear most positively and solemnly to God Almighty that I will never leave England or Scotland only merely to visit Boulogne, France. As this is a most sacred and solemn vow to God, if any one advises or entices me in any way that ingenuity can devise to leave either England or Scotland to visit any country excepting France, may the full curse of God be their portion. If I myself give ear even for a moment to such inducements, may I share God's full wrath.

"(Signed) RODERICK EDWARD MACLEAN.

"Besides other reasons why I have come to the above decision is it is quite evident they wanted to drive me out of England, like an exile from his native land. Now that end they will never gain, as I would sooner consent to be burned to death than to deviate from my oath made to the Almighty to prove how determined I am. A few days ago a gentleman offered me a berth worth £6 per week to go abroad in his yacht. I at once and most decisively refused it.

"R. E. M."

Dr. Alfred Godrich, 140, Fulham road, examined by Mr. Montagu Williams—I knew the prisoner in 1873-74. I was consulted with respect to the prisoner. His father wished him to be confined in a lunatic asylum. [Certificate produced.] My certificate states: "I find him to be of a highly nervous temperament," and although he did not exhibit any signs of insanity sufficient to justify sending him to a lunatic asylum, I felt strongly suspicious that he was not of sound mind, and advised his father to have him carefully supervised, to prevent him doing injury to himself or others.

The certificate was issued in October, 1874. At that time were you of opinion that the prisoner was of unsound mind?—Yes; certainly.

Dr. Hitchins, Westminster, examined by Mr. Montagu Williams—On the 3rd of June, 1880, I examined the prisoner at the bar to ascertain the state of his mind.

At what conclusion did you arrive?—That he was a person of unsound mind.

In consequence of your examination did you issue a certificate of insanity?—I did. [Certificate produced.] Upon the certificate the prisoner was confined in the Somerset Lunatic Asylum.

What kind of mania did you think he was suffering from?—Homicidal mania.

The Lord Chief Justice—There is an expression known to science which is used in these cases. You don't use it in your certificate. Why was that?

Witness—I don't know. When I find a person of unsound mind I do not always mention it.

When you say he had homicidal mania, do you suppose at that time he was master of his actions?—No; I think not. I was afraid he would do some injury to some one.

Mr. Thos. S. Sheldon, examined by Mr. Williams, said—I am a member of the Royal College of Surgeons, and assistant medical superintendent at the Bath and Wells Lunatic

Asylum. I produce a certificate of the discharge of the prisoner, which is as follows:—"R. E. Maclean, admitted June 2, 1880; discharged, recovered, on Feb. 21, on no probation." The remark on the case is, "being convalescent some months; his habits being intemperate."

Was he under your care at all?—Yes; as one of the medical officers, he came frequently under my attention. He was suffering from an indefinite state, which was mania and partly melancholia. When admitted he was excited, and the excitement continued some days. Reaction set in, and he became melancholy. During the last month I do not remember his delusions very accurately, but I have a strong impression they were the same as were recorded in the certificate, in which he was said to be suffering from homicidal mania—at all events, from a mania calculated to do injury to others.

By Sir Henry James—I have not any extracts from my case-book with me.

Mr. Montagu Williams said he had a copy of extracts. The document described him as being received on June 2nd, 1880; that he could read and write. His propensities were dangerous. General health fair, but he suffered from mental anxiety, and had a delusion that he must kill some one. His relation was given as Caroline Maclean, 112, Earl's Court Road.

Sir H. James—You were under the impression he had recovered?

Witness—Yes; recovered from the acute attack of mania.

And the delusions also?—So far as we could ascertain.

Mr. Williams—Would those kind of delusions be likely to return?

Witness—Yes. I thought when I sent him out he would probably come back, or be taken to some other asylum.

The Lord Chief Justice—You say that, as far as you could ascertain, the prisoner was recovered?

Witness—That is as far as we can go. I thought that any exciting cause, such as privation, would induce a return of insanity.

Did you think him safe to be at large?—Quite safe at the time.

At the time did you think his state of mind such that, from time to time, he would be dangerous?—I thought it necessary to confine him again.

The Rev. Archibald Campbell MacLachlan, examined by Mr. Williams—I am a clergyman of the Church of England, and live at Newton Vallance, in Hampshire. On Thursday, 23rd February last, I was at home. My attention was called by my wife to a man who had fallen down in a fit at my gate. That man was the prisoner at the bar. He was in a most exhausted condition when I came up. He was placed in a chair. He seemed half starved, and was in a cold perspiration. I was in Windsor on the 2nd March, and was standing halfway between Leighton's shop and the corner with my son and daughter, and saw the outrider coming; so I said, "Here is Her Majesty. It is a narrow street; we shall see her well." Just then I heard a report and saw smoke. I then saw the man I had relieved carried up the street. I had then a firm impression I had seen him before. Now I recognise him as the same man.

Mr. Manning, medical superintendent of Laverstock Asylum, Salisbury, said, in reply to Mr. Montagu Williams—I have had the management of that asylum for the last seven years, and I have had large experience of lunatics. I saw the prisoner in Reading Gaol, with a view to examining into the state of his mind, on the 6th, and again on the 30th of March of this year.

What conclusion did you come to?—That he was not of sound mind.

The witness's report was put in and read. It referred to interviews with the prisoner on the 6th and 30th March, and stated that he was rambling and disconnected in his discourse, and did not realize the enormity of the crime he had committed. He was labouring under three delusions—first, that there was a determination on the part of the people of England to persecute him; that persons were in the habit of dressing in blue to annoy him; and that he was under the influence of a supernatural power, hearing from time to time voices mocking and debating with him. He could not tell whether it was a male or a female voice. Referring to the crime, he said he had come to the conclusion that it would be better to put a bullet into the pistol to impress people with its gravity. From time to time he broke out into loud laughter, so that there was difficulty in controlling him. He was of very weak mind and subject to delusions, especially that of being subject to persecution, and witness believed that such delusions were in full force on the 2nd of March. Under the care and regular diet of the gaol the prisoner had improved during the period of his incarceration.

The Lord Chief Justice perused the report.

Mr. Montagu Williams—I must call your attention to one passage. "He tells me that he has now and then suffered from fainting attacks; but I think they are really paralytic seizures, and if so their occurrence will add to the disorder on this point. However, I have not been able to obtain any accurate information." Did you notice whether the prisoner had improved since March 2nd?—On the second occasion that I saw him I thought he was looking better.

The Attorney-General—Of course there are different degrees of insanity. What do you say as to his knowledge of an act he is committing? Would he be aware of what he was doing?—I think he would.

What do you think as to his competency to know whether he is doing right or wrong?—Well, it is difficult to enter into the mind of another person.

The Lord Chief Justice—Do you say that this man, at the time he presented the pistol to shoot the Queen, knew that he was doing wrong, but yet was unable, from mental or other

causes, to control his act, such as a strong man, not suffering from delusions, would have been?--I do.

Mr. Montagu Williams said that, under the circumstances, this would have been his case for the defence, but as he understood that certain medical men had seen the prisoner on behalf of the Crown, he should like them to be called in order that he might examine them.

The Attorney-General—When it was understood that a defence of insanity was to be set up I thought some inquiry should be made by independent medical men in order that there should be some check on the defence. Two gentlemen, one from Broadmoor and the other recently superintendent at Colney Hatch, have sent in reports as to their examination of the prisoner.

Dr. Edgar Shepherd, formerly superintendent of Colney Hatch Lunatic Asylum for 20 years, was then examined. He said that according to instructions from the Treasury, on the 24th March, and again on the 10th April, he saw the prisoner in Reading Gaol, and furnished a report to the Treasury.

In your opinion, from what you saw during these two interviews, and based upon your knowledge of mental disorders, did you believe at the time you saw him that he was a man of unsound mind?—Of unsound mind unquestionably.

The Attorney-General--Perhaps you could give a little more detail of your opinion?--I should say that the prisoner has very marked congenital defects, which handicap him very heavily. He has a very narrow head, with the high, arched skull so commonly associated with idiocy and insanity. He is not a man who could reach a fair standard of moral or physical health. He has a nervous hesitancy of speech amounting to a stutter—imperfect vocal articulation I should call it. He has a scar on the right side of the head, about two inches long, the result of an accident about 13 years ago, as I understand it. This scar is very tender on pressure. He complained to me of a shooting pain through the forehead. I found he had delusions of an unmistakable character. He said persons in blue were against him, and always had been; that he had a mysterious connection with the number four and the blue, and this combination of figures was always disastrous to him. He told me that a few weeks ago he went to Somerset House, in the Strand, to ascertain whether he was registered or baptised. Finding that he was neither the one nor the other, he thought himself more injured than ever, and he determined to bring his case under observation by taking the step he had done. I pointed out to him the inadequacy of his grievances to the measures adopted for redress, but he did not seem to see it at all. He had a perfect right to do what he had done, because it had been revealed to him in early life that he had a great and secret power over mankind. He also said he was related to the Royal family as much as George IV., and that the crowd would have torn him to pieces the other day had it not been for Jesus.

What was the result you arrived at?—I regard him as an imbecile, and I think he has always been so. All imbeciles are liable to paroxysms of this kind, homicidal mania. I think it more correct to call it delusional mania. Under the delusion they commit the homicide. The real question of right or wrong does not present itself to a man in such a state.

The Lord Chief Justice—In Macnaughten's case a question was put, and it was answered by a very eminent man in your profession. The question was whether the man, when he saw his supposed enemy before him, although he knew what he was going to do, and knew perhaps that it was wrong, had no power to resist gratifying his insane passion, but was just as if a man of greater strength had taken his hand and pointed the pistol at Mr. Drummond's back?—I do not think in this case the prisoner had any power whatever to distinguish between right or wrong.

Did the prisoner know when you examined him that you did so on the part of the Crown?—No, he did not.

By Baron Huddleston—At my last interview, just before I left him, he asked me who I was and what brought me there, and I then told him, but not before, that I was sent by the authorities to see him.

Dr. William Orange, examined by Mr. Williams—I am medical superintendent of the Broadmoor Lunatic Asylum. I was sent down by the authorities to ascertain the state of mind of the prisoner at the bar. I saw him on the 1st, the 3rd, and the 14th of April. I have been connected with public asylums for the last 22 years, during 19 of which I have been connected with the Broadmoor Asylum.

Having regard to the interviews you have had with the prisoner, is it your opinion that he is of sound or unsound mind?—Of unsound mind.

Did you hear Dr Shepherd just now, and do you agree with his evidence?—In the main I do.

By the Attorney-General—At the time I examined him I did not think he was capable of appreciating the nature and quality of the act he did.

The Lord Chief Justice—As far as you think, he would be unable to resist his impulses?

Witness—Lunatic persons labouring under the mental condition of the prisoner do commit acts contrary to law; but they commit them knowing in some instances what will be the consequences of their acts, as, for instance, persons who shoot others with the hope of being hanged must necessarily have the knowledge of what may be the result of their act.

Do I understand you to say that you think, from the disease of his mind, he did not appreciate the nature and quality of his act?—He is too wanting in capacity to appreciate the nature of the act he was committing.

Can you say he did not know at that time?—It is exceedingly difficult to dive into the muddy minds of insane people and assign some motive for insane acts. He told me all sorts of things, and I was in conversation with him for over seven hours.

You are not to tell us what passed, but, as a scientific man, the conclusions you have drawn.—That depends on the nature of his statements. He said he was right to do what he had done, and he had benefited himself by doing it. I may refer to the case of the man who shot at the Master of the Rolls. He maintained that he was right in doing so, and he knew he would have to go through a criminal court, but he is insane and irresponsible.

Baron Huddleston—I tried that case.

Mr. Oliver Maurice, M.R.C.S., examined by Mr. Williams—I have for the last 16 years been surgeon to the gaol at Reading. The prisoner at the bar has been for the last few weeks under my care, and I have seen him almost daily.

In your opinion is he of sound or unsound mind?—Unsound mind.

The Lord Chief Justice—Why do you say so?

Witness—From the frequent conversations I have had with him. He has delusions.

Do you think he knew what he was about when he fired the shot?—Yes, I think he knew what he was doing.

Do you think he knew he was doing wrong?—I do not.

Do you think that if he did know he could have helped it?—I do not.

This concluded the evidence for the defence.

Mr. Montagu Williams then proceeded to sum up the case for the defence. He said the only thing they would have to decide was, Was the prisoner, at the time he committed the act, of sound or unsound mind? Was he a responsible person in the eye of the law? Was he capable of distinguishing what was the quality of his act, and did he know the difference between right and wrong? He thought they would conclude that the prisoner was not guilty on the ground of insanity, when he would be detained during Her Majesty's pleasure.

The Attorney-General said that a verdict of not guilty on the ground of insanity was not to be lightly arrived at. He added:—Those who advise the Crown have received all the information you have heard, and they could not but conclude that the opinions of such eminent men as Drs. Orange and Shepherd would have very great weight and influence on you in arriving at your verdict. We have also received evidence with respect to the previous life of the prisoner, and it occurred to us that there was very cogent evidence that the prisoner's mind was not in a healthy and sane condition; but grave questions might arise as to the extent to which the insanity had reached, and it was our opinion that you should be left to decide whether it was of a character to prevent the prisoner being responsible for his actions.

The Lord Chief Justice then proceeded to sum up the case to the jury. Having reviewed the evidence adduced, his Lordship said—It is for you to say whether you consider the prisoner to be not guilty on the ground of insanity; but if you find him not guilty, you should be careful to add the words "upon the ground of insanity," and for this reason, that if you find him not guilty without such a qualification he would be entitled to leave the box, and would, perhaps, repeat his crime; but if you add that, then by statute he passes into the control of the Government, and will be locked up, as it is called, during Her Majesty's pleasure, or until such time as those who should advise the Crown are satisfied that he can be safely set free. It is a merciful verdict. It saves the man's life, as it ought to be saved if he is not a moral agent, while on the other hand it protects society against a repetition of those outrages, because he will be placed under the control of the Government, and will be kept in custody as long as it will be right for him to be kept. I do not desire to say one word about the nature of the act if the man had been responsible for it, because it seems to me that burden of proof has, at all events, been very largely met by the prisoner. It is, of course, for you to say whether that burden has not been fully satisfied by him; but if you are convinced he did the act when he was responsible, no words could be too strong, no punishment too heavy for him. If he was not responsible for it, although the life which he put in danger was a life inestimably precious, he ought to be protected as much as if he had only committed the most trivial offence against the meanest subject of the realm. Gentlemen, you must now consider your verdict, and say whether you find him guilty or not guilty on the ground of insanity.

The jury retired at twenty-three minutes past five o'clock, and after an absence of five minutes returned into court. Their verdict was not guilty on the ground of insanity.

The Attorney-General—Then, my Lord, I have to ask that the usual order be made that the prisoner be detained in strict custody during Her Majesty's pleasure.

TheLord Chief Justice—Let that be so.

His Lordship then signed the usual order, and the prisoner, who manifested no emotion, nor seemed to understand his position, was removed from the dock.

ATTACK ON THE LIFE OF DR. GRAY, OF UTICA, N.Y.

In addition to the notice of this assault at the Quarterly Meeting of this Association (p. 290), we give the account of the occurrence contained in the "American Journal of Insanity," for April, in lieu of one which we had previously prepared from other sources. Physicians in asylums cannot but run many risks from their patients. But such an accident from the outside could not have been anticipated, and is a hard fate to befall the member of a humane profession.

"On the evening of March 16th, Dr. John P. Gray, Superintendent of the New York State Lunatic Asylum, and Editor-in-Chief of the "American Journal of Insanity," was made the victim of a murderous assault in his office, in the asylum, by a citizen of Utica, named Henry Remshaw. Dr. Gray, who had reached the asylum but an hour previously, from Washington, where for several days he had been in consultation with U. S. District Attorney, Hon. George B. Corkhill, over the medical portion of the bill of exceptions in the case of the Government v. Charles J. Guiteau, was sitting in the Superintendent's office in the centre building of the asylum, conversing with the Rev. Dr. Gibson, the chaplain, Dr. Blumer, one of the medical staff of the asylum, and his son, Mr. John P. Gray, jun., when suddenly the would-be assassin, who had entered the building unannounced, stepped into the doorway which stood open, raised a large navy revolver, took a hasty aim at the doctor's head, and fired. He then turned and left the building by the front door, and being followed by Dr. Blumer and Dr. Gray's son John, stopped when a short distance down the lawn and again fired, but without doing any damage, and then disappeared in the darkness. Fortunately the appearance of the man's form in the doorway attracted Dr. Gray's attention, as he sat leaning over the table, so that he raised his head, turning his face toward the door, otherwise it is probable that the bullet would have crashed through the brain. It struck the face over the left malar bone, about one-half inch below the external canthus of the eye, passed diagonally downward through the face, and emerged in the centre of the right cheek, two and one-half inches below the external canthus of the right eye, and about half an inch back of a vertical line dropped from that point, making a track through the face of five and one-half inches. In its passage the ball fortunately did no injury to the bony structures. In passing under the nose it went above the anterior nasal spine of the superior maxillary, opening the floor of the left nostril, and driving a portion of the septum into the right nostril. The nasal and labial branches of the superior maxillary nerve were injured in the passage of the bullet, and there was at first complete anæsthesia of the left side of the nose and the left side of the upper lip, with some hyperæsthesia of the right side of the upper lip, with almost complete motor paralysis of the whole lip. So closely was the pistol held to the head that the left side of the face was filled with powder. Fortunately no serious injury to the eye resulted. The hæmorrhage was at first quite profuse, but in a short time began to subside, and ceased entirely in about four hours. Swelling and infiltration were immediate and extensive, and within a very few minutes of the reception of the wound, it was almost impossible to separate the left eyelids, and before midnight the right eye was closed and the face distorted beyond recognition, There was no shock, the pulse ranged between 80 and 90, and the doctor exhibited perfect self-possession. Within forty-eight hours the swelling began to subside under the constant application of iced-cloths. There was no interference by probing. There was a very slight inflammatory action and no suppuration. The doctor bore the severe pain without anodynes. He was sustained by frequent administration of broths, with stimulants and quinine. It was deemed best while his strength was thus well sustained to interfere with nature as little as possible beyond the measures already indicated. The track of the ball through both cheeks united by first intention and the injury to the nasal passages has nearly healed by granulation, so that we look with confidence to a successful result. The favourable progress of the case from the first was undoubtedly largely aided by the coolness, fortitude, and self-possession which Dr. Gray manifested throughout.

"The assailant crossed into Deerfield, an adjoining town, to his brother's-in-law, where he called for two glasses of ale, and said he was going to New York. He afterwards went to the gaol where he gave himself up. When searched there was found upon his person four revolvers, a single barrelled derringer, a dirk-knife, and over two hundred cartridges. He was indicted by

the grand jury, arraigned before the court on March 25th, and through counsel assigned by the court, put in a general plea of insanity. On the 27th he was again brought before the court, and the Hon. Wm. H. Bright, of Utica, Dr. Carlos F. MacDonald, of the State Asylum for Insane Criminals at Auburn, and Dr. Thomas M. Flandrau, of Rome, N.Y., were appointed a commission to examine into his mental state and report to the court.

"Dr. Gray's only knowledge of, or connection with his assailant was while Remshaw was employed as a manipulator at a Turkish bath in the city."

The following has been issued from the Utica Asylum, by Dr. Brush, the First Assistant Physician, under date May 18 :—

"Since April 1st Dr. Gray has continued to convalesce steadily. The infiltration of the left lower eyelid and the injection of the eye subsided more slowly than in any other part. There was paralysis of the lower lid which disappeared at the end of six weeks. Sensation began to appear in the left upper lip during the fifth week, and at the same time the hyperæsthesia of the right began to subside, and in respect of sensation the lip is now nearly normal. The motor paralysis has almost disappeared on the left side of the lip, but still continues to a considerable degree on the right. The portion of the septum of the nose which had been forced into the right nostril, but not completely torn away, was replaced, and has now healed, and the opening on the floor of the nostril is closed. The swelling along the track of the ball through the cheeks has not wholly subsided, but is steadily lessening. For the past few weeks the doctor has been up and about his apartments a good part of each day, has slept reasonably well, has been gaining in colour and strength, and within a few days he has ridden out, so that we feel his ultimate complete convalescence is assured.

"The commission appointed in the case of Remshaw, the assailant, has reached the conclusion, and reported to the court that he is at the present time insane, and he has been sent to the State Asylum for Insane Criminals."

THE TREATMENT OF PAUPER LUNATICS.

On the *audi alteram partem* principle we give copious extracts from an able paper read by Mr. S. W. North, M.R.C.S. (a member of our Association and President of the Yorkshire Association of Medical Officers of Health), at a Poor Law Conference for Yorkshire, held at York a little more than six months ago, under the presidency of the Right Hon. James Stansfield, M.P. The majority of our readers will, we are aware, be disposed to answer Mr. North's question, "Is there any special reason why insane patients should receive more consideration than other sick persons ?" in the affirmative.* At the same time, it is consistent with this opinion to consider whether the workhouse system cannot, under proper safeguards, be carried out further than we generally suppose. We can speak from personal observation of the satisfactory condition of the pauper patients to whom Mr. North's care extends.

On the first day of January, 1881, there were living in England and Wales 73 113 persons whose insanity was certified to the Commissioners in Lunacy. Of these, 65,372 were classed as paupers and chargeable to the poor rate.

The 65,372 pauper lunatics were distributed as follows :—

In County or Borough Asylums	40,816
In other Asylums	1,618
In the Metropolitan District Asylums ...	4,718
In Workhouses	12,093
With friends or relations	6,127

* As will be seen by Dr. Boyd's paper (p. 298) his reply would be similar to Mr. North's. [Eds.]

The weekly cost of maintaining these lunatics during the year 1880 was for each person as follows :—

	s.	d.
In County Asylums...	9	$6\frac{1}{4}$
In Borough Asylums	11	$4\frac{3}{8}$
In Metropolitan District Asylums	8	9

In workhouses probably not more than half these rates, namely, from four to five shillings.

There is no available information as to the cost of those maintained with their friends. The average weekly allowance would probably not exceed two shillings and sixpence in each case.

In these estimates of the cost of maintenance, there is no charge for rent or interest on the original outlay for buildings, land, &c. Not less than from ten to fifteen pounds annually for each patient in asylums for buildings alone, probably not more than from three to four pounds in the case of workhouses.

In County and Borough Asylums I believe the salaries of officers and servants are included in the average weekly cost. In workhouses this is not so, the accounts being differently kept, otherwise the items are pretty nearly the same. It is worthy of note in reference to this question of weekly cost, that in asylums all the officers and servants are required for the care and supervision of the insane inmates. This is not the case in workhouses. Except the special nurses and attendants required to take charge of the lunatic inmates, all the officers are required for the ordinary service of the establishment, irrespective of the presence or not of inmates of unsound mind.

In considering, therefore, the comparative cost of lunatics in asylums and in workhouses, the only addition to the average cost in workhouses as given in Poor Law returns, which can fairly be made, will be the salaries of the special attendants (one for every fifty), their food, and some small addition for extra diet given to the insane inmates.

Such briefly is the number, distribution, and cost of the lunatics chargeable to the poor rate.

From whatever point of view we look at it, social, moral, or economic, an army of 65,372 lunatics, increasing from year to year as a permanent burthen on the State, maintained at a cost of not less than a million and a quarter annually, housed, so far as those retained in County or Borough Asylums are concerned, at a further primary cost of not less than from two to three hundred pounds for each person, the facts constitute a question of the highest importance for statesmen, moralists, and economists. Every aspect of the subject is invested with an interest second to none in all that concerns our domestic legislation.

Of four subjects Mr. North proceeds to discuss, we have only space for two, namely :—

1. To examine in detail the various forms of mental unsoundness, with especial reference to the kind of provision suitable and necessary for the proper custody and treatment of each class of cases.

2. To consider how this proper care and custody may be provided, with due regard to the interests of the lunatic on the one hand and the ratepayer on the other.

I.—The first question, namely, the forms of insanity, as being all important to the conclusions I wish to draw, must be considered at some length and in more detail.

From a practical standpoint I group cases of insanity as follows :—

1. The acute forms, whether characterized by mania or melancholia, including those dangerous to themselves or others.

2. Imbecile and idiotic children.

3. States of dementia, whether as the termination of acute lunacy, the result of structural disease, or the consequence of senile changes. With these I group imbecility in adults.

Into these three groups all known forms of insanity may, for the practical purposes of administration, be divided ; and, for the same purpose, they sufficiently separate insanity into two great groups—the first, including the acute forms of the disease and imbecility in childhood ; the second, the degenerative and less hopeful forms, and imbecility in adults. The first requiring diligent care, supervision, and treatment, with a view to recovery ; the second needing only suitable care, comfort, and protection, with occasional treatment guided by the special knowledge and experience we possess of what is necessary for the proper custody and treatment of these less hopeful forms of insanity.

The first two groups in this classification, which include the acute forms of insanity and imbecility in early life, embrace nearly all the forms of mental unsoundness which demand special treatment in appropriate institutions set apart for the purpose.

Cases of acute insanity, for the most part, occur in adults who have not passed middle life. The disease is generally somewhat sudden in its invasion, and is characterized by active symptoms. The subjects of the malady are often violent, difficult to control, and dangerous to others. In the melancholic forms, they are prone to suicide, to refusal of food, and other symptoms which call for active supervision and treatment. The disease, on the whole, under suitable management, tends to recovery.

With regard to imbecility, it is admitted that many persons, subject to training in early life, may be rendered useful and decent members of society. Where this is probable, they are fit subjects for exceptional treatment. I confess that I am not satisfied with the expediency of spending large sums of money where the results are not equal to what might be accomplished with an ordinary dog in the course of a week. With such persons, it is difficult to avoid the uprising of the thought, is the prolongation of their life a thing to be desired?

The third group in my classification includes the varied class of imbecile adults, who

being adults, are removed from the hope of benefit by special training. Amongst these are a large proportion of feeble-minded women of immoral habits and tendencies; others both male and female, who are irritable, and prone to violence on slight provocation, a race presenting every phase from simple weakness to idiocy, a class in which in the ascending series, it becomes frequently difficult to decide for or against seclusion. In comfortable homes, and with reasonable supervision, many of them do well, and under the direction of others may earn their own living. Without proper homes, and destitute of supervision, they become brutish and degraded, a nuisance to the public, a scandal to morality, and the sport of the unthinking. This group further includes nearly all the cases of mental unsoundness due to degenerative changes in the brain structure. The dementia of chronic softening or other definite disease, and the dementia arising from atrophy incidental to old age, a stage of life not always to be measured by years. Large numbers of those who were never mentally strong, and of those who for long periods of time have been ill-fed and ill-housed, sink into this state long before the allotted period of three score years and ten; the group also includes those who have sunk into this state as the sequence of acute mental disease.

For this great group all that is required is simply provision for safe custody, reasonable comfort, and proper supervision. Yet any one of these might, and hundreds of them are sent to asylums, and large numbers of chronic cases are retained long after all hope of recovery is past, and long after all active manifestations have ceased, without any regard for the question of cost.

In considering the requirements of this third group, I am, from the nature of my definition, confronted with a difficulty of the utmost importance in determining who ought, and who ought not to require the custody and restraint of an asylum, or similar institution; a difficulty which should ever be borne in mind when considering the propriety of providing for the detention of persons of unsound mind.

It is this:

Amongst the independent and well-to-do classes, that is those who have not to work for their living, a degree of mental unsoundness may be quite compatible with liberty which would not be so amongst the poor. With the wealthy to be helpless is simply to require more care from family and friends. With the poor it too often means dependence on the poor rate, combined with the protection of an asylum or a workhouse. Hence the question of detention or not, in numerous cases, does not so much depend on the mental condition of the patient as on the ability or willingness of others to bear the burden. A wealthy mother can, with the help of servants, take care of an imbecile child, children, may, and frequently do, provide in their own homes for the care and comfort of a demented parent. It is often a question of means quite as much as one of will.

Amongst the poor suitable care of helpless persons in their own homes is, in the great majority of cases, all but impossible. Hence a large number of imbecile or demented persons of this class find their way into pauper asylums and workhouses.

It is a fact of which I have no doubt, that, but for reasons of poverty, large numbers of the insane poor would be kept at home, would never be certified, and would never swell the list of lunatics.

The mentally helpless are at all times a burthen to the family. They involve personal supervision and responsibility, hinder pleasure or work, as the case may be, more or less disturb domestic comfort, especially in small houses. Hence it is, comfortable provision being made for the custody of such persons, there is an increasing tendency to place them in public institutions. The institution, in fact, often affords a most ready and acceptable means of relieving a family from a heavy and grievous burthen.

It cannot be too strongly pointed out to all who take an interest in legislation for the insane, and to all who make an outcry about what they are pleased to call the improper restrictions on liberty, that freedom at home, or residence in an asylum, is, in a large number of cases, determined not so much by the nature of the case as by the ability or willingness of families to take proper care of their insane relatives.

There is no reason, in the abstract, either in law or in morality, why the life of a whole family, or even of a single person, should be rendered miserable by the daily presence of a dirty, demented patient, or a querulous and sometimes violent imbecile; or why a family should be reduced to pauperism in order that a husband may stay at home to look after an insane wife, or why children should grow up under the baneful influences engendered by the presence of such people in their midst.

They may be spared the burthen without being relieved of the cost of maintenance.

The position thus raised has, obviously, an important bearing on the kind of provision necessary for a large section of the insane poor.

The fact that public institutions afford facilities to families, irrespective of any desire or need for treatment, for being relieved of a burthen has never been rightly or fully considered in dealing with the question of lunacy. The motives and the circumstances under which admission to an asylum is sought have never, as yet, met with that candid consideration which they deserve.

Unsoundness of mind and fitness for care and treatment, are terms supposed to cover the whole question. But they by no means indicate the kind or quality of the provision to be made, a question all important when the cost has to be provided out of the public purse. The sort of seclusion which is desirable or sufficient is from this point of view, quite as important as its necessity.

II.—This brings me to my second question—how proper care and custody may be provided with due regard to the interests of the lunatic on the one hand, and the ratepayer on the other.

Let us consider the principles involved. Is there any special reason why insane patients should receive more consideration than other sick persons? On the determination of this question hangs the whole principle of the treatment of lunatics.

Sickness in any form is a great misfortune; it is to the individual the cause of pain and distress, it limits his comfort, interferes with his activity, diminishes his capacity for work, and the power of maintaining his family, and often reduces a whole household to poverty, destroying the prospects of many besides the individual sufferer. Lunacy is but a form of sickness, its results, whether to the individual, or to his family, are frequently not worse than the results of other forms of disease.

A case of cancer often of long duration, of consumption, a lingering disease, and many other forms of sickness with which we are familiar, are quite as painful to the sick man and his family as a case of insanity. They call for as much comfort and care on the part of those whose duty it is to provide these things, and yet thousands of these die annually in garrets, in lodging-houses, in workhouses surrounded by few, if any comforts with medical aid supplied on the narrowest basis, dependent on charity, or the weekly dole of out-door relief for such subsistence as is necessary to stay the hand of death; unprotected by minute and careful legislation, their treatment not overlooked by skilled commissioners, they are born, and they die surrounded by little human sympathy. Surely all this is anomalous in the extreme. No logic can discover why the whole machinery of the law should be available to protect the liberty, and secure the comfort of some demented old woman; whilst it passes by the seething misery of thousands as helpless and as unable to secure attention, as those for whom so much is done. The money drawn from the hard earnings of the industrious, is spent with a lavish hand on the victims of one disease, whilst it is all but impossible to secure decent comfort and attention for the sufferers from other diseases. Is it that lunacy was once regarded as a sacred malady, and does superstition still govern our actions?

I hold emphatically that the same principle should guide us in the provision made for one form of disease as for another. The sick should be cured with as little delay as possible. Those incapable of cure should be content with such decent comfort as their necessities may require: To cure the sick, is as sound a principle of economy as it is of humanity, hence in lunacy, as in all other forms of disease, where the patients are dependent for their treatment on the public purse, it is wise, guided by sound principles of administration to do what science and experience teaches us is most likely to accomplish the end in view, viz., the recovery of the patient.

But the hope of cure having passed away, the same principle should teach us that it is our duty to reduce the cost of maintenance to as low a level as is consistent with the provision of things necessary.

The great principle of the Poor Law is that it should not raise the condition of the recipients of relief above that of those who can with care provide for themselves.

This principle is sound in every respect; every departure from it is fraught with mischief to the poor and is unjust to those who have to provide the means. Such are the principles which ought to guide every department of national relief.

The deduction from these principles which I would urge on the Conference is: that it is the business of the State to see that the cost of incurable lunacy is reduced to the lowest amount consistent with efficiency.

The great question is, how is it to be done? My answer is, that the workhouses of the country ought to be so arranged as to provide accommodation for this class, in the same way as they provide for other forms of disease. That, in making this provision we should secure not only economy, but a more strict adherence to the principles of local self-government than we do at present. This will never be rightly accomplished until every class of pauperism is brought in some form or other under the control and management of one and the same central authority.

The Local Government Board, in their official capacity, as represented by their inspectors, know nothing of lunacy, they only look upon lunatics as so many paupers. The Commissioners in Lunacy know nothing of Poor Law Administration, do not understand its principles, and take no note of the economy which their principles inculcate. Hence a conflict of opinion at all times undesirable.

It is said by some, that the cost of maintaining lunatics in workhouses is little less than it is in asylums. This certainly is not the case. The cost of maintenance in pauper asylums is nearly double what it is in a well-managed workhouse, to say nothing of the enormous difference in the primary cost of buildings, land, &c.

In a large workhouse, with the management of which the author is familiar, the average cost per head last year was 3s. 6d. weekly; the extra cost per head of the adult sick, including lunatics, was 1s. weekly. To this may be added 3d. weekly, as the cost of attendance and rations, bringing the total cost of the adult sick and insane to 4s. 9d., just half the average cost in county asylums. In this workhouse there are at present 125 persons certified as insane; of these a very large proportion are such as may be found in the wards of any county asylum. The percentage of lunatics maintained in this workhouse compared with those in asylums is larger, I believe, than that which is to be found in any other union in the county. The result of this is a saving of not less than a thousand a year to the rate-payers of the union. It is the custom in this union, and the desire of the Guardians, to send to the asylum every case which, in the opinion of their Medical Officer, needs the special care of an asylum; and, so far as I know, no single case has ever been kept in the workhouse to the prejudice of the patient.

I have a strong conviction that there are large numbers of cases of persons, who, for the time, are the subjects of acute derangement amongst the pauper class who nevertheless

ought not, in the first instance, to be sent to asylums, such as the mania from drink, the mania of hysterical excitement, the dementia of habitual intemperance, the dementia and melancholia directly due to want, a group of cases which, with few exceptions, when supplied with warmth, wholesome food, and deprivation of alcohol, rapidly recover. Amongst the well-to-do classes, such of these cases as arise are never sent in hot haste to an asylum. No sensible practitioner would ever advise such a course. As a fact, every man in large practice sees, in the course of a year, numbers of such cases, and never dreams of suggesting an asylum. He would gravely err if he did. Such cases cannot, as a rule, be kept in the hovels of the destitute poor. Why should not the same discretion be allowed to the medical attendant on a pauper as is the daily practice of private practitioners? Why should not such cases be sent to the workhouse for supervision. There is no mystery or magic in the wards of an asylum. To all intents and purposes, the lunatic wards of a well-regulated workhouse are as suitable as similar wards in an asylum. But, no! this, say the Commissioners, cannot be allowed; and, I suppose, that if any responsible person were to inform a relieving officer that some old woman was out of her wits, it would be his duty to take her before a magistrate, and he, having called to his assistance a medical man, would send the said old woman to an asylum. This is the course which every relieving officer would take who is nervously anxious lest he should be prosecuted for neglect of duty. What I contend for under this head is, that there should be some careful and skilled discretion exercised, in the first instance, as to who should and who should not be sent to an asylum.

Apart from the question of economy, there is another advantage arising from the detention of harmless cases in workhouses, namely, the facilities which are afforded for the frequent visits of friends, for occasional holidays, all of which serve to keep alive that sympathy between the sick and their relatives which is so desirable.

There is one other subject relating to this question to which I must refer, seeing the influence it undoubtedly exercises in inducing Guardians to send hopeless cases to asylums, and to keep them there. I allude to the grant from funds provided by Parliament of 4s. a head on all pauper lunatics, inmates of asylums. I have no sympathy with this kind of assistance to local rates as a general principle; but with this I have no concern. The tendency of all such aids seems to me to lead to the diminution of local responsibility, and to impair the efficiency of local self-government. In this particular case it affords a direct inducement to needlessly increase the number of inmates in our asylums. As an example of what it does, I am told that not long ago a union whose workhouse was overcrowded, and who found an asylum that was not, sent all their lunatics to the asylum rather than incur the cost of increasing their accommodation, and thus in the most costly and most extravagant manner secured the space they required.

If every bed in an asylum costs from two to three hundred pounds, then every case needlessly sent from a workhouse costs, in addition to the increased charge for maintenance, a rental of from ten to fifteen pounds a year for building, ten pounds is recouped to the union at the expense of fifteen to the county. The charges of one authority are reduced by increasing those of another, to more than the same amount. Another evil arising from divided administration.

The questions which in this paper I desire to submit to the Conference are :—

1. That it is the duty of Boards of Guardians to provide for all their sick, including lunatics, whether in asylums or elsewhere, such treatment as they may require, and that for cases of acute and curable insanity, asylums afford the best provision.
2. That for chronic and incurable cases of insanity it is their duty to reduce the cost of maintenance to as low a level as is consistent with their proper care and custody.
3. That the provision of suitable wards and attendants in connection with workhouses affords the best and most economical method of providing for the wants of this class.
4. That some supervision should be exercised over the class of cases sent to asylums.
5. That all pauper lunacy, certainly that in workhouses, should be placed under the direct control of the Local Government Board, who by the aid of skilled inspection should bring the management of pauper lunacy into harmony with the principles of the Poor Law, having due regard to the requirements of the sick on the one hand and the interests of the ratepayers on the other.

TESTIMONIAL TO DR. BRUSHFIELD.

In our last issue we announced the retirement of Dr. Brushfield from the Surrey Asylum. He has not been allowed to quit his post without several Testimonials which must be gratifying to him as a proof of the regard in which he has been held by those who knew him when engaged in the fulfilment of his daily duties. On the last day of March an address was presented by the officers and staff of the asylum, accompanied by a claret jug and candelabra as a testimonial of their regard, "to help to keep us and the time you have spent here always in your remembrance, and testify to your children after you the high esteem in which their father was held."

In May Dr. Brushfield's numerous friends in the county, headed by the Vicar of Woking, made a handsome presentation to him, consisting of valuable plate, and an arm chair in which we hope the late Superintendent of Brookfield will enjoy the *otium cum dignitate* which he has justly earned. We hope it has been constructed on the principles which Herbert Spencer says ought to be followed in making a chair. Dr. Brushfield replied on both occasions in feeling, and we need not say fitting terms.

Correspondence.

"PROPOSED STATISTICAL TABLES."

To the Editors of THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—Such a change as that proposed by adoption of the Tables lately presented by the Statistical Committee of the Psychological Society warrants my addressing you in this form, for by this means my remarks will reach my fellow-superintendents, and they, as those who make the returns, are chiefly interested in this subject.

In 1864 a committee was appointed to draw up statistical tables for our Society. In 1865 they presented a report and six tables. In 1867 a second report was issued, with an increase of four tables. At that period 27 asylums had already adopted these tables. In 1877, taking as a whole the English County, City, and Borough Asylums, and the Scotch Royal and District Asylums, of 83 asylums issuing reports 52 had adopted these tables, the Irish and the Scotch District and Royal Asylums being the principal defaulters in their adoption. At present, without investigating closely into the matter, I am aware that one district asylum in Scotland, and at least two Royal asylums, do not use the tables.

The Tables of our society are fairly adopted. They were drawn up by good men, and they afford a certain amount of information. They should only be superseded after consideration, and on the recognised belief that the new tables are greatly superior.

The following are manifest advantages in the new tables: That they deal with *persons*, not *cases*, that they give the deaths at the different ages, and that they show the ages of the patients resident at the end of the year.

The following are defects: The optional character of Table 11a. If of use, it should be numbered and included in the series; if not valuable enough for this, it should not exist. Statistical information of this nature derives its chief value from the number of returns made in a uniform method preventing small errors from vitiating totals.

Table XI. subdivides the patients in a valueless mode. The first division into curable and incurable is clearly antagonistic to what should be, from a physician's point of view, and some of the other subdivisions are unworkable.

So much for defects. Now for omissions. It strikes me that in this proposed series of tables; statistics of admissions, discharges, and deaths, have obscured the view point of the physician, anxious about causation and the variety of insanity, its connection with physical disease, and its termination. It should be clearly stated whether the cause of death was ascertained by post-mortem examination or merely conjectured. Some uniform return should surely be made of the form of insanity in those admitted. A table showing the bodily condition of those admitted would be useful, with the special connection of some diseases noted, such as phthisis, cancer, &c. A table showing hereditary predisposition where it exists, its degree, and whether paternal or maternal, would be most valuable.

A table showing clearly the marked and easily recognised varieties of cases of congenital, epileptic, general paralytic, puerperal, and senile insanity would be of practical use when taken in conjunction with the ages of the resident patients at the end of each year.

I do not at all see why this series of tables should be limited to thirteen. The recognised incompleteness of the present series has caused them to be supplemented in many reports by exceedingly useful tables.

I regret to have to say that the proposed series savours more of the actuary than the physician.

The proposed tables were at last general meeting referred for discussion to the quarterly meetings. They have been discussed at three meetings in the north, and, as a whole, the tenor of the remarks was not favourable. They have never been discussed at the London meetings, although placed on the agenda—a matter much to be regretted.

I trust that this matter may receive careful consideration from the English County Asylum Superintendents who form the bulk of the members, who might be inconvenienced if the tables prove to be exceeded in value by the labour of making them.

I would, while expressing my thanks to the Statistical Committee, respectfully suggest that the subject of statistical returns be reconsidered, and that a greater aim and wider scope be included. There *should* be no difference of opinion of note as to a series of tables about to be promulgated by a *select* Committee of a Society such as ours is at present.

I venture to hope that as I contributed a paper on the subject of statistics in our Journal in 1873, and as the report of the asylum I superintend contains at least as much statistical information as most reports, the above remarks will not be imputed either to lack of scientific zeal or to laziness.

Garlands Asylum, I am, &c.,
May 25th, 1882. J. A. CAMPBELL, M.D., F.R.S.E.

[The English Statistical Committee had not at the above date concluded its labours. Dr. Campbell will find most of his suggestions do not apply to the Tables in their revised form, as proposed at the last meeting of the Committee.—EDS.]

ASSAULT ON DR. ORANGE.

Our readers will have learnt with great regret from the newspapers that, on Monday, June 6th, Dr. Orange received a severe blow on the head from a patient in Broadmoor, the Rev. H. J. Dodwell, the man who fired a pistol at the Master of the Rolls several years ago. Mr. Dodwell had made a request to Dr. Orange respecting a letter which he said he wished to write to a brother residing abroad, and while the doctor was seated in a chair and was engaged in looking over some papers which Mr. Dodwell had asked him to read, the latter, who was standing by his side, suddenly and without the slightest warning dealt him a heavy blow on the crown of the head with a stone slung in a handkerchief. Happily Dr. Orange, although somewhat stunned, was able to hold his assailant, and prevent him from inflicting any further injury, until he was secured by the attendants. The motive which prompted the act appears to have been similar to that which instigated the firing of the pistol at the Master of the Rolls. Dodwell says that more than a year ago he had made up his mind that as the firing of a pistol not loaded with ball at the Master of the Rolls had not proved sufficient to obtain for him what he imagined was justice, he should be forced to commit some still more serious act, and he came to the conclusion that nothing less than an act of murder would be sufficient to deliver him from the conspiracy of which he insanely imagines himself the victim.

We are glad to know that Dr. Orange has been steadily recovering from the effects of the blow. No bad symptoms appeared, but quietly staying in bed was enjoined by his medical colleagues, Drs. Nicholson and Isaacs, and Dr. Bastian.

We are sure that the feeling of every member of the Association will be in accord with our own, in expressing regret that Dr. Orange should have been subjected to so dangerous an attack, and satisfaction that he has escaped (as at the present time he appears to have done) any serious consequences. The case affords another proof of the risks to which the superintendents of our asylums are liable.

Appointments.

MITCHELL, RICHARD BLACKWELL, M.B., C.M.Ed., to be Assistant Medical Officer to the Fife and Kinross District Lunatic Asylum.

HAMMOND, THOMAS, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., to be Resident Clinical Assistant to the West Riding Asylum.

WOOLLETT, SIDNEY WINSLOW, M.R.C.S., L.S.A.Lond., to be Junior Assistant Medical Officer to the Banstead Asylum.

COX, LLEWELYN FREDERICK, M.R.C.S., Assistant Medical Officer Wilts Asylum, to be Medical Superintendent of the North Wales Counties Asylum, Denbigh.

HITCHCOCK, CHARLES KNIGHT, M.D., M.A.Cantab., to be Resident Clinical Student at Bethlem Royal Hospital for six months.

HOLDSWORTH, ARTHUR T., to be Assistant Medical Officer to the Leicestershire and Rutland County Asylum.

SALTER, JOHN REYNOLDS, M.B.Lond., M.R.C.S., L.S.A.Lond., to be Second Assistant Medical Officer to the Kent Asylum.

COMPTON, THOMAS J., M.B., C.M.Aberd., to be Senior Assistant Medical Officer to the Norfolk Asylum.

MCWILLIAM, ALEX., M.A., M.B., C.M.Aberd., to be Junior Assistant Medical Officer to the Norfolk Asylum, *vice* T. J. Compton, promoted.

BLAXLAND, HERBERT, L.R.C.P.Lond., M.R.C.S., to be Medical Superintendent of Calland Park Hospital for the Insane, Parramatta, New South Wales.

HUMPHREY, G. MURRAY, M.D.Cantab., F.R.C.S.E., to be Senior Honorary Consulting Surgeon to the Eastern Counties Asylum for Idiots.

MACBRYAN, HENRY C., F.R.C.P.Ed., Assistant Medical Officer South Yorkshire Asylum, Wadsly, to be Assistant Medical Officer to the Staffordshire County Asylum, Burntwood, Lichfield, Staffordshire.

DAVIS, A. N., L.R.C.P., to be Assistant Medical Officer to the Portsmouth Asylum, *vice* J. F. Woods, M.R.C.S., resigned.

Change of Address.

Dr. Brushfield's new address is The Cliff, Budleigh Salterton, Devon.

We regret that a review of Luys on the Brain, the American Retrospect, and the Psychological Retrospect, have been unavoidably left over to the October number.—[EDS.]

THE JOURNAL OF MENTAL SCIENCE.

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PART 1.—ORIGINAL ARTICLES.

Presidential Address delivered at the Annual Meeting of the Medico-Psychological Association, held at the College of Physicians and Surgeons, Glasgow, August 2nd, 1882.

By W. T. GAIRDNER, M.D. Edin., Professor of Medicine in the University of Glasgow, and Physician in Ordinary to H.M. the Queen in Scotland.

GENTLEMEN,—In taking the chair of this Association allow me to offer to the members, whether present or absent, my sincere thanks for the honour they have done me in electing me their President. I frankly confess that I was not at all prepared for this honour, nor do I see quite clearly even now how it came about that a body of men devoted, both by personal tastes and by official position, to the cultivation of one particular branch of the great medical art and science, should have thought fit to honour with their confidence one whose relations with that special work are only those of the profession at large. At all events, it may justly be said that in having thus acted, you have most emphatically pronounced for the doctrine that the profession of medicine, and the healing art on which it rests, are *one*, and not manifold; and that as among the different churches, and even sects, we may hope to find a common Christianity, so among all the distracting specialisms of our own profession, we may reasonably hope to find one faith, one object, one discipline of the mind, and, to a great extent, one great *science*, both of mind and of bodily function, underlying all the diversities of our various careers as physician, surgeon, gynæcologist, oculist, aurist, alienist, &c.

It will be my object to make this truth, which I believe to be a fundamental one, in some degree the theme, or motive, of the address which the custom of your Association, and your very great and unlooked-for kindness, has imposed

upon me as a duty on the present occasion. But in doing so I must by no means forget what indeed I am forcibly reminded of by the letter in which your last distinguished President signifies to me his intention of being present at this meeting in Glasgow. "We come to Scotland," he writes, "determined to enjoy ourselves, and to 'throw physic to the dogs.'" If this little glimpse that I have accidentally obtained of the temper of your late President represents at all the frame of mind and body proper to the Medico-Psychological Association to-day, it points out to me most unmistakably that there is one particular in which I may not even attempt to follow in his footsteps. No one can have forgotten the elaborate and most informing and eloquent address with which he favoured us last year, and which justly called forth the praise of the venerable Earl of Shaftesbury, bearing as it did upon the whole advance in the management of the insane, with which no names are more indissolubly associated than those of Tuke and of him who was once called Lord Ashley. No such address can you expect from me upon the present occasion. Even were I competent to give you "physic" for Dr. Tuke's "metaphysic" (as would be fitting for a professor of physic in the presence of a Medico-Psychological Association), I am bound to hold, with your ex-President's later mind, that both physic and metaphysic are to a great extent out of place when you are looking forward to a holiday on the Clyde; and when, to meet the exigencies of trains and steamers, the President's address must be restricted to the narrowest limits of time; when, indeed, the chief object to be served by addressing you at all is simply to avoid its being on record that the ceremony has been altogether omitted.

The duty, then, which stands before me—the question I am asking myself—is this: What can I say to you in this necessarily limited time that will in any degree touch a responsive chord in your breasts, to show that you, as being what the world calls *specialists,* and I, as a professor of medicine in general, have in reality but one aim in view; that we are guided by one and the same scientific method and doctrine in dealing with the unsound mind on the one hand, and the unsound body on the other? To justify our belief that we are all one profession (which I hold to be indisputably the case), we must, in the end, be able to show that we work upon the same lines, with similar instruments both of research and of cure; that we aim, not at separating

and dissecting the complex of functions which constitutes human nature into a bodily and a mental part; but that each of us, in his own separate sphere, is dealing with humanity as a whole, in which body and mind are inextricably interwoven. This I believe to be the true philosophy of the healing art, in all its separate departments; and whoever, even for a moment, forgets this, its essential unity, founded on the larger unity of human nature to which it ministers, has already gone some steps on the fatal road that leads to unworthy views of his profession. He has, in other words, already adopted a position which, when biased also by low moral proclivities and the love of money, soon gives place to quackery. We witness this degradation of the healing art every day in the case of those specialisms which, attracting as they have done some of the noblest and most active minds in our profession, have also become the pursuit of some who, it is not at all a harsh criticism to say, have become specialists only with a view to personal advantage. Hence, while even in the most extreme specialisms, the eye and the ear, we have had on the one hand such every way excellent men as Toynbee, and Hinton, and Mackenzie, and Dalrymple (to name only the dead), we have had, on the other, men who have been content to remain in complacent ignorance of the bearings of medical science at large on their specialism, if only they were allowed to cultivate it in a corner, as it were, for the benefit, not of humanity, but of the particular and individual man cultivating his particular and individual organ, eye, or ear, or skin, or spine, or womb, as the case may be.

You, gentlemen, are not open to these base suggestions. It is a characteristic of your work that it has become a specialism, not through individual impulses or for individual gain, but through circumstances in the nature of the work itself, making it in some degree a public function, and thus guarding it in a large measure from becoming a prey to the vampires whose only business with the medical art is to drain its life-blood for their own particular use and advantage. Most of you are at the head of accredited institutions, where you are safe from all reproach, and can well afford to look down benignly on the men whose vocation it is to earn their chance guineas more or less honourably; but, if honourably, still with a trembling solicitude lest the contrary motives should ever be imputed to them. Although protected by happy circumstances, however, from the baser

temptation of venality in the practice of your art, you are by no means secure against the tendency inherent in all specialisms, legitimate or otherwise, to dissociate their cultivators from the general stream of tendency, so to speak, and from the actual facts and principles of the healing art in general. In some respects you are perhaps more than most others in danger of this. For you can, if you so please, live, and even live happily and well employed, quite apart from medical progress, and from general medical society. You have large administrative as well as strictly medical functions, and it would be by no means surprising were the former in a great measure to supplant the latter, and the treatment of the insane to become a specialism wholly divorced from the progress of medical science and of the medical art. It is not too much to say that whatever else is intended by it, the honour you have done me in placing me in this chair is a distinct recognition of the fact that such divorce is possible, and that you would regard it as a misfortune. You wish to draw closer the bond between psychological medicine and general medicine. You wish to declare somewhat emphatically that while you are, officially, devoted to the treatment of the insane, you have not ceased to be physicians; that in dealing with the unsound mind you are dealing, not with the *mind* alone, but with the *man;* in other words that you are doing exactly what I am doing every day—considering a particular ailment in its relation to the whole of the functions that make up mind and body, and treating it accordingly.

It is from this point of view that I am led to think that a few glimpses (for it can be no more) into some of the relations existing between your specialism and the healing art in general may be made interesting during the limited time at our disposal. But to such of you as have devoted attention (as I daresay we all have more or less) to the intricate questions arising out of cerebral and mental pathology as bearing on the cause or causes of insanity, the responsibility and capacity of the insane, and other subjects which grow out of the very depths of the philosophy of mind as related to organisation, I have to say that I shall not today enter on any of these difficult questions. I am not, indeed, at all wedded to any theory of the association of "Mind and Brain," or of "Body and Mind;" but I hold it to be an unquestionable truth that the analogies, and even the laws, of bodily function shed an immense amount of light on the study of mental diseases, and *vice versâ.*

In seeking for evidence of this position I will not linger over points of recondite and doubtful pathology, but I will go at once to what must be regarded as one of the most brilliant advances of the healing art that has taken place within the compass of two generations, or even of a century—the improved, or, as it is often called by way of contrast, the *modern*, system of treatment of the insane. Taking origin in the last decade of the eighteenth century, this may be said to culminate in the present decade of the nineteenth, in such a large pauper asylum as Woodilee, which, at half an hour's distance from Glasgow, and easily accessible at all hours by rail, may be specially commended to your notice, as under the care and superintendence of our Scotch Secretary, Dr. Rutherford. What is the essential basis of the great and beneficent change which now-a-days not only permits of our dispensing with all the old miserable paraphernalia of physical coercion and restraint, but has advanced so far as to consider even locked doors, and bolts, and bars, and every attribute and reminder of prison life, as more or less an obstacle to the perfectly rational, and at the same time thoroughly humane treatment of insanity in our asylums? Or rather, let us say, what is the common principle, speaking of it from the physiological and medical point of view, illustrated in all the changes that make the difference between the Bedlam of 1815, whose manifold abuses, as laid bare by a parliamentary inquiry, are so well known to all of us, and the Bedlam of 1882, under the control and supervision of our friend, Dr. Savage? Religion, practical Christianity, the growing sense of humanity, the growing dislike to extreme severity, which have tempered our whole legislation during the lapse of this interval, have no doubt a large share of the credit; and it may even be said that reforms have been forced upon unwilling minds, medical and non-medical, by the same legislative impulses, the same moral necessities that have compelled the abolition of slavery, the gradual restriction of capital punishment, the improvements in the condition of our criminals, of our paupers, of our mining and factory populations, of our over-crowded masses in the towns, of our often ill-housed and ill-nourished agricultural labourers. The names of Howard, Wilberforce, Romilly, Chadwick, and Lord Ashley—now Lord Shaftesbury—stand out in strong relief as the persistent advocates of what may be called, without prejudice to their real importance and practical efficiency, a great series of humanitarian reforms. Lunacy reform was no doubt one of these, and it was taken up and forwarded by

many active and generous minds, amply prepared through their previous training in other departments, and by the evolution, as it were, of the historic and moral conscience of humanity, to deal with the shocking abuses in the management of the insane as a matter of social, moral, or religious duty. But it is not to be forgotten that legislative action against gross abuses is something quite distinct from, although indeed largely due to, the firm grasp of principles which enabled William Tuke, and Pinel, and Conolly, and many others to initiate and carry out positive reforms in moral treatment, far outstripping, alike in their designs and in their result, the course of legislation. The mere abolition of whips and instruments of torture, even had it been possible as a legislative reform apart from enlightened medical opinion, would have gone a very small way towards carrying out what we now recognise as a scientific, not less than a humane, treatment of the insane. It may even be affirmed with certainty that had the strait-waistcoat finally approved itself to the medical mind as a necessary and successful means of dealing with maniacal violence, no legislation could possibly have done away with it, however strong might have been the disposition, on grounds of humanity or of religion, to limit the application of severe and rigorous means in the management of the insane. Indeed, it is abundantly evident from the history in detail of the movement itself that neither religion alone, nor philanthropy alone, nor yet both of these acting together with such medical philosophy as prevailed during the greater part of the eighteenth century (and much more in the preceding ages), could ever have brought us to the point at which we now stand. What was wanted, and what has been, step by step, attained, was the application of strictly scientific principles of treatment, in accordance with an enlightened view of physiology and of human nature, to a class of cases in which, more than in any other, medical considerations had been subordinated to the mere impulses of fear, and the still more ignoble inpulses of selfish greed and dark superstition, whereby the insane had been placed for centuries almost outside the pale of our common humanity.

As if to show that, historically speaking, the improved treatment of the insane was not the result of any single, or of any exclusively national, impulse, we have the very curious fact that in the last decade of the eighteenth century, the attention of Europe was startled by two perfectly novel experiments—the great reform at the Bicêtre by Pinel, and the closely cor-

responding, but perfectly independent, movement by William Tuke, which issued in the founding of the Retreat at York. No two men could possibly have been chosen out of all Europe at that time of whom it could be said more truly that they were cradled, and nursed, and educated among widely differing social, political, religious influences—the one a member of the Society of Friends in England; the other a child, if not a nursling, of the French Revolution. Tuke had to work his way amid obstacles, no doubt, but in a moral and religious atmosphere predisposed to philanthropic ideas, and devoid of political passions. Pinel had to take his orders from Couthon, fresh from decreeing the abolition of monarchy and the sovereignty of the people, ere he could loose the fetters of a single lunatic in the Bicêtre. Yet in this particular matter Tuke and Pinel were possessed by one and the same idea, and worked it out as though it were an inspiration. And an inspiration it was, without doubt, if we are to believe in an over-ruling Providence in history at all. For it must have happened often enough before that good men and true must have had misgivings, and even shuddered in their secret souls at the cruelties practised upon the insane. But now the fulness of the times had come, and by a two-fold experiment, carefully and deliberately conducted in France and in England, a latent, and all-but-forgotten, truth was to be gradually brought into the full light of civilisation, viz., that the unsound mind, like the unsound body, can only be regarded as an instance of disordered function; and that, however great the disorder, the functions are still there, and may be roused into more or less healthy activity by exactly the same physiological stimuli and motives as are available in the state of health. "Vous voyez," writes the Swiss physician Delarive, visiting the Retreat at York only two years after it was opened (1798), "que dans le traitement moral on ne considere pas les fous comme absolument privés de raison, c'est-à-dire, comme inaccessibles aux motifs de crainte, d'espérance, de sentiment, et d'honneur, on les considere plutôt, ce semble, commes des enfants qui ont un superflu de force et qui en faisoient un emploi dangereux."*

* I have great pleasure in taking this extract from a work which came into my hands only two days before the delivery of this address, and which is at once the most recent, and one of the most valuable contributions to the literature of the subject, by the late President of the Medico-Psychological Association—"Chapters in the History of the Insane in the British Isles." By Daniel Hack Tuke, M.D., F.R.C.P., &c., London, 1882. See p. 117.

In other words the insane, who had long been regarded as mainly objects to be restrained, governed, and as far as possible kept out of sight, nay, even regarded as "possessed," *i.e.*, *not* human, but in a very sadly real sense out of the pale of humanity, were to be deliberately and in the fullest sense readmitted within the pale, and even treated with more consideration than others on account of their infirmity.

It may seem strange in the present day that this lesson should have had still to be learnt in the nineteenth century; nay more, that it should have required the successive examples of Charlesworth, and Gardiner Hill, and Conolly, and perhaps of others extending down to our own day, to confirm and extend the humane principles affirmed by Tuke and Pinel, and make them thoroughly a part of the great heritage of our art. But it is to be remembered that mere selfishness and apathy and ignorance were not the only evils to be overcome, perhaps not even chiefly these in the case of the medical, as distinguished from the more general management, or police of the insane. The theory of almost all diseases up to a comparatively late period was that they were *entities*, by which I mean a physical, or metaphysical, or metaphorical *something* (it is not always quite clear *what*, even in theory) distinct from the organisation, and to be got at, and removed from it, only by disturbing remedies, more or less of the nature of antidotes to a strong poison, or at least equally obnoxious to the normal functions of the body. I do not think I shall be accused of overstating the case if I say that this general theory, greatly shaken, it is true, in the earlier part of the century alike by the progress of physiological science and by the extravagant claims of certain modes of practice, has been finally dislodged, as a general or working theory, within my own time; and no inconsiderable part of the credit in dislodging it is due to one who was closely associated with Conolly, and who, beyond all question, must have largely shared his ideas, and applied them in a different field of practice. In saying so much, I do not mean to affirm that everything Sir John Forbes wrote upon "Nature and Art in the Cure of Diseases" approves itself to my mind, but only that the analogies to which I alluded in the earlier part of this address as existing between bodily and mental disease are fully carried out in the history, even within modern times, of the most general principles of the healing art as applied to each. What I should incline

to name as the most important gain of modern physiology and pathology for the healing art is that in lieu of the old conception or theory of disease as a separate *entity*, we have admitted largely this new one—"Disease is, for the most part, *normal function acting under abnormal conditions.*" In other words, we do not admit habitually that a fever, or a sunstroke, or a stone in the bladder (to take a few random instances) is to be explained as a reversal, or abolition, or even a suspension of natural function, but only as an obstacle or impediment somewhere existing to the display of natural function after a perfectly normal manner. The normal function is *there*, still struggling, as it were, to assert itself (as long, that is, as the patient lives) even in the midst of the most extreme disorder caused by disease. And the problem of cure consists, for the most part, not in the administration of antidotes, or the discovery of specifics, but in the careful study of all the details and modes of functional activity in the patient, with the view of removing obstacles, strengthening weak points, and, in general, assisting normal function to overcome abnormal, as far as may be. We have come to aim at treating not so much the disease, as the man affected with the disease, administering our remedies not upon the principle of warring with an occult foe in some obscure corner of the organism, but on the far higher principle of dealing with the whole man, and assisting, sustaining, supporting all that is sound in him to overcome what is unsound.

No doubt, although a modern, this is also a very ancient principle or view of the scope of the healing art, having been clearly enough formulated in the famous saying attributed to Hippocrates, *νούσων φύσιες ἰητροί*, often wrongly interpreted (as I believe it was even by Sir John Forbes) when it is made to cover some quite abstract conception of "Nature" as a healer of disease. What Hippocrates really says is that "our natures are the physicians" (or healers) "of our diseases"—in other words that normal function is in every instance to be evoked, and supported, and protected, as what is usually the only way open to us for effectually overcoming abnormal function. The increased scope given to this ancient maxim is perhaps the chief distinction of modern practice in all departments of the art, as in the healing of wounds and fractures by simple protective agencies and antiseptics; the substitution of nourishment

for depletion in all forms of acute disease; the use of regulated exercise, and sometimes of electricity or galvanism, in paralytic and neuralgic disorders; the greatly increased employment of hygienic agencies both in acute and chronic diseases; and (as being closely allied with this) the whole field opened up, almost within the last quarter of a century, of preventive medicine. The use of such means now-a-days, in contrast with the endless bleeding, and purging, and starving, and vomiting, and other perturbative practices of a bygone age, are a strong testimony to a change in medical practice as applied to bodily diseases, closely parallel to that with which you are all familiar as having taken place in psychological practice.

I would by no means be understood to argue that the abuses of the older medicine of the body, even at their worst, were at all comparable to the frightful injury inflicted upon the poor helpless lunatic, delivered into the hands of his jailers in the Bedlams of the past. The evil there was that medical treatment, properly so called, was either wholly lost sight of, or entirely subordinated to the principle of what was supposed to be safe custody. The few physicians who intervened in these abominable practices had their nature, "like the dyer's hand, subdued to what it works in," and were hardly a fair specimen of the medical profession even in those days. Nor do I suppose for a moment that Pinel clearly foresaw the principle of the revolution that has taken place since his time in the theory and methods of medicine in general. Conolly probably perceived something of this, and certainly his friend Sir John Forbes must have had a tolerably clear notion that what had been done in the field of insanity had also got to be done as regards fever and pneumonia, making allowance for the difference of the starting-point in the two cases. The treatment of *delirium tremens*, first by bleeding and depletion, next by enormous doses of opium and other narcotics and stimulants, last of all by a simpler and more natural method, affords an instructive instance of an intermediate department, in which the same principles essentially apply. I have a vivid and abiding impression of the reaction produced in my own mind at an early period of my career by witnessing the disastrous results of the second of these methods in hospital practice, although at that time in full accordance with the teaching of most medical text books in this country. And

as the *delirium tremens* wards in the Royal Infirmary of Edinburgh at that time were by no means devoid of strait-waistcoats, which the old nurse was not slow to employ in cases of difficulty, the evils both of mechanical and of what is now called "chemical" restraint were vividly presented to my mind before I was well out of my studentship, and long before the independent responsibilities of medical practice, and the mature consideration of the action of remedies, had led me towards the more excellent way attributed to Dr. Ware, of Boston, and introduced to this country in the pages of Sir John Forbes's Review. But the sad experience of private practice since that time has satisfied me that it is impossible to give effect to sound and safe principles of treatment in this disease so long as the state of the law, and the want of proper institutions, obliges the management of such cases to be undertaken at home. Were it possible to send them all to Woodilee or to Gartnavel on the first appearance of the symptoms, many lives would undoubtedly be saved by the judicious employment of the ordinary measures of asylum treatment, with skilled attendants, and ample space for exercise. But every one knows that this is not possible. The risk, and the questionable legality of compulsory detention, the reluctance of friends and of the patients themselves to allow removal, and the absence (perhaps unavoidable under the circumstances) of proper accommodation in the ordinary hospitals for such cases, lead, I believe, to a considerable sacrifice of life annually in a city like this, and perhaps in all parts of the country, certainly not less, too, among the wealthier classes than among the ranks of the poor. This, however, is part of a very large subject, on which we have no time to enter at present.*

The sum of what I have endeavoured to place before you in the preceding remarks is that there is a substantial correspondence, if not identity, between the principles which have guided the modern improved treatment of insanity in our asylums and those which now preside over the treatment of bodily disease in our hospitals and in private practice. The old and grim spectre of demoniacal possession, which has

* In the author's "Clinical Medicine," published in 1862, p. 259 *et seq.*, the whole subject was set forth on the basis of particular examples, and of the experience acquired at that date, which, in the main, is confirmed by all his later experience and reading.

been responsible for so much cruelty and mischief, and even the more modern *mythus* of the *aliena mens*, familiar still in our law books, preserved also as a "survival" in the ordinary French phrase of "aliénation mentale" (which, by the way, was the title of Pinel's book), are not more opposed to the theory and practice of the asylum physicians of these days, than in the old conception of bodily disease, as a separate morbid entity, to be grappled with and forcibly expelled only by "physic," opposed to the whole scope and tendency of modern medicine. What you are familiar with in your improved asylums is precisely the principle that mainly guides the treatment of our hospitals, and of private practice in the best hands, viz., that in the whole pathology of disease normal function must be held to underlie abnormal function; and that in the cure and treatment of disease, accordingly, the sound elements still remaining must be carefully respected; strengthened and built up again, if possible; in all cases, however, anxiously tended and nursed; the sound man within the unsound, the sane man within the insane, being supported and buttressed up, as it were, so as to reduce to a minimum the injury caused by the disease. This principle I hold to be, in the largest sense of the word, a *humane* one, in that it is carefully grounded on the consideration of human nature as a whole, and not taken piecemeal. Being so, it is also humane in the narrower sense, in respect that it does not allow any amount of diseased action or function, whether of mind or of body, to deprive the sick man of any of the privileges of our common humanity which can, in the very nature of the case, be accorded to him. And all the questions of capacity and responsibility of the insane, accordingly, take their colouring from the conception that there is no absolute line of demarcation to be drawn between the insane and the sound mind—that it is not *aliena mens*, but a mind having like passions and emotions with our own, only perverted and obstructed by disease, which is also disordered function.

The Data of Alienism. By Charles Mercier, M.B. (Lond.), F.R.C.S.

I.

If I fix a square peg into an oblong hole, the fact that they do not fit is instantly perceptible; but it is manifest that the several percepts of the peg and of the hole must precede the perception of the relation of non-adjustment subsisting between them. Furthermore, if I want to determine how much the peg lacks in size, I must measure separately both the peg and the hole before I can calculate the amount of the hiatus between them. What is true of this simple case of adjustment is true of the complex case of the adjustment of the organism to its environment. However rapid and apparently immediate may be the cognition that a patient is insane—is unadjusted to his environment—yet that cognition must be preceded by a previous knowledge both of the organism itself and of the environment with which his adjustment has failed. The truth of this statement, which is involved in the definition of Insanity, may not be at once apparent, but a little consideration will render it clear. It is manifest that before pronouncing a man insane, we must first know something about him, but that we must also take into account his environment is, perhaps, not so self-evident.

If a man states that he is worth a large sum of money, and talks of his palaces and gardens, we cannot regard this as evidence of insanity until we have discovered whether or no he is in actual possession of these things; in other words until we have investigated his environment. If a man complain that he has had boiled beef for dinner every day for twenty years, we consider his statement *primâ facie* evidence of insanity; but if upon inquiry we find that, under a stupid military system, it is actually true that he has been so dieted, we learn the necessity of taking account of our patient's environment before concluding that he is insane. In a case of homicide we inquire the relation of the victim to the murderer. If he is a harmless stranger, and the aggressor could not gain by his death, we consider the act that of a madman. If the homicide is in dire want, and the victim is known to have a large sum of money about him, the act is not considered the outcome of insanity. In other words, before deciding the question of sanity we investigate the en-

vironment. In a case of delirious mania, where a patient is stripping himself naked, yelling and rushing about in an objectless manner, it may be said that no reference to the environment is required, but it is just because such exaggerated actions are unsuited to his surroundings that they are considered insane. Children about to bathe, brimming over with spontaneous energy, often exhibit very similar conduct, without any question of their sanity arising. So in every case, the separate consideration of the organism and of its environment must precede the decision of the sanity or insanity of the patient.

Furthermore, just as the determination of the amount of misfit between the peg and the hole required to be preceded by an accurate measurement both of the one and the other, so the determination of the degree of non-adjustment between the organism and its environment, and the description in detail of the particular elements of the failure, must be preceded by a skilled and detailed investigation of the organism on the one hand, and of the environment on the other. Only when we have an adequate knowledge of each term are we able to obtain an accurate concept of the relation existing between them.

Since, as so often stated, the province of the alienist is the process of adjustment of the organism as a whole to its environment, as distinguished from that of the physician, which is the adjustment between the processes going on within the organism, it follows that, in regarding the first term of this relation, the alienist is concerned with the organism in its totality, leaving the investigation of its internal correspondences to the physician. It is true that the alienist must be acquainted with the condition and the results of these internal correspondences, the bodily functions, but these results are not to him, as to the physician, final results. Having received them at the hands of the physician, or having investigated them for himself, it is his business then to use them as data, and, combining them with other data drawn from other sources, to look on them as a starting-point only, from whence he may reach the conclusions proper to his specialty. As the conclusions of the physicist become the data of the physiologist; as the conclusions of the physiologist become the data of the physician; so the conclusions of the physician become the data of the alienist.

The first term, then, of the relation which constitutes the domain of alienism, is the affected organism; but the behest

to contemplate it separately is met at the outset by this objection, that it is impossible to contemplate the organism at all except with some reference to its environment, for it cannot be conceived at all except as having some support, nor conceived as alive except as breathing air; nor is it possible to examine it for the purposes of the alienist without some reference, actual or tacit, to its adjustment to the environment, for the very object of such an examination is to ascertain the fitness of the organism to environmental conditions. For instance, the observation of the non-apposition of the thumb to the fingers has no meaning, except as expressing its fitness to grasp objects in the environment. The observation of a shrunken cerebral convolution has an interest to the physician, irrespective of all reference to the environment, as affecting the power of the patient to appreciate certain impressions or to perform certain movements; which are matters affecting the adjustment of parts of the organism to one another. But the observation of the same pathological fact is of interest to the alienist, as such, only in so far as it affects the power of the patient to entertain certain ideas, or to do certain acts, both of which relate to his adjustment to the environment. If, then, the organism can be studied, for the purposes of the alienist, only with reference to its adjustment to the environment, what, it may be asked, is the difference between the study of insanity itself and the study of its preliminaries? The difference is, that, in contemplating the process of adjustment of the organism to its environment, we contemplate these terms in their dynamical aspect, or as acting and reacting on each other; while in contemplating them separately we consider them in their statical aspect only, or as existing at rest, not indeed as existing simply, but as existing with reference to each other.

Fully stated, then, the first term of the relation with which the alienist has to deal is the Organism at Rest, or considered Statically with reference to its Environment. That is to say, the first step in the investigation of a case of insanity is to examine the structure and functions of the patient, with the view of determining what potentialities he possesses of adjusting himself to his environment. It is clearly advisable to know how far adjustment is possible before inquiring how far these possibilities are fulfilled.

Now the sum total of the characteristics of any organism at any given time are the product of three factors:—the Inherited Organization, the Individual Variation, and the

wear and tear, that is to say, the physiological and pathological changes and deteriorations that occur as life advances.

The Inherited Organization.—The importance of the influence of Heredity in cases of insanity was recognised almost as soon as the subject began to be studied, and this recognition has become increasingly prominent and formal down to the present day. Every systematic writer on insanity has insisted on it; family groups of the most remarkable character have been recorded; and statistics have been accumulated in abundance. On aggregating all the figures of all the observers whose opportunities for gathering these statistics were fairly favourable, I find the general average of cases in which an undoubted hereditary influence was traced in the direct line, to be one-third (nearly) of the total number of cases observed. In collecting these figures I have, of course, omitted all reference to the ordinary statistical tables published in asylum reports, as the circumstances under which pauper patients are admitted to asylums render even approximate completeness impossible. When it is remembered what a very small proportion of the population know anything whatever about their grandparents, to say nothing of more remote relations; how many know little or nothing about one or both parents, and how strong the feeling is which induces people to conceal the existence of insanity in their own family; it may be safely concluded that the number of discovered cases of hereditary influence are widely discrepant from the total number, even when gathered by those who have the best opportunities of observation. The actual proportion has been variously estimated at from one-fourth to six-sevenths of the total number of cases of insanity, but as accuracy in this matter is impossible, so it is for our purposes immaterial. It is sufficient to know that the proportion is a considerable one, and is probably greater than in any bodily disease except gout.

In estimating the facts of heredity, there are two very distinct influences to take into consideration, and only one of these has hitherto received attention from alienists. There is, first, the influence of the existence in a parent, or progenitor, of qualities having a direct connection with, or an indirect reference to, insanity, which qualities may be transmitted to the offspring, either immediate or remote, in an identical or an allied form; and there is, secondly, the effect on the offspring of the mingling or combination of the quali-

ties of the parents, qualities which may have no direct connection or association with insanity, and yet whose combination may be an important factor in its production.

The universal consensus of opinion as to the importance of the facts of heredity, or at any rate of those of the first order, render unnecessary any prolonged or emphatic insistance on this point, but since no subject can be profitably or intelligently investigated by a mere random accumulation of facts, it is expedient to enumerate the chief laws of heredity as they have been empirically established, in order that the inquirer, knowing clearly what he has to look for, may proceed on definite lines of investigation. I do not undertake to prove these laws. That has been done by far abler hands than mine, and with an accumulation of facts, in nature overwhelming, and in number infinitely multitudinous. But I will adduce under each heading, not in evidence, but as illustrations, a few instances of its application. These instances will, as far as possible, concern the human organism and bear reference to the purposes of the alienist, but since the immense majority of the facts of heredity have been gathered from observations on the lower animals and on plants, occasional illustrations will be drawn from the same sources. Those who accept the doctrine of evolution will need no apology for this course, and those who are opposed to that doctrine will be so fundamentally at variance with the system here advocated, that it is needless to attempt to justify to them a point of minor importance.

The Law of Inheritance. The first and most fundamental law of heredity is, that *every attribute of the parents tends to be inherited by the offspring*. Inheritance is the rule, non-inheritance the exception.* It is not said that every attribute is inherited, which would be manifestly false, but that every attribute *tends* to be inherited, and will be unless some opposing influence counteracts this tendency.

As to the general truth of this law, and especially as to

* The law is here stated nearly in the form, and I think almost altogether in the sense which was arrived at by the great biologist whose recent loss the world deplores. Mr. Herbert Spencer states it differently, as follows:—"Understood in its entirety, the law is, that each plant or animal produces others of like kind with itself, the likeness consisting not so much in the repetition of individual traits as in the assumption of the same general structure." It appears to me, however, with much deference to this great thinker, that the form in which I have stated it is more in harmony, not only with the actual facts, but with Mr. Spencer's own expansion (using this term in the mathematical sense) and illustration of the law.

the truth of the more limited form as enunciated by Mr. Spencer, it is not only generally admitted, but it has, to use his own words, "been rendered so familiar by daily illustration as almost to have lost its significance. That wheat produces wheat—that existing oxen have descended from ancestral oxen—that every unfolding organism eventually takes the form of the class, order, genus, and species from which it sprang, is a fact which by force of repetition has acquired in our minds almost the aspect of necessity." But that the same law is true of the smaller attributes down to the most trivial details of structure and function is not so generally admitted, and is even widely disbelieved. As, however, the transmissibility of insanity or of the nervous arrangements which underlie insanity, which is what we are here concerned with, is universally accepted, there is no need to adduce illustrations of this part of the subject. When it is found that so highly specialised a nervous process as that which produces a curiously peculiar movement of the hands when pleased, or that which produces a peculiar attitude during sleep, or a peculiar gait or gesture, is hereditarily transmissible; when it is found that so highly complex a nervous arrangement as that which produces a peculiar handwriting is hereditarily transmissible; it need be no matter of wonder that the comparatively gross and comparatively simple deviation of nervous arrangements which underlies insanity should be similarly transmissible.

When the tendency to the transmission of special parental attributes is interfered with, so that the reproduction of them in the offspring is incomplete, certain uniformities in their appearance can still be traced. The following propositions express the results of the partial operation of the first law of Heredity:—

An attribute which appeared in the parent at a certain period of life tends to appear in the offspring at a corresponding period of life. The successive stages in the development of every organism present abundant instances of this rule. The embryo of every organism resembles the embryo of the parent, and the successive characters assumed at successive stages appear at the same age in the new being as they appeared at in the old. Thus, the caterpillar emerges from the egg, undergoes repeated moults, changes into a chrysalis and then into a moth; and each of these changes occurs at an age corresponding with that at which it appeared in the parents. In this case the attributes have occurred in a long

line of ancestors, but the same rule holds with attributes which appear *de novo* in the parents. "In the family of Le Compte blindness was inherited through three generations, and no less than twenty-seven children and grandchildren were all affected about the same age." This rule is especially true of insanity, and many cases have been recorded; thus Piorry tells of a family, every member of which became insane at the age of 40. Esquirol relates a case in which the grandfather, father, and son all committed suicide when in or near their fiftieth year.

When the same attribute appears in several generations, but is not congenital, it may appear at an earlier age in each successive generation. Gout has an evil notoriety for this peculiarity. Dr. Roberts says that gout is rarely met with under 30 years of age, *except in hereditary cases.** This peculiarity is known to occur in cancer also. In one family the grandmother became blind at thirty-five, her daughter at nineteen, and three grandchildren at thirteen and eleven; and cases have been recorded showing a similar advance in the inheritance of insanity.

Attributes pertaining to one parent (especially those that appear late in the life of the parent, when the reproductive functions are active) tend to be reproduced in that sex alone. Thus the hæmorrhagic diathesis is often transmitted to males alone. This peculiarity is so marked that in some families scarcely a single male arrives at maturity. In the Lambert family, known as the "porcupine men," the skin disease was transmitted for four generations, and was strictly limited to the male sex, seven sisters in one of these generations being free. Colour blindness is much commoner in males than in females, but in one instance in which it first appeared in a female it was transmitted through five generations to thirteen individuals, every one of whom was a female.

Attributes pertaining to one parent are sometimes transmitted to the offspring of the opposite sex only. A remarkable instance is given further on under the head of Reversion, as occurring in cases of hæmorrhagic diathesis.

The attributes peculiar to one parent may be most apparent at one period of the life of the offspring, and those of the other at another. Girou states that calves, the offspring of a red and a black parent, are, not rarely, born red, and subsequently

* The italics are mine.

become black. Mr. Darwin crossed several white hens with a black cock, and many of the chickens were, during the first year, perfectly white, but acquired during the second year black feathers; on the other hand, some of the chicken which at first were black became during the second year piebald with white. That this principle is true of facial characters in the human race is corroborated by common experience, and the universal practice of mankind tacitly admits that facial characters accompany and indicate other, and especially mental qualities. This principle may afford an explanation of some apparently causeless outbreaks of insanity.

From the possession by the offspring of one attribute peculiar to one parent, we may infer the possession of other attributes peculiar to the same parent. Thus I crossed an albino mouse with a common brown mouse. Of a litter of six, two were albinos, and inherited the tameness and gentleness of the mother, while the other four were brown and of untamably wild disposition, and would bite savagely when handled. Moreau indeed asserts, but as it seems to me on insufficient evidence, that in the case of inherited insanity, the facial characters tend to be derived from the parent from whom the insanity was *not* derived. Sedgwick says that "There is a definite connection between the development of the external ear and different forms of insanity, and both the forms of the ear and the insanity may be hereditary. It is remarkable that in former times our ancestors used to cut off the ears of criminals, not at first as a punishment, but *lest they should produce their like.*"

An individual ancestor may import into a race mental characteristics which persist for many generations after all trace of the physical characters introduced by the same ancestor have disappeared. Lord Orford crossed his greyhounds, which were lacking in courage, with a bulldog, and after the sixth or seventh generation, "there was not a vestige left of the form of the bulldog, but his courage and indomitable perseverance remained." It is unnecessary to point out the importance of this proposition from the point of view of the alienist.

Latency and Reversion. Among the most remarkable of the many remarkable occurrences of heredity are the complementary phenomena which are known as Latency and Reversion. When a peculiar attribute exists in an individual, is absent in his offspring, but reappears in the third or some

subsequent generation, it is said to be *latent* in those generations in which it does not appear, and the individual in whom it at length appears is said to *revert*, in so far as that attribute is concerned, to the ancestor in whom it was present. Thus, a grandfather has six digits on each hand, his children are normally constituted, but his grandchildren have, like himself, supernumerary digits. In such a case the grandchildren are said to revert to the grandfather, and the attribute of possessing supernumerary digits is said to be latent in the intermediate generation. Instances of latency and reversion are very common in every class of organisms. Mr. Darwin gives the following highly characteristic examples :— "A pointer bitch produced seven puppies ; four were marked with blue and white, which is so unusual a colour with pointers that she was thought to have played false with one of the greyhounds, and the whole litter was condemned ; but the gamekeeper was permitted to preserve one as a curiosity. Two years afterwards a friend of the owner saw the young dog, and declared he was the image of his old pointer bitch Sappho, the only blue-and-white pointer of pure descent he had ever seen. This led to close inquiry, and it was proved that he was the great-great-grandson of Sappho." In another instance a calf reproduced accurately the very peculiar markings and colouring of its gr-gr-gr-gr-grandmother, all the intervening generations having been black.

In the human race the influence of reversion is not so easily proved, but it is certainly active. It is seen in the inheritance from the maternal grandfather of diseases peculiar to the male sex. For instance, it is common in the transmission of the hæmorrhagic diathesis for the children of the affected individual to escape altogether ; all the children of the sons and the female children of the daughters also escape; but the sons of the daughters are commonly affected. A very striking instance of the reversion of both physical and mental characteristics, and one evidently reproduced from experience, is described by Hawthorne in "The House with the Seven Gables."

Under certain circumstances, and especially under the influence of crossing, an animal may revert to an indefinitely remote ancestor, as the domestic pig to the characters of the wild boar, the highly modified and specialised breeds of domestic fowl to the remote ancestral *gallus bankiva*, &c.

A particular case of reversion requires special mention. It is the assumption, under certain conditions, of the secondary

characters of one sex by individuals of the other. "It is well known that a large number of female birds . . . when old or diseased, or when operated on, assume many or all of the secondary male characters of their species." A duck ten years old has been known to assume the perfect winter and summer plumage of the drake. A hen which had ceased laying has assumed the plumage, voice, spurs, and warlike disposition of the cock; and the same thing occurs, *mutatis mutandis*, with the other sex. It is important to notice that not only structural peculiarities, but habits, such as that of incubation, and mental characters, as that of courage, are among the qualities which may be both gained and lost in this manner. And moreover this peculiar form of reversion is sometimes accompanied by the simultaneous production of long-lost characters proper to some ancestral form. The occasional assumption of the secondary male characters, as, for instance, the beard and the masculine character of the voice, by women who have reached the climacteric, is well known, and the especial frequency with which this occurs among the insane is worthy of remark. I have at present under care, certificated as lunatics, two men who have the secondary sexual characters of the opposite sex.

The causes of reversion are obscure. Mr. Darwin, who gave great attention to this subject, believed that crossing, that is to say the union of two racially or specifically unlike forms, produced a strong tendency in the offspring to revert to some long-antecedent form, as, for instance, when a white pigeon and a black pigeon produced a slaty-blue offspring, one, that is to say, having the colours of the original ancestor of all pigeons, the blue rock, from which it was nevertheless separated by hundreds or perhaps thousands of generations. Another cause of reversion, although one whose influence Mr. Darwin believed to be greatly exaggerated, is the return of a domesticated animal or plant to a wild state. This would be, in other words, the influence of a very wide alteration in the conditions of life.

Prepotence. Such attributes as are alike in the parents will tend to be accurately reproduced in the offspring, but, since no two individuals are precisely alike, there will be in every case a certain residuum of attributes which are unlike, and there will be among these a struggle for possession of or precedence in the offspring; and the power which either parent has of obtaining preponderance of its qualities in the offspring is called the *prepotence* of the parent. The term is

also applied to the qualities which obtain predominance. Like the other modifications of the first law of Heredity, this of prepotence appears to be most capricious in its application. Some qualities, such as certain colours, are strongly prepotent in some animals, and not at all in others. Or a character may be prepotently transmitted by one sex, but not by the other. Not one of the observed rules of prepotency applies to all animals. Whatever the laws of its application, however, prepotence certainly exists in the human race. "The Bourbon nose" appeared so constantly in the family as to pass almost into a proverb; and since this obtained in the French stock which intermarried with women of widely different families, it must have been strongly prepotent. The characteristic Napoleonic features have been prepotently transmitted from some common ancestor of Napoleon Bonaparte and his brothers to at least the fourth generation. It is obvious that if insanity becomes prepotent in a family, as it evidently was in the cases referred to above, the consequences will be especially disastrous, and the discovery of its prepotence will justify the adoption of the most stringent measures against the marriage of the members of such a family.

The Knee-jerk in General Paralysis. By Wm. Julius Mickle, M.D.

A study of the so-called reflexes, both superficial and deep, is of considerable interest in general paralysis of the insane. Of these the knee-phenomenon, knee-jerk (Gowers), or patellar tendon-reflex, is one so easily examined, so well known, and of such valuable import, that what follows will mainly be devoted to the consideration of this physiological phenomenon.

The knee-jerk may be normal, or may be increased, diminished, or absent, in general paralysis.

By examining all cases carefully in the same way with regard to the attitude of the body, the position and arrangement of the legs, the manner in which the one percussed is swung as a lever, the nature and amount of its freedom of movement, the force, manner, and place of impingement of the stroke, the avoidance of voluntary muscular contraction and stiffening and of other sources of fallacy, I have ascertained what I view to be the more usual range of health,

and thus have formed a standard of comparison—a range or space for excursion—any knee-jerk and resulting movement exceeding which has been considered as exaggerated, and any movement less than which has been deemed as diminished. These measurements are of value only in a case examined in precisely the same way; and in no other. Their value is relative and conditional, and not absolute.

But no rigid limitation of the normal range of movement in the knee-jerk is intended here. There are exceptions to any standard one may adopt, and, indeed, at least one observer, whose name I forget, has found the knee-jerk absent in several persons in perfect health.

As to the knee-jerk in general paralysis, the simplest subdivision would be into—firstly, those cases within the normal range; secondly, those with absent or very much lessened knee-jerk; and thirdly, those with well-marked or exaggerated knee-jerk.

In my own cases those within the assumed normal range, and those with absent or almost absent knee-jerk, each outnumber those with very decidedly exaggerated knee-jerk. This is not quite the same as the experience of Dr. J. C. Shaw, of the United States, who gives a valuable summary of the cases observed by him in the "Archives of Medicine," and who found exaggeration of the so-called tendon-reflex very slightly more frequent in general paralysis than diminution or absence of the same. The patients observed by myself with reference to this point were all males; and it may be said that in some examples a little difficulty was experienced in deciding as to whether the jerk was slightly exaggerated, or whether it might fairly be included as within the normal range. Obviously upon this decision would depend some modification of the statistics. The statistics relative to this subject will vary in the experience of different observers, especially if sufficiently large numbers of cases are not examined. It chanced that the first group of cases of general paralysis I examined with reference to this point yielded only one or two examples of absent knee-jerk; in my later experience the relative proportion was quite different.

Then, again, the knee-jerk may vary widely in the same patient at different portions of the course of general paralysis. For example, in cases where the knee-jerk has been absent one may find a slight return of the phenomenon months afterwards. And I have watched a knee-jerk pass,

in the course of time, from a condition of complete annulment, through one of slight and then of moderate evincement, to one of exaggeration, although not altogether *pari passu* in the two limbs. In general paralysis I have also seen the knee-jerk, examined at intervals of several months, appear on one occasion exaggerated; later, abnormally slight; and, later still, within the normal range; again to rise to exaggeration; and afterwards to sink to within the normal limit. Where the fluctuations are less considerable than in this last case it may yet be noticed in some examples that a knee-jerk highly marked at one time is less so on a future occasion.

The jerk is by no means always alike, or nearly alike, in the two limbs.

The jerk varies much in its quickness in different cases; also in the promptitude with which it follows the stroke. Strange to say, I have seen a knee-jerk in general paralysis exaggerated in its extent or range, but tardy or delayed in its appearance.

The activity of the reflex movements in response to the various superficial impressions, such as tickling and pinches of the integument of the limbs, by no means necessarily varies directly as the activity of the knee-jerk or of other so-called deep reflexes. A remark at page 31 of my work on general paralysis referred only to the reaction to cutaneous impressions, such as those just mentioned, and in no way to the knee-jerk, as appears to have been imagined by some, who, discussing my statement as to lessening of reflex activity in advanced general paralysis, forgot that so-called tendon-reflex is probably not of reflex character at all, and that if it is it is also the latest, and least known of the reflex class of movements; and who even proceeded to write as if knee-jerk, or one of its congeners, was the only reflex.

Examining the cases in each group collectively, and point by point comparing the cases having more or less exaggerated knee-jerk with those having absent or very slight knee-jerk, and with those wherein it is normal—each group being taken in this collective manner—certain differences between them are found. These differences may in the next place be very briefly referred to under several headings, and it will only be necessary to compare the group consisting of cases in which patellar tendon-reflex was absent or very slight with the group consisting of those in which it was highly marked or exaggerated.

The following conclusions are based solely upon a series of cases under my care:—

1. *Ætiology of the General Paralysis.*—With the group in which there was no knee-jerk, drink—that is to say alcoholic excess—was a comparatively prominent cause of general paralysis. On the other hand, a syphilitic history occurred in a relatively greater proportion of those with exaggerated knee-jerk.

2. *Dysphasia.*—As to dysphasia, in the cases taken collectively the affection of speech was much the same in the two groups, but on the whole perhaps slightly less in that with no knee-jerk.

3. *Apoplectiform Attacks.*—In frequency and severity the apoplectiform attacks also affected both groups very similarly; the group without knee-jerk rather less than that with the same well marked.

4. *Temporary Hemipareses.*—Hemipareses—occurring independently of convulsions—followed the same rule as the last two headings.

5. *Epileptiform Attacks.*—Epileptiform seizures were rather more frequent in the group with no knee-jerk. On the other hand, quasi-syncopal seizures—analogous to the *petit mal* of true epilepsy?—occurred almost exclusively in the group with exaggerated knee-jerk.

6. *Intellectual Condition.*—The intellectual conditions were, on the whole, very much alike in the two groups. (Still, may one mention that mania and dementia were slightly more marked—and perhaps fortuitously so—in the group with exaggeration of the knee-jerk.)

7. *Hallucinations.*—Hallucinations were more frequent in the group with absent knee-jerk.

8. *Urinary Incontinence.*—Wet and dirty habits; involuntary passages, especially of urine, were more frequent, early, or marked in cases—taken collectively—where the knee-jerk was absent.

9. *Pain.*—Pains affecting the limbs and trunk with some severity were more frequent where knee-jerk was absent.

10. *Tactile Sensibility of Feet.*—As to appreciation of touches on the feet, there was no very marked difference between the two classes.

11. *Sensibility and Reaction to Pinches of Extremities.*—Feeling of, and reaction to, pinches were more often lessened or absent in cases of no knee-jerk, as compared with cases of exaggerated knee-jerk.

12. *Reaction to Tickling.*—Reaction to tickling was absent, or slight, rather more often in the group with no knee-jerk.

13. *Gait.*—The gait was rather more ataxiform in the cases with no knee-jerk, estimated collectively.

14. *Pupils.*—Taking the cases collectively, the pupils were larger with absent knee-jerk than where the jerk was exaggerated. (Of the two pupils the right was the larger more often with well-marked knee-jerk than with absent.)

15. *Eyes to Light.*—The marked differences were observed in the reaction of the irides to light. With absence of knee-jerk they were slightly more sluggish.

16. *Eyes in Accommodation.*—No marked differences appeared between the iridal movements in accommodation in the two groups.

The principal differences therefore were:—

More of early, or severe, or persistent, pains; *more* of wet habits; *more* of hallucinations; and slightly more of ataxiform gait and epileptiform seizures in the group with no knee-jerk; and, in the same group, *less* sensibility and reaction to pinches and tickling of the feet.

And—*more* of quasi-syncopal seizures, and very slightly more of hemiparetic and apoplectiform attacks, in exaggerated knee-jerk.

The Philosophy of Restraint in the Management and Treatment of the Insane. By Robert W. D. Cameron, M.D., Medical Superintendent, Midlothian District Asylum, Rosewell, Edinburgh.

Only since advancing science has demonstrated the true connection between mind and body, and dispelled the illusory fancies of metaphysicians, has a rational philosophy sprung up regarding the nature of mental processes. The study of psychology having at length been placed on a proper basis and freed from the spiritualistic haze with which it has so long been shrouded, there is now great reason to hope that much may be accomplished in elucidating the various phenomena of mental disease. No study of insanity that is not founded on a physical basis can be of any real value in throwing light on the many phases of mental disorder, or in assisting to a knowledge of the proper method of treatment

and management of the insane. Experience is beginning to teach that it is mere futility to regard mind, as the metaphysicians do, as a fixed entity, and endeavour by a process of analysis to arrive at a true conception of it. This can only be attained by commencing with the study of mind in its simplest manifestations, and tracing its various evolutions until it is presented to us in its most complex form. Although we have no actual knowledge of the human mind in its most primitive condition, it may be supposed, in accordance with the evolution theory, that man first emerged from the level of the lower animal life at the time when he ceased to live in a state of isolation, and to depend for subsistence entirely on individual exertion, his mental capacity having become so highly evolved as to induce him to form associations for the accomplishment of purposes which should redound to the advantage of himself and others. Association is essential to civilization and progress, and has its origin in a more or less complete self-surrender of the individual to what is advantageous to the common weal; for there can be no combination of men for the accomplishment of any purpose without its necessarily involving a curtailment of individual liberty and the imposition of restraint. "Inasmuch as a large part of the nature with which man has to come into some sort of harmony is not what we call physical nature, but human nature, it is plain that a main business of his life will be to adjust his relations to his kind. *That* he cannot help doing in the rudest form of primitive society; the control of his own passion from fear of the recalcitrant kick of his neighbour's passion is a solid foundation of a primitive sort of social feeling; but in a higher development of the social organism his relations as a social element become much more complex and special. Sympathy with his kind and well-doing for its welfare, direct or indirect, are the essential conditions of the existence and development of the more complex social organism."* Abstract ideas such as right and wrong, mercy, justice, &c., are all the outcome of man's social intercourse with his fellows, and vary in their significance according to the complexity of the relations which exist between the different units of the social organism. They do not always have the same quantitative and qualitative value, and are devoid of meaning except when considered in connection with some social system. The same holds good with regard

* Maudsley's "Pathology of Mind," p. 99.

to insanity, no true conception of its nature being possible except when it is viewed from a social standpoint. When a man is born he becomes a unit of a social system in a higher or lower state of civilization, and is endowed with certain natural aptitudes to conform more or less completely to the essential conditions of that system. The degree to which he can discharge his functions as a social unit will depend entirely on his original mental capacity, or upon that as influenced by education, or modified by disease or injury. To my mind it would be a philosophical view of sanity to regard it as a relative condition, taking as its measure the degree to which the individual, by virtue of inherent qualities of mind, is fitted to conform to the essential conditions of the social system of which he forms an integral part. Most certain it is that no real separation can be made between sanity and insanity; the one merges into the other, and no line can be chalked out where all on the one side are sane and all on the other insane. Any attempt to do so must end in failure, and this should be borne in mind by those who from time to time formulate definitions of insanity purporting to attain to such a consummation. For practical purposes, I admit that a line, arbitrary though it be, must be drawn somewhere, and as the question has important bearings on subsequent remarks, I shall proceed to indicate my views as to where sanity may be considered to end and insanity begin. If the individual can conform generally to the essential requirements of the social organization of which he is a unit, he may, broadly speaking, and for all practical purposes, be regarded as sane. If he cannot so conform without the aid of exceptional restraint or the operations of the penal code, then I consider he may truly be regarded as insane.

This view of insanity, I am aware, is widely different from what is recognised as insanity by the English law. The law makes a marked distinction between crime and madness, which, I believe, is founded on a misconception of what madness really is. The more I have studied the subject, the more is the conviction forced upon me that criminality cannot exist apart from insanity, and that crime is merely one of the outward manifestations of an insane diathesis. It does not, however, necessarily follow that because a man who commits a criminal act is insane, he is therefore irresponsible, and ought not to be punished. The question in criminal cases, when a plea of insanity is urged

in extenuation or exculpation of the offence, ought to be not the determination of the existence of insanity in the criminal, but its degree, and punishment should be meted out in proportion as it is considered such punishment is calculated to induce a healthier frame of mind in the individual, and prevent the recurrence of such offence. It may be well in this connection to explain that punishment, whatever be the form it takes, or in whatever cases it be applied, should always be a mode of treatment, and not an act of vengeance. While doing duty as an example to others, it should never be lost sight of that its main object ought to be to act as a restraining influence, or a counterforce, to guide the individual into healthy modes of thought and action, and to fit him as far as possible to take his proper place in the social organism. It is not an unreasonable question to ask whether the sanction of capital punishment by law is not a relic of a barbarous age, and an outrage on our more enlightened knowledge of the laws that regulate human thought and action. That there is an intimate relation between crime and insanity no one who has studied the subject will dispute. As in insanity, so in criminality, there is every possible degree.

Of three principal classes * of criminals recognised by Maudsley, two comprise those cases in which the primary cause of mental degradation lies in a radical defect of constitution. With reference to the other class, inasmuch as comparatively few of all who are subjected to the same unfavourable influences become criminals, and as probably an equal number become insane, it may be surmised that the starting point here also is to be found in defective original capacity. Between criminals of the third class and many of our asylum lunatics there is no possible distinction, and criminals of the first two classes appear to me to be merely madmen afflicted with the milder

* "(*a*) The first class, consisting of those who, not being really criminally disposed, have fallen in consequence of the extraordinary pressure of exceptionally adverse circumstances;

"(*b*) The second class, of those who, having some degree of criminal disposition, might still have been saved from crime had they had the advantages of a fair education and of propitious conditions of life, instead of the disadvantages of an evil education and of criminal surroundings;

"(*c*) The third class, of born criminals, whose instincts urge them blindly into criminal activity, whatever their circumstances of life, and whom neither kindness, nor instruction, nor punishment, will reform, they returning naturally to crime when their sentences are expired like the dog to its vomit or the sow to its wallowing in the mire." ("Pathology of Mind," p. 104.)

and more curable forms of insanity. It follows, therefore, that so-called criminals, no less than lunatics, should be objects rather for compassion than contempt, and that there should be a greater similarity than there is at present in the modes of dealing with criminals and lunatics respectively. "There are, on the one hand," says Maudsley, "many criminals who exhibit such evident signs of defect or unsoundness of mind that it is impossible to say confidently whether they ought to be sent to an asylum or to a prison; and, on the other hand, there are insane persons who evince such criminal and vicious tendencies that one cannot help feeling that the discipline of a prison would be the best place for them.*"

It has been shown beyond doubt that criminal parents are prone to beget an insane progeny, and *vice versâ*. In studying the family history of some of the patients in the Midlothian Asylum, I have been struck with the frequency with which one or more members of the family belonged to the criminal class, and also with the number of cases in which the lunatic, before being consigned to the asylum as insane, had been fined or imprisoned for various offences against the law. I may here cite one out of many cases as illustrative of what I have said regarding the intimate connection between criminals and lunatics, and the consequent necessity for an approximation in the modes of dealing with the two classes.

A. B., a patient in the Midlothian Asylum suffering from delusional mania, has a brother J. B., who is greatly addicted to drink, and has again and again committed thefts and other criminal offences. I had frequent opportunities of seeing and conversing with J. B., and from his appearance, conversation, and general conduct, I was inwardly satisfied that he was insane, although I might have difficulty in granting a medical certificate that would satisfy the law that he was of unsound mind and a proper person to be detained under care and treatment in an asylum. Yet this brother, J. B., lived literally half his life in jail, being liberated from time to time only to be again apprehended and sent back. He was confined probably in an ill-lighted, ill-ventilated cell, cold and damp perhaps, was supplied with poor food, and subjected to the rigorous discipline of the place, with all its gloomy and forbidding surroundings.

* "Pathology of Mind," p. 100.

Contrast this with the condition of his, I venture to say, more fortunate brother who lived in the enjoyment of the comparative freedom and amenity of asylum life, with surroundings of the most pleasant description as compared with those of the other.

A man's actions, as seen in his general conduct, rather than his words or beliefs, constitute the true guide to an estimate of his mental character. This is the one test which the dissembler and the hypocrite are unable to baffle. It is not of much consequence what are a man's beliefs or disbeliefs provided he conducts himself in a rational manner, and it is too much the fashion nowadays for medical men and lawyers, when inquiring into the mental condition of criminals, entirely to overlook eccentricities of conduct in their eager hunt after delusions. Not infrequently has it happened in the history of the insane that the committal of some criminal act has been the first means of drawing attention to the mental state of the culprit, he having never previously been suspected of unsoundness of mind. And it is a well-known fact that it is in the early stages of all forms of insanity that crimes are most apt to be perpetrated. It may not be out of place in this connection to ask how many human beings have been executed for murder who, had they been allowed to live, would ultimately in natural course become inmates of lunatic asylums.

It is sad to find so many lunatics in our asylums who, in the earlier stages of their insanity, were confined as criminals in jail, only becoming lunatics, and thereby entitled to the amenities of an asylum, when their disease had become so marked that two medical men could certify off-hand to their insanity after a cursory examination.

It is an axiom in the treatment of lunatics that it is in the earlier stages of their disease that they are most curable. It is recommended as of great importance that they should be removed as soon as possible from all irritating influences, and from familiar scenes and associations, which have a strong tendency in recent cases to produce a confirmed state of insanity, and that, to counteract morbid tendencies and induce healthy action, their surroundings should be made as agreeable as possible. It may well be doubted whether a jail is a proper place in which to carry out such treatment. While the severe restraint of a jail is for certain cases absolutely essential, it is plain that it is by no means suited to all classes of criminals; neither is it rational to suppose that asylums

should be institutions where restraint should be non-existent. Between jails and asylums there is a wide gulf which corresponds to nothing in nature, and, as long as this exists, it is patent that there must necessarily be a class of mentally defective beings for whose care and cure there is no adequate provision made.

I have endeavoured in the foregoing remarks to show that insanity must be considered not as any definite thing, but as a thing embracing a limitless range both in its degree and in its kind; that it ought, philosophically, to be studied from a social standpoint, sanity being regarded as a harmony with the laws of social well-being, and insanity as a discord, or want of harmony with those laws. In this way I have shown the intimate correlation between criminality and insanity, and indicated in what respect I consider the treatment adopted to be defective and inconsistent. I have likewise endeavoured to make clear that every social organization, by virtue of its origin and existence, implies the restraint of each component unit. Restraint, then, being essential in the case of all members of society, is the more indispensable in the case of anti-social beings if efforts are to be made at all to save society from decay. Restraint should differ as well in degree as in kind. While prison and asylum treatment meet the requirements respectively of the mass of criminals and lunatics, there is nevertheless an intermediate class of cases that are too mad to be benefited by the rigours of the jail, and yet not mad enough for the comparative freedom from restraint enjoyed by patients in an asylum. What I wish to bring out in this connection is that there ought to be not *class* restraint, but *individual* restraint, that systems of restraint should be graduated so as to meet the requirements of every individual case, and that in each case requiring restraint it should be decided on its merits as to the amount and kind of restraint required. As long as insanity continues to exist as it is at present, so long will restraint of some kind be required, for it is plain that society has a right to subject the anti-social being to such restraining influences as are calculated to make him conform to its laws, and prevent him from doing that which is detrimental to its welfare.

It now remains to be considered what form such restraint should take, and to what extent it ought to be carried. To any one who has studied the subject, or is susceptible of ordinary feelings of humanity, no arguments are needed to

show that it should be reduced to the lowest limit compatible with the welfare of the patient and the safety of the public. In this sense, and in this sense only, am I an advocate of the so-called non-restraint system. I have said that when a man becomes so far insane as to be unfit to discharge his social obligations he must of necessity be subjected to restraint. The manner of his disposal will naturally turn on his opulence or poverty, and on the nature of his insanity. If he is rich, he may be efficiently treated at home, or he may travel with competent attendants, or he may be sent for treatment to an asylum. If, on the other hand, he is poor, removal to an asylum is in almost all cases the only feasible or satisfactory expedient.

It may be considered then that asylums are indispensable in the treatment of insanity.

I shall now proceed to treat of the various forms of restraint practised in lunatic asylums, founding my views on the results of my experience of the management and treatment of the insane in the Midlothian District Asylum and elsewhere.

For convenience I have divided the subject into the following heads :—

I. Mechanical Restraint, or restraint by mechanical appliances, such as camisoles, wristlets, waist-belts, box-beds, &c.

II. Chemical Restraint, or the employment of stupifying drugs.

III. Muscular Restraint, or the employment of superior physical force at the hands of attendants.

IV. Seclusion, which means, according to the definition of the Scotch Lunacy Commissioners, putting a patient into a single room at any time between ten a.m. and six p.m., alone, and with locked doors.

V. Cold Baths, Shower Baths, Cold Affusion, the Douche, &c.

VI. Punishment.

Mechanical Restraint.

In British asylums, the routine practice of restraint by mechanical appliances, such as I have enumerated above, is a reminiscence of an era in the treatment of lunatics which is now happily past, and which, let us hope, will never return. I need not here dwell on the horrors practised at a time when brute force was the only treatment which ignorance and superstition could devise. Suffice it to

say that, within the last thirty or forty years, an increased knowledge of mental disorder has effected a complete revolution, and brought with it a method of treatment at once more rational and humane. So great, indeed, has been the revulsion of feeling in this country against restraint, that there have not been wanting men who would have it that a system of treatment could be devised whereby restraint might be entirely abolished. I have already alluded to the doctrine of non-restraint, and expressed my opinion as to its inapplicability except in the sense of abolishing all mischievous and unnecessary restraint. As proof that the indiscriminate employment of mechanical appliances for purposes of restraint is both mischievous and unnecessary, I need only contrast the condition of lunatics at the present day with what it was in former times. But it is only in this country that mechanical restraint has fallen into disuse as a general mode of treatment. The few instances of its employment are almost exclusively confined to surgical cases in order to preserve the patient from self-injury. In my own practice I have not had occasion in any single instance to resort to this form of restraint, except under the circumstances just alluded to, when mechanical restraint is universally admitted to be frequently required. I am convinced that this form of restraint, if not the very worst, is at any rate one of the most barbarous that can be practised. If we as sane individuals can imagine ourselves bound down in one position, say to a chair, or lying in a box-bed with the lid securely fastened over us, we experience the most painful feelings of restricted liberty which soon issue in frantic struggles for freedom, the futility of which merely serves to intensify the mental agony. I say, if we can experience this in the abstract, we are in a position to judge of the misery which an actual experience of it is to the madman, with his greater nervous irritability and diminished self-control. Is it then surprising that, to a sympathetic people like those of Great Britain, the employment of mechanical restraint, except as a last resource, should be extremely repugnant?

In most of the American asylums mechanical restraint is employed to a far greater extent than in this country, and its principle is even upheld as being the best mode of dealing with a large number of cases. Dr. John Gray, of the Utica Asylum, U.S., in his annual report for the year 1881, has strenuously defended the principle of mechanical restraint, and has laid down the following rules for its practice:—

"1st. Cases of suicidal disposition where it is so deter-

mined and persistent that watchfulness will not secure the necessary safety.

"2nd. Where there is determined and persistent disposition to self-maiming or injury, or denuding the person, or debasing self-abuse.

"3rd. Where there is great destructiveness, or violence towards others."

The general conclusion of his paper is that there is no real difference in principle among experienced professional men who have devoted their lives to this specialty; that the English Commissioners of Lunacy and the superintendents recognise the necessity of some mode of protective restraint, but having no settled convictions in favour of any particular method, they use coercive measures in the form of seclusion, the use of padded rooms, wet and dry packing, showering, and manual force of attendants.

Without disputing Dr. Gray's conclusions as to the means adopted in British asylums for the purpose of avoiding mechanical restraint, I think that, regarding this mode of restraint as an abhorrent expedient to be employed only as a last resource, I need make no apology for advocating the adoption of some other means by which mechanical restraint can be avoided. Moreover, the conviction is forced upon me, by comparing results of treatment in asylums conducted on the principles of restraint and of non-restraint, that the less mechanical restraint is had recourse to, the less necessity will there be for restraint of any kind.

(*To be continued.*)

Sketch of the French Legislation Relative to the Insane. By Dr. Achille Foville, Paris, Inspector-General of Charitable and Insane Establishments.

(*Concluded from p.* 167.)

The conditions established to regulate the admission of patients into lunatic asylums have given rise, in every country, to a great deal of discussion. On the one hand, many unacquainted with medicine are inclined to dread the abuse of the power to confine individuals not really insane under the pretext of insanity, and with more or less criminal intent; therefore these persons contend that admissions to asylums should be preceded by intricate formalities and repeated inquiries, with the interference of some public authority, such as a commission of either judicial or adminis-

trative officers. On the other hand, physicians advocate the necessity of prompt recourse to an asylum, not only for the patient's own benefit, but for his family's welfare; they demonstrate that a man labouring under acute insanity cannot be left to himself during the time required to set in motion the working of such complicated machinery as that proposed to be brought into action prior to his admission into a hospital; they further reject all interference of the public authorities to this end, as hurtful to private family feeling and the maintenance of professional secrecy, demanding, likewise, the greatest facilities for easy admission, guaranteed, nevertheless, by any number of subsequent examinations, or other means of inquiry into the case; and, finally, they hold that such supposed illegal confinements do not exist, since it has not been proved that any one really of sound mind has ever been shut up in any asylum, and that, therefore, the liberty of the subject is in no danger whatever. So in this respect we may rest confident, seeing that the past gives us full assurance for the future. Such is, upon the whole, the main point of dispute in every discussion on the subject, which happens to spring up again and again in different countries.

All the arguments *pro et contra* have been discussed to satiety from 1836 to 1838, and, with their full knowledge, the legislators, at that time, decided upon the system the most in accordance with the request of the physicians, to render as easy as possible the necessary formalities for the voluntary placing of lunatics in asylums, by which is meant the steps freely undertaken by the relations of the patient without any intervention of the public authorities. These formalities are reduced to three, viz., a demand for the reception of the patient made by any of the relatives, connections, or even a friend of the patient; a proof of identity of the person who makes the order and also of the patient who is to be placed in the hospital; and, finally—and this is the most essential document—a medical certificate. This certificate may be single, that is to say, signed only by one physician, who must be, however, not connected with the institution, nor with the person who makes the demand or order. The mental condition, with the peculiarities of the disease, and necessity for treating and confining the person in question in an institution for the insane, must be stated in the certificate, the date of which cannot go beyond fifteen days prior to its execution.

The law, therefore, does not require the intervention of

any agent of public authority for the above steps. However, an indirect intervention is often met with in practice, many of the asylums exacting that the signature of the physician should be legalized by the *Maire of the Commune.*

This system differs, theoretically, from that adopted in England only in that it requires one instead of two medical certificates, the demand for admission being equivalent to the English order. Besides, the manner of drawing up the certificate is not indicated by the French law so carefully as by the English, a fact to be regretted, and again, the adoption of printed schedules for the certificates instead of being general is, on the contrary, very exceptional in France. On this account it often happens in practice that the medical certificates in support of a demand for admission are short and incomplete, the superintendent of the asylum finding himself placed, under such circumstances, in an embarrassment to decide whether he should or should not receive the patient. It would be, therefore, very useful to take new precautions in order that the directions for filling in medical certificates be always sufficiently detailed, and that they should state, in an explicit manner, the necessity for the confinement.

At any rate, this is only a mere question of detail: the important one should be to ascertain if the provisions of the law of 1838, in regard to voluntary commitments, shall be maintained, or if the forthcoming legislation shall introduce new requirements therefor. The usual discussions on the subject will be repeated indefinitely, but it is difficult to foresee who will triumph, the partisans of the *status quo*, or their opponents who are determined to secure the intervention of some representative of public authority in sending a lunatic to an asylum.

The two systems, moreover, judging from their respective results in the foreign countries where they are in operation, work, strange to say, equally satisfactorily. Thus, to mention only two instances of it: Do not the majority of English alienists prefer that the commitment should be effected only through the intervention of the family or friends of the patients, while the Scotch specialists, on the contrary, uphold the system which leaves it altogether dependent on the sheriff's order? Can we not draw from this the conclusion that, after all, the social results of such a malady as insanity lead inevitably to results which are almost always identical, in spite of the standing provisions

in the different countries, to accomplish the transition from the freedom which it is impossible to allow to a lunatic to the confinement in which it becomes indispensable to keep him?

The means of control established to justify the detention of the patient after his admission into the asylum are numerous and efficient.

Twenty-four hours after his admission, this is notified to the Prefect, together with a copy of the medical certificate accompanying the demand. The physician to the asylum draws up, within the same time, a certificate on the state of the patient admitted. When the patient is sent to a private asylum, the Prefect directs one or more physicians to go, within three days, to visit the confined person, in order to ascertain his mental condition, and immediately report thereon. The Prefect may appoint any other person he may deem proper conjointly with the physician.

The Prefect reports the commitment, within the same period of three days, to the *Procureur de la République* in the locality of the residence of the patient, and in that where the asylum is located.

Fifteen days after the admission of the patient, the physician to the asylum issues another certificate, in which he confirms or rectifies—if there is occasion therefor—the remarks contained in his first one.

Every document concerning the commitment, every certificate from outside or from hospital sources, is copied in a large official register, under the name of each patient. In this register the physician to the asylum records, in monthly notes, the progress of the disease, as also the discharge or death of the patient. This register is submitted for the examination and control of those persons appointed by Art. 4 to inspect and visit the asylum.

All these provisions, of a domestic character, work in a smooth and satisfactory way, but being little known to the public, they scarcely attract notice. Consequently, nobody cares to criticise them, and very probably they will not undergo any important change.

The foregoing remarks refer, we repeat it, to voluntary commitments made by the families, which are naturally the less numerous, since the largest proportion of lunatics are committed upon an order from the public authority.

In principle, and according to the letter of the law, these commitments are of two kinds: one of them a police

measure respecting individuals "whose state of insanity endangers public order and personal safety" (Art. 18); and the other a measure of relief, or hospital charity, "towards lunatics whose mental condition does not endanger public order or personal safety" (Art. 25). Different maintenance rates were to be charged and arranged by the departments and the communes, according as the patient belonged to one or the other of the above categories. But this was a very impracticable distinction, chiefly based on interested and always arbitrary local valuations. Consequently, it has been rejected almost everywhere, and, as a rule, in most of the departments all official commitments are alike, without any distinction as to the character of the insanity, or the estimate of cost of maintenance.

These commitments are effected upon an order from the Prefect. The law enacts that the necessity for the commitment should be shown, and that the order should assign the reasons which render it necessary (Art. 18); but as there is no further provision specifying how the cause or reasons are to be set forth, it follows that, legally, the medical certificate is not indispensable. Nevertheless, as a rule, the Prefects always require it, and only under very exceptional circumstances do they order an official commitment to an asylum without a medical certificate therefor. For all these reasons it is very desirable that an obligatory certificate should be required by law, in conformity with the prevailing practice, and to silence those who might be disposed to impeach the law for investing the Prefects with an unrestricted and arbitrary power. It is needless to state that every commitment has to be preceded by an inquiry ordinarily made by the Maire, the Justice of Peace, or the Superintendent of Police of the locality.

The alacrity with which this inquiry is conducted, and the consequent decision of the Prefect, vary a great deal according to the departments; pending the commitment to a special asylum, the ordinary hospitals or asylums are bound to receive all lunatics provisionally. For these are never allowed to be regarded as prisoners, or committed to any prison (Art. 24).

These provisional measures are indispensable, but as the time they take depends chiefly on the local practices of the several *Prefectures*, they, on this account, differ considerably, and there is no denying that they are also a source of real abuse. To obviate this, a maximum limit should be fixed

upon for the provisional sojourn of lunatics in ordinary asylums, either while awaiting transfer to other places, or while under observation. Such a reform is no less required by the ordinary hospitals, in no wise intended by their arrangements for the proper treatment of lunatics, whose stay therein has also a damaging effect. This would also promote the usefulness of the special asylums, recognising as we do how essential it is that methodical treatment should be instituted as speedily as possible after the beginning of the malady, to secure recovery. This is one point of detail loudly calling for improvement.

Article 19 of the law has given rise to contradictory interpretations. It is thus stated: "In case of imminent danger, attested by the certificate of a physician, the Public Commissaries in Paris, and the Maires in the other Communes, shall order all the necessary provisional measures in regard to persons affected with insanity, and shall report thereon, within twenty-four hours, to the Prefect, who shall thereupon act conformably to law." This is a very important article, and the practical interest connected therewith rests on knowing which are "all the necessary provisional measures" to be resorted to by the Maires in cases of imminent danger. Do such measures involve the direct and immediate removal of the patient to the nearest asylum, or are they simply limited to the transfer of the patient to an ordinary hospital, or only, again, to his maintenance, under proper supervision and care, either at his own house, or at any other dwelling, inn, room in the municipal buildings, &c.? The interpretation of this section of the Act and its practical working in different parts of the country vary. In some departments the Maires are authorized to send very dangerous patients directly to the asylum; in others this is formally forbidden, chiefly on financial grounds, so as to prevent that an expense which is altogether departmental should be incurred without a personal decision from the Prefect. This is a matter of administrative jurisprudence which needs to be regulated; its best solution as regards the patient and public safety, which are of the most importance, should be to empower the Maires to send the patients directly to the asylum, but enjoining upon them at the same time great prudence in the exercise of such power; the pecuniary risks to be entailed by this measure on the departments would be of little consequence. At all events, any solution would be preferable to the existing incertitude.

The official commitments being always, with rare exceptions, to public asylums, the visit of the physician appointed by the Prefect, and which has to take place within three days, as directed by Art. 9, is then omitted. Every other formality of examination, such as notices, medical certificate after 24 hours' and 14 days' admission, the report to the Procureur of the Republic, and monthly written statements by the physician, entered in the official register, are exactly the same for lunatics admitted by official commitment as for those voluntarily sent by their relatives, besides which, in regard to the first or official commitments, the physician has to send every six months—in January and July—a report, guided by which the Prefect orders that the patient shall continue in the asylum for another six months, or be discharged, as the case may be.

Discharge from the Asylum.—The law, notwithstanding the statements to the contrary, has fully provided for the discharge of patients, and the means of obtaining it are numerous. Let us, at first, consider the lunatics voluntarily placed in asylums. Art. 13 enacts that they should be liberated as soon as the physician to the asylum certifies that they are cured. Undoubtedly the patient is usually returned to his family or friends; but should he be friendless, should nobody ask for his discharge, then the very fact of the certificate of cure, entered by the physician in the official register, opens the asylum doors to him. In the case, however, of a minor, or other person incapable of managing his own affairs, notice should be sent to those persons to whom he will be returned and to the Procureur of the Republic. Even without any acknowledgment of the patient's cure by the physician, however, his discharge can be obtained from the asylum on the request of the guardian, husband, wife, relative, or the person who applied for the commitment or signed the order of admission, or from any person authorized by the deliberations of the lunatic's family—*conseil de famille.* If there is any disagreement between the parties qualified to ask for the discharge, the matter is decided by the said *conseil de famille.* Evidently it would be impossible to enact more liberally, and, without doubt, the discharge of the patient from the asylum is as untrammelled as his voluntary admission into it. When the physician considers the patient particularly dangerous and perilous to public safety, he may refuse to discharge him, but must, within twenty-four hours, report

the fact to the Prefect. This latter is further empowered to order, of his own accord, without assigning any reason therefor, the immediate discharge of any person voluntarily placed in any institution for the insane (Art. 16). Seldom, indeed, does a Prefect exercise such privilege, and, when he does it, it is generally after advising with the physicians. But, finally, he is nevertheless free to act without such consultation, and he is thus empowered with considerable and perhaps undue authority. On this account it is intended to have this article modified so that, previous to the discharge, the Prefect should ask the opinion either of the physician under whose care the patient is, or of any other independent medical authority, but always remaining free to follow or not to follow his advice.

As regards patients officially committed, whenever the physician to the asylum (Art. 20 and 23) declares that their discharge is advisable, the Prefect is immediately notified of it, and the law enacts "that he should act without delay." It is not, however, stated that he must necessarily order the discharge; yet there is no other interpretation to put upon this provision, and, in practice, a declaration of cure and the order for the discharge of the patient always follow each other. It may be conceived, however, that the Prefect, if he entertains any uneasy apprehension as regards the liberation of the patient, might, notwithstanding the physician's declaration, hesitate to grant his discharge, and acting as any one similarly placed might do, fall back upon Art. 29, which will be presently considered.

Right of Legal Redress.—The foregoing remarks on the different means of discharging from a lunatic asylum a person voluntarily or involuntarily confined therein refer to the physician, the family or friends of the patient, and to the legal powers of the Prefect. Yet to judicial authority is entrusted the natural safeguard of the rights of the community; anything affecting personal liberty being too important to have been passed over by the law of 1838, it has provided for its protection in the most ample and efficient manner, by the enactment of Art. 29. This enactment is of the greatest consequence, both in theory and practice, and worthy, therefore, of all our attention. It is thus framed: "The guardian in the case of a minor, and the *curateur*, or any relative or friend, of any person placed or confined in an institution for the insane, may, at any time, apply for his or her release to any law court held in the locality where the

institution is situated, and upon the necessary inquiries, the Court shall, if it deems it proper, order forthwith the discharge of the said person. The persons who asked for the commitment, and the Procureur of the Republic, officially, may present the same application to the Court. The decision shall be rendered upon a simple request."

The Court, takes the decision "*en chambre de conseil,*" that is, in a private sitting, where the public is not admitted. It does not give the reasons for its decision. It says only that the demand of X must be or must not be acceded to.

It results from this enactment that any person besides the patient, or whoever is interested on his behalf, can, at any time whatever, demand that the Court examine whether the patient may be liberated. A simple letter addressed to the President of the Court, through the post or otherwise, suffices for this purpose. Thereupon the Court must institute the necessary inquisition, it alone being the judge of the measures needful to ascertain whether the demand is or is not rightly founded. To this end the Court may order one member of the bench to examine the patient, or that this latter should be brought to be personally interrogated by the Court, or the Court may not go beyond examining the writings of the patient, or the records of his case, or it may, again, ask for a report of the attending physician, or, finally, order a medico-legal inquisition by one or more physicians not connected with the asylum where the patient is confined. In this latter case, the physicians' fees are to be paid by the patient or by his family. The other proceedings are entirely gratuitous, and may be repeated as often as it may suit a lunatic whose demand has been rejected. Some parties resort to a solicitor to present their demand to the Court, and have it defended by a barrister, expecting thereby to be more successful, and, as they are free to pursue this course, they must naturally pay their legal advisers. But the intervention of these latter is entirely optional, while the belief that the case is examined into less carefully when the demand has been made in a simple private letter is not at all warranted.

To sum up, nothing is easier or cheaper to a patient confined in a lunatic asylum than to submit the legality of his confinement to the decision of the judicial authority, and it seems, indeed, impossible to devise a more equitable legislation than the present in this respect.

This legal provision is not only a protection to the

patient, but also of invaluable help for the physician: in the case of a lunatic apparently cured and not fit to be yet liberated on account of his probable early relapse, or in any other embarrassing instance, the physician, to protect his own responsibility, can advise the patient to address himself to the President of the Court for a judicial decision on his case.

We repeat it, this Art. 29 offers to everybody one of the strongest safeguards; instead of dreading it, physicians to lunatic asylums ought to desire that it should be resorted to more frequently, so that magistrates would acquire, by being compelled to deal repeatedly with the difficult problems connected with insanity, the practical experience without which they run great risk of erring in their decisions.

Expenditure for the Care of Lunatics.—It is needless to dwell at any length on the articles referring to the expenditure for the care of lunatics (25 to 28). Suffice it to state that the cost of treatment of lunatics voluntarily committed is charged to the patients themselves or to their relatives; that the same principle is carried out with lunatics officially committed who are not indigent; that the latter, that is to say pauper patients, are treated gratuitously, the rates of maintenance being defrayed by the several departments conjointly with the communes, who are bound to agree thereto; the small and poor communes contribute a trifling amount, whereas those embracing large and rich cities pay as much as half of the total expenditure.

Protection of the Property of Lunatics.—We will close this summary of the French legislation on lunacy by noticing the measures provided to protect the pecuniary interests of patients in lunatic asylums. This is, indeed, a very important phase of the question, and although the French law is already very fair in this matter, it needs, as is generally acknowledged, some improvement which will constitute one of the chief advantages of the reform in contemplation. The Civil French Code, following the ancient practice, orders the interdiction of persons in a habitual state of imbecility, dementia, or fury (Art. 484, *et seq.*). They are deprived of the power to administer their personal affairs and property, and are in the position of minors, under the direction of a guardian or trustee appointed by the Court after the proposition of the *conseil de famille*, that is of the nearest relatives or friends. This guardian is charged with the

management of their interests and of seeing to their proper maintenance in the manner already settled by the Court.

If there be a slighter degree of intellectual weakness or trouble, the Court is satisfied with appointing a committee to protect the patient. The subject of this measure remains master of his conduct and free to dispose of his income; but he cannot alone undertake any transaction involving the capital of his fortune without the approval and sanction of his committee.

The interdiction is ordered upon a judgment after special proceedings, which may last not less than several months, and often much longer, involving judicial costs which, although by no means so excessive as those attached to the simplest English *de lunatico inquirendo*, are nevertheless too onerous for small fortunes. Previous to the law of 1838, when a person, not interdicted, was placed in a lunatic asylum, the administration of his interests had to be unavoidably suspended, and, to resume it in a legal manner, it was necessary to wait until the person was discharged from the asylum, or interdicted. In the meantime all his affairs remained postponed, or had to be discharged by expedients and artifices more or less illegal or compromising to the rights of the patient, and quite irregular in the eyes of the law. This practice is, we believe, still followed out in England with lunatics not under the Lord Chancellor. The evils of this condition of things were exposed in the discussions from 1836 to 1838, with general acknowledgment of the necessity of avoiding them by provisions for the protection of the interests of the patient and the management of his estate, without the necessity of resorting to the long, expensive formalities connected with the interdiction, which is, besides, in itself such a serious measure, that, once ordered, it becomes permanent unless it is superseded by a new judgment rendered upon proceedings similar to those required to obtain the interdiction.

To obviate these embarrassments, Art. 32 of the law of 1832 directs the Court to appoint a provisional guardian of the estate belonging to any person, not interdicted, placed in a lunatic asylum, whenever a demand is made to that effect. This appointment is made by the Court, in private sitting, the *conseil de famille* and the Procurator of the Republic having previously given their advice.

These proceedings are much simpler, shorter, and more economical than those for the interdiction. There is

between the two the capital difference that the Court has not to inquire into the mental state of the person placed in the asylum, nor to verify the existence of his insanity, but only to concern itself with confirming the fact that the person has been placed in a lunatic asylum, which involves *ipso facto* the impossibility of the lunatic administering his affairs and protecting his interests. This then is remedied by the appointment by the Court of a provisional guardian, who assumes, within certain limits, the administration and protection of the estate and interests of the patient. From two to three weeks' time and an expenditure of from four to five pounds sterling are sufficient to obtain this appointment. Yet even this has been considered an onerous charge for the means of several individuals and injurious to the interests of many others. Consequently, to render things even still easier, it has been ordered that the Committee of Inspection of Public Lunatic Asylums and the Managing Board of Hospitals provided with special accommodation for lunatics should act as provisional guardians of lunatics, not interdicted, placed in asylums, each of the Committees appointing every year one of their number to fill this office. As such appointments are made beforehand, the guardians may begin to look after the protection of the interests of the patient from the very moment he is admitted into the asylum, and without his having anything to pay for the services of the said member of the Committee of Inspection acting as guardian, which are gratuitous. This is obviously a system of unsurpassed simplicity and liberality. From the very moment a patient enters a public asylum he finds himself already provided, without expense or delay, with a provisional guardian qualified to watch over the management of his estate, and to protect his interests, and no sooner is he discharged from the asylum than he recovers his full rights, and the provisional guardian ceases to act spontaneously without need of any legal proceedings therefor.

As a matter of fact, the guardians do not willingly undertake the management, for any lengthened period, of the estate of patients in wealthy circumstances ; in these cases, after attending to the most urgent demands and securing the immediately necessary protective measures, they direct the family to apply to the Court for the appointment of a special guardian, and should the family fail to do so, then the guardians may themselves petition for this appointment.

When, on the contrary, it is a question of an indigent person possessing scarce any property, the guardian assumes its management, and thus he may be called upon to look after small details, such as the salary for a few days' labour, the payment of trifling debts, the keeping or giving up of a labourer's lodgings, the seeing to his clothing and its removal to the asylum; all these are small matters which the guardians are quite able to manage, and they are ready at once to exercise their protective action. No doubt all guardians are not equally zealous, nor similar in diligence and punctuality, in the performance of these duties, but this we must expect in all mundane arrangements however good; but having, as is here provided, a stated authority in existence, we may, while the principle holds good, improve its application.

This special legislation, with all its obvious advantages, is, however, open to a serious reproach. We have previously shown that the provisional administration of the estate of non-interdicted lunatics is organized beforehand and ready to act at once, and is entrusted to committees with jurisdiction over public asylums only. This means that it does not exist for private asylums, which is a very serious want. Are not all lunatics, rich and poor, placed in any and every asylum entitled to the benefit of the same protection? Why then should the hazard of being placed in a public asylum insure the benefit of an immediate protection to one, while being placed in a private asylum subjects the other to the inevitable dilatoriness of special proceedings? This evil is generally recognised, and all seem disposed to remedy it by instituting for patients in private as well as in public asylums means of immediate protection prepared beforehand, and thus stop the shocking distinction which now exists between the two kinds of institutions. This would be one of the most useful amendments to this section of the Act.

We have sufficiently demonstrated here, in a general way, that the French law has provided for the protection of the interests of non-interdicted lunatics placed in asylums, and we will merely repeat that the functions of the provisional guardians cease by the mere fact of the discharge of the patient from the asylum. We will not enter into further details concerning the practical working of the provisional administration, which are matters purely technical, concerning the lawyer rather than the physician. Our aim has been to show the principle and the manner of bringing it into operation.

This rapid sketch of French legislation in regard to lunatics justifies, we hope, what we stated in the beginning respecting the real merits of the law of 1838. We point out as particularly worthy of attention the facilities allowed to patients to have their mental condition examined by the judicial authorities; and the measures taken for the immediate protection of even the least important interests of patients placed in asylums. These two orders of precautions, which were not inspired by any precedent, would suffice to recommend to us the legislation of 1838. Their work is, no doubt, capable of improvement in certain details, as asserted by the Minister of the Interior at the inauguration of the labours of the great Commission instituted in March, 1881. Nevertheless it is desirable that the main feature of the law should be respected, lest the desire of doing better should lead us to do worse.

CLINICAL NOTES AND CASES.

Moral Insanity. Case of Homicidal Mania. Contributed by H. Manning, B.A.Lond., M.R.C.S., Laverstock House, Salisbury.

In the January number of the Journal we directed the attention of our readers to the question of Moral or Emotional Insanity, and requested contributions illustrative of this alleged mental condition. Articles have appeared on the subject by Dr. Savage and Dr. Gasquet. An interesting case of "Emotional Insanity with Homicidal Violence" has also appeared in the Journal.

The following letter from a patient to Mr. Manning referring to evidence given by him on the trial of Roderick Maclean for attempting the life of the Queen is another valuable contribution to the series. In forwarding it to us, Mr. Manning guarantees its genuineness, and observes—"As evidence of the reality of the insane impulse to murder, the possibility of which both Bench and Bar seem to ignore, this letter appears to me to be of great interest." —[Eds.]

April 25th, 1882.

Sir,—

In your evidence the other day, you said that you had often asked homicidal maniacs whether they were aware of what they had done, and that their answer had been, "Yes, I knew perfectly well

what I was doing, and that I was doing wrong, but I had not the *power to control it.*"

Now, sir, *I am a Homicidal* (and sometimes Suicidal) *Maniac.* Up to the present time I have only *thought* these awful thoughts. I have never put them in *action*, but at the same time it is quite true that I cannot control them (the thoughts). But for God's help (in answer to agonizing prayer) I know not where I might ere now have been. It is awful to contemplate.

To go back. It is now 17 years since I had an attack of nervous debility, brought on by working overtime to help my dear old parents (curse overtime). One night my mother was away from home, and I slept with my father. There was an old Dagger in a cupboard in the Room, and my thoughts went unconsciously and without any will, wish, or control of mine to that, and I felt an almost irresistible impulse to get out of bed and murder my father with the dagger, but I did not. I laid and trembled, and after that fell asleep. From that moment to this I have been a different creature. Had it been an Inspiration like Disraeli's or Flaxman's, it would have led on to fortune, but being what it was I suffered indescribably. For 2 years it lasted. Of course I could not impart my terrible temptations to any one's ear. What would the result have been? I must have been put away. After that I got better and stronger, and the feeling wore off somewhat, but *never entirely.* At 27 I married, being better and stronger, and hoping that the duties of husband, father, neighbour, friend, and citizen, might stimulate my affections and overcome the demon of destructiveness within me. I may say it did, a great deal, and I loved the Wife and Children I possessed. Last year I had another attack of Nervous Debility, and although now I am somewhat better, yet what I suffered last Winter no tongue can tell. I have *done no act*, but I have *thought endless thoughts*, such and so many that I felt I was mad.

Now, notice. For 18 years I have performed all the duties of life *with credit*, and I have obtained the confidence and esteem of everyone, almost, with whom I have come in contact. I *love* religious services and reading good books, and good company, and no one can accuse me of unkindness or want of sympathy that I know of; yet all these years I have been on the verge of a precipice, with the perpetual fear of becoming either a *felon* or a *maniac.* But for this mania I should be the happiest of men. If you were to see my Bible you would find that all such passages as "By this shall all men know that ye are my disciples *if ye have love one towards another*," are underlined. Oh that I could think them. You know the text that says, "As a man thinketh in his heart so is he." What do I continually think? *I am continually "devising evil against my Neighbour."* When I am out in the open air, and have enjoyed communion with God in earnest prayer to Him, it seems gone, but the moment I step indoors, I see a Knife, and then—Oh, my God, why is it so? I have

never carried a pocket Knife for months. I did for a long time, but for months have not dared to do so for the sake of others.

I do not feel that I deserve to be called a Hypocrite, for paradoxical as it may seem, I have never had but ONE *ambition, which was to leave the world better than I found it, to benefit my fellow men, and to serve God faithfully.* At the same time since that unhappy night I slept with my father, I am also filled with what I conceive a *demon of pure destructiveness.* It shows itself as follows:—

1. When in a Town I dare not carry a Stick, or I should smash some of the large Windows. I feel sometimes I must do so with my fist.

2. When walking the street I feel I must dash my fist in someone's face, or do some other outlandish act of foolishness, and the same when travelling in a Railway Carriage.

3. When at a Railway Station I feel an impulse to push someone or throw myself under a Carriage.

4. Indoors I suffer indescribably. Every Meal time, whenever knives are on the Table, oh! dear, will it never cease? Those I love best are nearest being my victims. I sometimes feel I must murder the lot. *If you are a religious man pity* and *pray* for me.

5. Go where I will, be where I may, in Church, Chapel, Street, House, or public Meeting of any sort, the same ideas pursue me. *I hear* NO *voices.* It seems an IMPULSE, as in other people there is an impulse to go whoring, &c., when no object is present to give rise to the thought. But I argue this way. Sins of the flesh, avarice, ambition, &c., are *natural,* my mania is *un*natural; and whatever is unnatural must be wrong. Still it is all of no use. However I will hope, strive, pray, and endeavour by God's help not to fall. I am certainly in Hell. Such thoughts form a Hell to anyone who has just sense enough to know they are wrong.

Now for my object in writing to you.

As I have said I hope never to commit any act. I strive, I pray, I hope the cursed thoughts will leave me, *but if at any time I should fall, then I shall refer to you to produce this Letter.*

Another reason is that *unburdening myself will give me relief.* In all other temptations a man can consult his fellow man. Can I? No. *I have had to carry this burden all these years,* and I am naturally open, truthful, and confiding. Of course I should be sorry for Wife and Children ever to know me. If I go to my grave "*in peace*" they will never know anything of this, and although I have written it hoping you will preserve and file it, I trust never to have to call for it to *expose either those I love or myself.*

I trust to your honour, although I dare not sign my name. If ever I get past control I shall take train to your place, and you will know what to do with me. *Your address and the date of this Letter will be in my pocket book for future reference, but in cypher.*

I am passing Thetford, so I shall get off, post this there, take the next train and be in another part of England before you get this.

All my ingenuity seems to centre round destructiveness. I can see at all times how, with edged tools, stones, sticks, or anything else, it would be *easy* to *destroy life.*

However nil desperandum.

I will hope on, but in the meantime I remain,

Yours in tears,

SUFFERER.

P.S. I consider that Palisy the Potter, Livingstone, Geo. Stevenson, Edison, the Electrician, John Howard the Philanthropist, F. Nightingale, and Lord Shaftesbury, are all examples of Maniacs, and Good Templars, &c., are also.

In these cases their mania is or was (in each case) *beneficial to humanity*, but *it was* a *mania* because it was a *predominant idea* which ridiculed opposition, and enmity could not overcome. MINE IS THE OPPOSITE. *Who is responsible? Am I? I trow not.* Talk about Self Control, I have more discipline in Self Control in a week than some of my fellow Creatures have in a lifetime, and at times I tremble on the brink with one foot nearly over.

Do you know *the very writing of this has made me feel better.* I went to a religious meeting a short time ago where I felt I must do some foolish thing to ruin myself. When returning home bemoaning my hard fate, I heard no voice, but these words came into my mind, "*Thou shalt be delivered, and shalt yet live to praise and glorify my name.*" How grateful I was for the comfort, but I was beginning to despair of being delivered when I read your Evidence (the paragraph I have quoted at the beginning *I shall always keep by me*), and knew the latter to be *so exactly true* that I felt I must write to you, and I believe and hope that my emancipation will begin from the moment I post this if it has not begun already. The feeling that someone shares my terrible secret with me (*although he has no power over me to betray me*) is already a relief, and will help me I am sure.

My apology for this long epistle is the gravity of the subject matter, and if I get any better I will write you again one day to say so. If otherwise—but I will not contemplate that just now.

A *parson* would consider this Letter a hoax, but you will know better. It bears its genuineness on the face of it. None but a *homicidal Maniac could compose it, or a Doctor like yourself, always with such people, understand it.*

The evidence of Dr. —— was off-hand and unprecise compared with yours.

Allow a Maniac to compliment you on the accuracy of your description of a Hom. Maniac.

The only point where I differ from you is, that I sometimes think it my duty to *sacrifice* my *favourite child as Abraham* was tempted to do, but then he didn't do it, that's one Consolation.

I am not afraid of this Letter becoming public, although the very perusal of it would send some weak minds clean off.

Two Cases of Epilepsy Associated with Cerebral Tumour.

By W. Herbert Packer, L.R.C.P.Lond., Senior Assistant Medical Officer, Salop County Asylum.

The following cases, especially the second, are interesting in connection with the seat of the lesion and its effect on the functions of the motor centres as shown by the nature of the convulsions :—

A. Y., female, aged 15, was admitted into the Salop and Montgomery Asylum on the 26th May, 1882, suffering from epileptic dementia, her noise, irritability, and restlessness rendering her unmanageable in the workhouse.

Facts as to her history were scanty and obtained with difficulty, as she was illegitimate, and had been several years before left by mother, who had emigrated, to care of an aged and infirm grandmother. She was reported to have had fits, but not frequently, for three years. Previously she was apparently fairly intelligent, as she attended school and was able to read and write.

On admission, she was thin and in poor health—movements awkward and restricted. Had a harsh, dry cough, and a temperature of 103·6 Fahr., coarse, moist râles, and slight dulness over both pulmonary bases. Mentally she was exceedingly irritable and spiteful, slapping anyone who touched or moved her, and opposing everything that was done for her, crying out in a peevish manner if restrained, and kept in bed with difficulty. Refused food and medicine, would not allow pulse to be counted or any more examination than she was compelled to submit to. Did not speak intelligibly, but muttered peculiar plaintive sounds as if in pain, particularly on any attempt to move her. The temperature fell to normal on June 3rd, by the 10th the lung symptoms had disappeared, the patient was out of bed, fairly cheerful and well-behaved, and supposed to be convalescent as regards her bodily health.

However, the temperature again rose on July 4 to 104·2 Fahr. in the evening, but gradually sank to normal on the 20th. On August 8th there was slight pulmonary basic congestion and a temperature of 104·7 Fahr., which persisted with slight variations until the 13th, when she died.

The first fit she is reported to have had after her admission was on the night of the 15th July, but this was followed at intervals by several others. These were described as very violent, the movements being very extensive, the patient falling out of bed, and being with difficulty restrained and prevented from injuring herself. Her mental state continued much the same as on admission up to three days previous to her death, when she became comatose. She was at all times wet and dirty in her habits.

Post-mortem examination—made 68 hours after death. Body

much emaciated—marked cadaveric rigidity; calvarium of medium thickness and soft; dura mater very slightly adherent. Much semi-purulent matter was found in the meshes of the pia mater between the convolutions, and especially towards the base of the brain. On removing the encephalon two or three ounces of semi-purulent fluid escaped from the sub-arachnoid space.

Cerebrum—Substance firm; puncta cruenta well marked.

At the base a tough membrane was seen stretching across the interpeduncular space, and beneath this a tumour—rounded, thinly encapsuled, soft, and pale yellow in colour, projected from the right middle cerebral lobe and protruded into the interpeduncular space, pressing the adjacent part of the middle lobe outwards and displacing the optic nerves, commissure and tract, the third nerve, and right crus. The pons was pushed somewhat to the left, and the fourth nerve lightly pressed upon.

On section the right corpus striatum was found to be occupied and swelled out by this soft mass. The tumour was about $1\frac{1}{2}$in. in diameter, thinly encapsuled and separated from the optic thalamus, and in part from the descending cornu of the lateral ventricle, by cerebral substance. Its microscopic characters showed it to be a round-celled sarcoma with degeneration of the central part.

There was congestion—apparently hypostatic—of the pulmonary bases posteriorly, and some of the bronchial tubes exuded pus on pressure. Mesenteric glands were enlarged. No further lesions were observed.

A. W., male, aged 19, admitted into the Salop and Montgomery Asylum July, 1881, suffering from epileptic mania. Said to have had fits for three years, due to fright in the first instance. He was described as very violent before and after these attacks, and prone to extended movements during unconsciousness, *e.g.*, clambering over chairs, tables, &c.

On admission he was found to be a muscular youth with well-nourished frame and of medium height. Countenance heavy and features coarse. No paralysis of motion. Mentally he was irritable and excitable, incoherent and irrational, and memory defective. When not in *status epilepticus* he was fairly docile and obliging, but always apt to take offence at trifles. He frequently during his residence here had twenty or thirty fits per diem for several days in succession. After this there would be an interval during which he would have perhaps only one fit daily, but in these single attacks the movements were much more extensive and more co-ordinated. Thus he has been seen to seize a chair and turn a complete somersault still clinging to it, jump high up in the air, or leap bodily out of bed as the first symptom of a fit. This would be succeeded by the most violent jactitation of the limbs, rolling across the room, &c., the patient often injuring himself. On one such occasion he fractured the olecranon process of his right arm.

These attacks continued, alternately with fairly good health, until March 20th, when the number of fits began to increase, and continued to do so until the 28th. They were then too frequent to be counted—that is, he was lying comatose with clonic spasmodic attacks every five or ten minutes. The only treatment of benefit to him was frequent small doses of chloral either by the mouth or rectum, with sinapisms. He died on the 31st.

Post-mortem—72 hours after death. Body well nourished—many small elevations as from sudamina on chest and forehead.

Calvarium normal; dura mater slightly adherent.

Cerebral tissue firm; puncta cruenta well-marked; ventricles dry. A tumour about the size of a cob-nut, globular, encapsuled, firm, freely supplied with blood-vessels, about the colour and consistence of the cortical substance of the kidney, was found in the extra ventricular portion of the left corpus striatum, comparatively near the base.

Lungs were congested at bases, and portions in that situation were friable and sank in water.

Stomach contained several ounces of a tarry material mixed with egg and milk. Nothing worthy of note in the other organs.

Sudden Death from Rupture of a Thoracic Aneurism in a Case of Melancholia. By T. B. Worthington, B.A., M.D., Senior Assistant Medical Officer, Sussex County Asylum, Haywards Heath.

History of Case.—William H., æt. 62, was admitted into this asylum on 2nd December, 1880, suffering from melancholia. He was brought from the Brighton Workhouse, where he had been for a fortnight. The relieving officer was unable to give any history of the case, as the patient was a vagrant, and had no known relatives. He had been discharged from the workhouse some days previously, and immediately he left lay down outside the gate, and remained in that position all day, and in the evening was again admitted. This happened several days in succession, and eventually the stipendiary sent him to the asylum.

On admission he was found to be a thin, emaciated old man, in a very weak state. His heart's action was feeble, but the sounds were normal; pulse 72. His pupils very equal in size, and responded to the stimulus of light. He had lost part of the middle finger of his left hand, and was tattooed on his left arm. There were no other marks or injuries on his body. His height was 5ft. 4 inches, and weight 7st. 2lb. Mentally he was very depressed and taciturn, and would not give any account of his past life. He would not enter into conversation, and his replies were "Yes" and "No."

Progress of Case.—He improved somewhat after admission, and looked more cheerful ; he took the ordinary diet readily, and did what he was asked, but at no period of his sojourn in the asylum did he ever speak to any one unless first addressed. He felt the cold winter severely, and suffered from languid circulation, but never made the slightest complaint about his health.

In the spring his physical condition much improved, but his mental state remained unaltered. He went to work in the garden, and continued at this occupation during the summer and autumn. During the past winter his daily exercise was restricted to the airing courts, and on the 28th March he returned to garden labour. He did not make the slightest objection to do so, and on that and the following day employed himself with light work. On the evening of the 29th he took his supper as usual, and walked upstairs to a large associated dormitory, in which he usually slept, undressed and tied up his clothes himself, and got into bed. In a few minutes, a patient, a fairly intelligent man, in the next bed, heard him sigh once or twice, and called the attendant, who went to him immediately, and found him all but dead. In fact, he only breathed once afterwards. He had no quarrel or struggle with any one during the day.

Post-mortem examination 42 hours after death.

The body weighed 9st. 2lb., and was well nourished. There were no marks or injuries on it except those previously mentioned. There was no cicatrix of a chancre on his penis, nor were there any scars on his groins.

The Brain.—Weight 49ozs. The skull cap was thick and dense ; the arachnoid was somewhat opaque and œdematous. The pia mater stripped with ease from the surface of the hemispheres. The brain substance generally was extremely anæmic, the grey cortical structure was thin and atrophied, but the basal ganglia were apparently normal. The arteries, especially those of the base, were far advanced in atheromatous degeneration.

On opening the chest in the ordinary way, the posterior surface of the manubrium of the sternum was found to be deeply eroded from the pressure of a thoracic aneurism, about the size of a large hen's egg, which affected both the transverse and descending portions of the aortic arch The posterior portion of the aneurism, which was lying on the trachea, was filled with a laminated clot, and anteriorally and laterally, just at the junction of the two portions, there was a ragged aperture, about the size of a shilling, through the ulcerated walls of the vessel, which opened into the left plural cavity. There was an enormous blood clot, weighing exactly 3lbs., surrounded by about 15ozs. of clear straw-coloured serum, in the left plural cavity. It was very firm, and was removed in its entirety with the exception of a small portion weighing 2ozs., and when placed on the table looked extremely like a highly congested liver.

The left lung was completely bloodless, collapsed, nearly white in

colour, and weighed only 7¼ozs. The right was bloodless, but not collapsed, and weighed 16ozs.

The pericardium contained about an ounce of clear serum ; the heart was covered externally with a large quantity of fat. Its muscular structure was friable, flaccid, and showed under the microscope distinct fatty degeneration. All the valves were healthy, and it was quite empty. All the thoracic aorta was highly disorganized with atheroma, but there was no other aneurism in the body.

The liver, like all the other organs in the body, was anæmic.

The kidneys; the capsules stripped off with ease, leaving pale, smooth surfaces; the substance was anæmic, but otherwise healthy.

This man's weight was 128lbs., and if the total quantity of blood in the human body is $\frac{1}{13}$th of the body weight—and this is the generally accepted proportion—it will be found that as the clot weighed 3lbs., very nearly one-third of all the blood in his body was in a coagulated condition in his left plural cavity. When removed, as before mentioned, it looked extremely like a highly congested liver, and was about the same size as that gland.

Sir Thomas Watson, in his classical work on medicine, makes the following comment on Thoracic Aneurisms: "It is an interesting fact, deduced by Dr. Sibson from the analysis of nearly 900 instances of aneurism, that those cases which end by rupture of the sac are attended during life with less formidable symptoms than those which kill without such rupture ; and sometimes with no symptoms at all. The patient may seem and may believe himself to be in perfect health."

These remarks are very applicable to the present case.

The patient never made the slightest complaint of feeling unwell, and increased two stone in weight in sixteen months. He had no visible dyspnœa, cardiac or pulmonary, no cough, no aphonia—he certainly spoke but little, but what he did say was distinctly audible—no paralysis, and his adipose tissue proved beyond doubt that he had no dysphagia, and yet a post-mortem examination showed that for months he had had a large intra-thoracic aneurism, which must have exerted a certain and constantly increasing pressure on the surrounding vital organs.

It was known that he had a weak heart, with probably fatty degeneration of the muscular structure, but he had no valvular disease. This was verified at the necropsy. The diagnosis would have been surrounded with the greatest difficulty in a sane and intelligent patient, but in a taciturn melancholiac it was impossible, and his death was thought to

result from failure of the heart's action, due to fatty disease, until the post-mortem showed the real pathological changes that had taken place.

Intra-thoracic aneurisms generally terminate life either by pressure on the neighbouring organs, or by hæmorrhage from rupture. Numbers of cases have been and are yearly recorded with most accurate descriptions of the physical signs and symptoms during life and the mode of death. If by pressure, a long account is given of the pathological changes, and if the sac bursts, the exact position of the rupture and what it has broken into are mentioned, but in few cases any notice is taken of the size of the clot.

This case conclusively proves, that is, if any proof were necessary, the absolute necessity for making post-mortem examinations in all cases that die in asylums. Until this is done, from the nearly total absence of prominent signs and symptoms, and from the mental condition of many patients preventing them from making complaints as to their physical states, a large number of obscure lesions must remain undetected, and by no other means can a thorough advance be made in the pathology of insanity.

In conclusion, to show the prevailing ideas on the subject amongst the poor in Sussex, I quote from Dr. Williams' last annual report of this asylum: "Thirty-six post-mortem examinations have been held during the past year. These are much fewer than they ought to be. It is fully recognised by the medical staff how important, from all points of view, such examinations are, being, as they undoubtedly are, a safeguard to the patients against undetected ill-usage, and an aid to the medical officers in their treatment. Every endeavour is therefore used to induce the relatives of the patients to agree to them, but there is such a great objection in this county amongst the poor to what they consider this desecration of the dead, that even in the cases where post-mortem examinations have been made, consent has only been obtained with great difficulty."

OCCASIONAL NOTES OF THE QUARTER.

The Annual Meeting.

Each Annual Meeting possesses its distinctive features of circumstance or place, or of both, as in the case of that of 1882.

It was the first occasion on which the President was not selected from the ranks of those who are termed mental physicians, and the Association met for the first time in Glasgow.

Fresh in circumstance and place, the meeting passed off successfully, the one cause of regret being that it was not more largely attended, not only by the English, but by the Scotch members. The absence of the professors of the Glasgow University as visitors at the meeting or guests at the dinner was, doubtless, owing to the Session having closed.

Dr. Scott Orr was present at the afternoon meeting, and represented the Faculty of Physicians and Surgeons, of which he is the President.

Professor Gairdner's Presidential Address will be read with interest by those who had not, and with renewed profit by those who had the privilege of listening to it. His standpoint permitted him to take a philosophical survey of the subject of his discourse, which would not have been so easy or so unprejudiced from one more directly or exclusively interested in the special work in which the members of the Association are engaged.

Looking at the proceedings of the Glasgow meeting, it is a satisfaction that the Statistical Tables, the further consideration of which was postponed from the meeting last year, were adopted with the modifications introduced in the interval by the English and Scotch Committees.

It may be said that a general sentiment prevailed loyally to adopt and carry them out, and if found defective after a year's trial, to amend them still further.

The meeting, the trip on the Clyde, and the dinner, have, we are sure, left behind them nothing but pleasant memories. As was remarked by a speaker at the dinner, Scotland will not be associated in the minds of those who visited it with the badge of the repellant thistle, but rather with the hospitable forget-me-not. The members were all in the mood to enjoy themselves, to get through the business of the meeting

harmoniously and with despatch, and to regard "all play and no work" as a less serious psychological error than its converse. There was, taking our cue from the President's address, a dead set at "specialism," and had any one ventured to speak of himself as a "specialist," or to characterize a psychological physician as an "alienist," he would have been regarded with suspicion.

The Association received a hearty welcome from their Scotch brethren—their houses were thrown open—and the greatest credit is due to them for the effective arrangements made for the satisfactory holding of the meeting, the general convenience of members, and the afternoon excursion, which, in spite of a high wind and threatening rain, and suggestions as to the possible loss psychological medicine might sustain, proved a success, and the beauties of the Clyde and Loch Long were fully appreciated. From Arochar the members, leaving the steamer, proceeded across to Tarbet, where Ben Lomond was seen to perfection, and the Loch, calm and blue, recalled Goldsmith's description of the mirror, that it reflects every object upon its surface without being sullied by any. One thing only was wanting to complete the pleasure of the trip—the presence of ladies. But even here our Scotch friends had a profound reason for not allowing this privilege; they knew that John Bull is never quite happy unless he has something to grumble about.

It must not be supposed that the day of the meeting was the only one upon which the members psychologized. They did not forget that it was the original design of the Association to visit the asylums in the nighbourhood of the town where the meeting was held. Hence visits were paid to the Gartnavel Asylum and the Lenzie Asylum, both of which institutions gave the visitors very great pleasure. Dr. Yellowlees and Dr. Rutherford spared no pains to show and explain all the arrangements adopted to bring up their management to as nearly perfect a point as is possible.

Some members proceeded to the Royal Edinburgh Asylum, the Murray Institution at Perth, the Inverness Asylum, and that at Dumfries, and were, we have good reason to know, gratified with the reception accorded them, and the efficient management of the asylums which they witnessed.

The members of the Association will, in truth, always remember with pleasure the Annual Meeting of the Medico-Psychological Association held at Glasgow on the 2nd of August, 1882.

Broken Ribs and the Press.

The "Evening Standard," of July 11, contained a short article which, in the interest of truth and justice, demands more than a passing notice at our hands.

No member of our specialty who is engaged in responsible public work has a right to complain when his public acts are made the subject of fair and enlightened criticism. But when this criticism appears in a newspaper of respectable position, and is neither fair nor enlightened, but both ignorant and illogical, it is desirable that it should be met by a clear and temperate statement of facts, in order that the public may be enabled to form a sound judgment between the two.

The article referred to was as follows:—

Whether it is that the ribs of lunatics are particularly brittle, or that those who come in contact with lunatics have a mania for breaking ribs, may be a matter of question; but it is certain that the number of lunatics who are killed by the breakage of their ribs is very large indeed. Of course the public only hear of cases in which an investigation takes place and coroners' juries return verdicts; but we may be sure that these are not one in ten—probably not one in a hundred—of the cases of this kind which actually occur. If a lunatic dies of broken ribs, it is the interest of all parties to hush the matter up. The keepers do not desire any awkward inquiries, and, indeed, dislike absolutely the view which juries are apt to take of these cases. Superintendents are content to receive the attendant's report of the circumstances of a death without much question, because the occurrence of these repeated instances of broken ribs casts a sort of slur upon an establishment. And so all goes on merrily; lunatics' ribs get broken somehow, or break by themselves; the fact of death is notified to friends, to whom the news comes as a relief; quiet funerals take place; and the asylum continues to stand high in public estimation. Still, in spite of the efforts of attendants, nurses, superintendents, and, indeed, of all connected with the asylums, these awkward deaths arising from the tendency of lunatics' ribs to break come to light, and pig-headed jurymen refuse to believe that the ribs snapped wholly and entirely to gratify their owner's desire to injure the institution of which he was an inmate. Such a case is that of an inmate of the County Asylum, Gloucester, seven of whose ribs were found broken after death. Of course the jury were unable to learn that any assault had been committed upon the lunatic, and yet they stolidly refused to credit the self-evident fact that the ribs had cracked from sheer perversity, and absolutely returned a verdict of

wilful murder against some person or persons unknown. If all juries were as this jury, and all the cases of deaths in asylums were investigated, we wonder how many score of verdicts of wilful murder would be brought in in the course of each year.

It will at once be seen that a wholesale and an indiscriminate charge is here made both against the friends of patients, who, for selfish reasons, are relieved by the violent deaths of their insane relatives; against the superintendents of asylums, whose only object is to escape a slur upon their establishments; and against the attendants, in whom a reckless brutality is only limited by the fear of detection and legal consequences. It is moreover assumed as a proven fact that of the unfortunate patients who are done to death in asylums, only one here and there becomes the subject of a coroner's inquest, and has the cause of his death properly investigated.

These are bold, and, if warranted by facts, would be terrible, statements. Fortunately for the credit of the English asylum system, no less than for the peace of the British public, it is easy to demonstrate that such assertions are in no degree based upon fact, but are founded upon the operations of a fertile and sensation-loving imagination.

During the last five years the number of patients under care and treatment in English asylums has been upwards of 102,000. The deaths have amounted to upwards of 22,000, in more than 50 per cent. of which post-mortem examinations were made.

In this period the number of recorded deaths from fractured ribs in these establishments was 11, and in nine of these the fractures were discovered by post-mortem examinations conducted by the resident medical officers of the asylums.

Here are the bald facts. What are the fair inferences to be drawn from them?

Assuming that the superintendents of asylums, who are educated physicians, are as honest as, in the absence of evidence to the contrary, we have a right to assume them to be, and seeing, moreover, that, if they were not, they are constantly surrounded by critics who, from various causes, are certain, some of them, to be hostile, the number of post-mortem examinations may be fairly taken to represent, more than fully, the deaths which were not due to causes clearly ascertained at the time of death; in other words, deaths as to the causes of which a suspicion might exist.

The deaths due to fractured ribs, or in which such injuries were discovered to have been present during life, have amounted to just one in every 2,000 deaths, or one in every 1,000 where post-mortem examinations were made, and in several of these the coroners' juries were satisfied, from the evidence which was presented to them, that the injuries were the result either of accident or of self-inflicted violence.

But how was the existence of these injuries brought to light? Why, by the action of the very men, the superintendents of asylums, whose interest it is said to be to hush such matters up. The special case referred to by the "Standard," which formed the basis of its article, seems to have owed its discovery entirely to the fact that a post-mortem examination was made by the medical officers, who, as in duty bound, at once communicated to the coroner, regardless of anything but the discovery of the truth, if discovery were possible.

Representing, as it is the aim of this Journal to represent, both the modern humanitarian treatment of insanity and the men who are practically concerned in its development, our duty in this instance consists, not in acting as a partisan of cruelty or an apologist for wrong-doing, but in endeavouring to do simple justice to a body of men who have been grossly maligned.

It is an act of common justice to state firstly that the friends of insane patients, as a rule, are as much attached to them, and as little likely to be thankful for their deaths, as any other class of persons in Her Majesty's dominions; secondly, that the superintendents of asylums have at no time pursued a "peace-at-any-price policy" in the conduct of their establishments, but have consistently striven to maintain within them a high standard of humanity, and to expose and punish those in their employ who have committed infractions of it, and that irrespective altogether of the question of reputation of their asylums, knowing quite well that no asylum could long maintain a high character in which truth and honour and justice were disregarded; and thirdly, that while among attendants there are, as in other classes, many black sheep, they will not as a body compare unfavourably with any persons of their own rank who have to discharge duties of a most onerous and delicate nature under circumstances which are frequently peculiarly repulsive and trying.

Insane Criminals.

There have been recently * several notable examples of men before the courts or magistrates who have committed crimes of greater or less magnitude, whose mental condition raises the question of insanity, if not clearly established. Moreover they are cases which might form a text for a sermon on "Mental Experts and Criminal Responsibility."†

A man was taken up for being found in a railway carriage without a ticket, locked up, fined by two justices of the peace, and committed to jail for fourteen days in default of payment, then sent to the workhouse, and lastly to the Cambridge Asylum. He was found by Dr. Bacon to be an unmistakable case of general paralysis. Such an instance of the injustice unintentionally wrought by justices deserves to be chronicled as it appeared in the papers :—

LINTON PETTY SESSIONS.

(Before R. A. Houblon and E. Goodwin, Esqrs.)

George Duff, of Carshalton, Surrey, was charged by John Howell, Inspector of Police, with travelling from London to Whittlesford in a railway carriage belonging to the Great Eastern Railway Company without having previously paid his fare.—Fined, with costs, £1, or fourteen days.

Yet this man had grandiose delusions, muscular tremor, and mental confusion, and said that he had made £100,000 last year in removing furniture at Brighton, that he had driven engines on all the principal lines of railway, and had done so since he was two years old, and that he had been married twenty or thirty times, mostly in St. Paul's Cathedral, London.

It was afterwards discovered that he had escaped from a workhouse infirmary near London, cut his throat, and been arrested in a state of partial nudity, but was not considered *sufficiently* insane to be sent to an asylum!

A man named Charles Clark recently cut his daughter's throat at Newmarket, and was tried at the assizes held at Ipswich. He had been discharged as far back as November,

* These observations were crowded out from a former number of the Journal.

† See article on the subject in the April number of the Journal.

1880, from the Cambridge Asylum, where he was a patient some weeks, and had been in another asylum. He was obviously insane at the time he committed the act, but was apparently well when he left Fulbourn.

In the interval between the committal to trial and the assizes, no steps were taken to ascertain the state of the prisoner's mind.

Mr. Wright, surgeon, Newmarket, deposed that Clark was not much excited when he was called to attend to the wound inflicted on the daughter, but appeared perfectly insane, and did not seem to understand the nature of the act he had committed.

In this case justice was done, though in a sort of haphazard way. The jury returned a verdict of "not guilty," and the judge ordered the prisoner to be detained in custody during Her Majesty's pleasure.

The third case to which we would briefly refer is that of Henry Stebbings, a hunchbacked dwarf, convicted at the Norfolk assizes some months ago of the wilful murder of a little girl at Saham Toney, near Watton. His previous career was remarkable. In 1868 he was tried for wounding a female at Tottington and obtaining a pair of boots by false pretences, when he was sentenced to nine months' imprisonment for the former offence and three for the latter. In 1871 he was tried for the attempted murder of a girl at West Bilney, and sentenced to ten years' penal servitude. At the trial the question of his sanity was raised, but was dismissed. At the end of eight years Stebbings received a ticket-of-leave, and four days after he was at liberty he assaulted a married woman, for which he was sentenced to two months' imprisonment, and then remitted to Pentonville to complete his term of penal servitude. After his discharge he reported himself to the police at Watton, and it was again after an interval of five days that he committed his last crime, meeting his victim, a little girl, on the road, and cutting her throat with a clasp knife. There were no other marks of violence found. The prisoner is thus described: "Stebbings is a man of low intelligence, and has a brutal, forbidding look. His lower jaw is large and protruding, his forehead is villainously low and retreating, he has a hump on his right shoulder, and his arms are inordinately long." No motive for the murder was assigned. He was sentenced to death.

The defence set up was the plea of insanity, but not a single medical witness was called. Mr. Justice Grove, in summing up, said: "In this case it would be the jury's duty to inquire whether, at the time the prisoner committed the offence, he was in such a state of mind as to be unable to be acquainted with its nature. There had been no evidence of the prisoner having been confined in a lunatic asylum, and there was nothing that would lead them to think that the prisoner's mind was defective, except the expression that he expected to get only three or six months for his crime." When convicted, the judge in addressing the convict said, "It seems that you are a man of ungovernable passions; it may be from misfortune that your mind has not the ordinary power of resisting temptations as other men. I do not say this to add to any pain you must feel to know that your days on this earth are short and few."

The arrangements for the execution were all completed, down to the arrival of Marwood, when a communication was received from the Home Office that the convict was respited. An influential memorial, signed by upwards of seventy gentlemen, including twenty-six medical men, headed by Mr. Cadge, had been forwarded to the Home Secretary some days before, praying for a remission of the capital sentence. In consequence of this memorial, Sir William Harcourt directed an inquiry to be made by Dr. Orange, and Dr. Clarke, surgeon of Millbank prison, with the result given above.

In this case, again, the mode in which the final action was arrived at was very unsatisfactory. The medical examination should have been made before the verdict, not at the last moment. The superintendent of an asylum writes: "The case was clearly one of homicidal mania, and it was by a mere chance that the sentence was not carried out, and that not by the action of any 'psychologists.' The memorial affirmed that the prisoner had not had a fair trial, no steps having been taken to secure a competent examination of Stebbings' mental condition after he committed the crime or at the time of the trial."

Lastly, there is the case of Bradburn, a man of 36, charged with a double murder at Farnworth. His wife was dead, but Phœbe Hardy, aged 17, the child of his wife previous to her marriage with him, and her son Peter, aged 9, lived with him. He was always considered a respectable man by his fellow-workmen. He came to dislike a man who paid his

attentions to his step-daughter, of whom he was excessively fond. One day he called on the man's father and asked him to tell him that he didn't want him to come to the house to see Phœbe. To the latter he said, "You shall not go with him while I am alive, or else Marwood will have a job." About nine o'clock that evening was the last time the two children were seen alive, though after that hour Phœbe was heard speaking to the prisoner in a loud tone. Between four and five the next morning the prisoner was seen running in the direction of the house, and shortly after there were sounds heard there. At eight a.m. the prisoner was seen running from his house with his shirt sleeves turned up, and he was covered with blood. After going about 250 yards he stopped, and he was found sitting with his throat cut. It was stitched up, and no suspicion aroused as to the death of the children. When two women went upstairs to find a bed upon which to place the prisoner, they were discovered dead in bed with their throats cut. The prisoner wrote down, "If you look on the table you will find a note." It was as follows:—

Dear Mother,—I write these few lines to you hoping that they will find you in good helt as it leaves the children quite well but I am very sorry to say I am not well for I have had a great deal of trouble since I came to farnworth. You my dear mother I hope you will forgive me for not writing to you before now. I have a great deal of trubble on my mind yet for Phœbe has been doing a very bad trick by you. She has had young men and women in the house while I was at my work on Thursday night she was going with a young man. I can't stand my trouble much longer, for I am almost out of my mind the way she is going on. But she has promised to do better now. Plese to give this to her grandfather when you have red it, and then he will see how things ar going on. Plese to give my kind love to my sister and brother, and let them know how think ar gone on. My time is short if this sort of work goes on much longer. So no more at present from yours truely and sincerely.

From the newspaper report we add what we imagine will convince our readers that the verdict was unjust, but what we are especially desirous to insist upon is that no adequate means were taken to ascertain before the trial, and especially immediately after the murder, whether the man was of unsound mind and irresponsible for his actions. The prisoner also wrote on a slate, "My step-daughter has brought this on me; she was out every night at 10 o'clock last week when I was at my work. I have had fits all the week. I am sorry for having done it." It was proved that the prisoner 15

years ago had suffered from epileptic fits, and that for some months about that period he had been an inmate of the Prestwich Lunatic Asylum, suffering from suicidal mania. The doctor of the gaol was called, and stated that since the prisoner had been in gaol he had understood all that was said to him, and appeared quite sane. He was severely cross-examined as to epilepsy being a symptom of insanity. Mr. Blair, on behalf of the prisoner, called medical evidence to show that he had long suffered from epilepsy, and at times had been very violent. The jury returned a verdict of *Guilty*, and the Judge passed sentence of death. A petition, however, was got up in his favour, and he was reprieved.

PART II.—REVIEWS.

The Brain and its Functions. By J. Luys. Kegan Paul, Trench and Co. London, 1882. (Vol. xxxvii. International Scientific Series).

As this is an original work, it will be well in the first instance to explain the object of the author in writing it, and his method of doing it. This is an easy task, for he has himself, in the preface, referred to both. He says that it is an abstract of his personal experience, and of most of the ideas he has for many years been endeavouring to popularize in his lectures at the Salpêtrière.

He divides his subject into two parts. The first, anatomical, is the foundation of the second, which is purely physiological. In the first he explains the technical processes employed by him. His method consists in making regularly stratified sections of the cerebral tissue, in the faithful reproduction of them by means of photography, and in the employment of successively graduated powers for the representation of certain details. He claims that by these new processes, he has been able to penetrate further into the unexplored regions of the nervous centres, and to bring back correct views and faithful representations of certain territories of which our predecessors caught scarcely a glimpse. He has been able to throw fresh light upon the intimate structure of the nerve cell, on the organization of its protoplasm, and to study it *in situ*, in its connections with the nerve fibres and the neuroglia.

He sketches synthetically the general economy of the

structure of the brain, pointing out the intimate relations which exist between the cerebral cortex, the true sphere of psyco-intellectual activity, and the central organs (those of the optic thalami and corpora striata), which are in a manner the intermediate regions interposed between this and the excitations which proceed from the external world. He specially insists on the fact, which ten years ago he was the first in France to bring to light, that the optic thalamus, with the isolated grey ganglions of which it is composed, represents a place of passage and reinforcement for excitations radiated from the sensorial periphery, while the corpus striatum, with its different compartments, and arches one within another, is on the contrary directly related to the passage of voluntary motor excitations.

Having observed in the cerebral cortex special zones of small cells subjacent to the pia mater, and quite different in configuration from the zones of large cells occupying the deeper regions, he was led to see in this anatomical arrangement a clear relationship to a similar disposition existing in the constitution of the grey axis of the spinal cord. As a consequence, he was led to think that if, as is experimentally demonstrated, the small elements in the spinal cord be affected by the phenomena of sensibility, it was natural to admit *physiological* analogies where *morphological* analogies exist, and consequently to consider the sub-meningeal regions of the cerebral cortex as being the histological territory specially reserved for the dissemination of sensible impressions; while the deeper zones of large cells (analogous to the anterior motor horns of the cord) might be considered as the regions of emission (psycho-motor centres) for exciting voluntary motion. He thus arrived at the demonstration that, in the very structure of the cerebral cortex, among the thousands of elements of which it is composed, there is an entire series of special nerve cells, intimately connected one with another, constituting perfectly defined zones, anatomically appreciable, and serving as a common reservoir for all the diffuse sensibilities of the organism, which, as they are successively absorbed in these tissues, produce in this region of the *sensorium commune* that series of impressions which brings with it movement and life.

In the second part of the work, which comprises an explanation of the uses of the different cerebral apparatuses of which the anatomical details had already been analysed, he gives first of all a physiological explanation of the different

properties of the nervous elements, considered as living histological units. In this manner he tries to show that these properties, which are the ultimate generating elements of all the forms of activity of cerebral life, may be finally reduced to three principal forms:—sensibility, by virtue of which the cerebral cell enters into relation with the surrounding medium; organic phosphorescence, which confers upon it the property of storing up in itself and retaining the sensorial vibrations which have previously excited it (as we see in the inorganic world phosphorescent bodies preserve for a longer or shorter period traces of the luminous vibrations which have impinged upon them), and automatism, which is merely the aptitude which the nerve-cell possesses for reacting in presence of the surrounding medium when once it has been impressed by this.

Having surveyed each of these elementary properties of the nervous elements, he shows how their co-operation may be used to explain the principal phenomena of cerebral physiology. He thinks that he has thus demonstrated that by grouping among themselves the foregoing data, we may perceive that all manifestations of cerebral activity—even though we have to deal with the phenomena of psychical life proper, or the operations of intellectual life—like their fellows which have the spinal cord for a theatre (reflex phenomena), are always susceptible of being decomposed into three elementary phases; that they are always originally determined by the arrival of an incident sensorial impression, recent or former (phase of incidence); accelerated by the particular reaction of the interposed medium, reacting by virtue of its specific energy (intermediate phase); and completed by the secondary reaction of the intermediate medium, reacting and carrying outwards the primordial vibration which has been communicated to it (phase of reflexion).

It results then, from this manner of looking at the phenomena of cerebral activity, that it is always a fact of the vital order which is at the origin of every process of evolution. Sensibility is always the primary motor agent; it originates all movement. Propagated through the sensori-motor machinery of the cortex, it becomes insensibly transformed, like a force in evolution, and ends by disengaging itself from the organism in the form of a motor act.

In short, in these researches, in which the author's sole object has been to carry the data of contemporary physiology into the hitherto uninvaded domain of speculative psychology, he has endeavoured to show that the most complex acts of

psycho-intellectual activity are all definitely resolvable, by the analysis of the nervous activity, into regular processes; that they obey regular laws of evolution; that, like all their organic fellows, they are capable of being interrupted or disturbed in their manifestations by dislocations occurring in the essential structure of the organic substratum which supports them; and that, in a word, there is from this time forth a true physiology of the brain, as legitimately constituted as that of the heart, lungs, or muscular system.

Such, in the very words of the author, is the object of his work. We do not think that we wrong him when we declare that he has not completely succeeded, for under the circumstances we believe success impossible. Nevertheless his book is most interesting and profitable reading; for whether we agree with him in his deductions or not, we cannot help thinking as we go along, admiring the ingenuity of the speculations, the general aptness of the illustrations, and the originality of the work as a whole. As to absolute results, we do not know that physiological speculation as to cerebral function is any more productive than metaphysical, especially when, as in the case of the brain, the clearly established facts count as nothing to those about which we know absolutely nothing. With a moderate number of facts the philosophical use of the imagination may be able to show in which direction the truth lies, and thus lead to the highest results; but what can be done when the facts are few and perhaps questionable, where the organ and its manifestations in action present the most bewildering complications, and where the so-called explanations make such sweeping assumptions that the reader instinctively draws back from his guide?

From the nature of the book, to review it thoroughly it would be necessary to write a notice almost as long as itself. This, however, is out of the question, and we must be content to indicate here and there such points as have specially attracted our attention.

Whether the author is right in claiming such advantages for his method of examining the direction of the cerebral fibres we refrain from saying, not having perused his atlas, though we have it from a very competent observer that he has been able to make nothing of the plates. Taking for granted the truth of the author's anatomical observations, are his physiological deductions warranted? It would be absurd to contend that they all command ready assent, but some at least indicate truths of great value.

In spite of all kinds of opposition, the idea has gradually

gained ground that our intellectual operations are nothing but cerebral reflexes. This is well expressed in the following words:—

We generally imagine that we ordain the direction of our ideas into any desired channel, and that we can govern their evocation. We do not usually perceive that, while we imagine we are leading our ideas in one direction, we are unconsciously obeying the second phase of a movement of which the first has already taken place.

I imagine that I think of an object by a spontaneous effort of my mind; it is an illusion—it is because the cell-territory where that object resides has been previously set vibrating in my brain. I obey when I think I am commanding, merely turning in a direction towards which I am unconsciously drawn. A phenomenon quite analogous to the conjuring trick of forcing a card, takes place in this instance, the conjurer forcing us unconsciously to take a card, while letting us imagine we have a liberty of choice.

Sensorial excitations, once they are disseminated in the plexuses of the cortical substance, continue, as we have already several times said, the movement commenced by their contact with the external world. The process in evolution pursues its course, and thus they are distributed—some to the sphere of pyschic activity, others to that of intellectual activity proper (p. 254).

As bearing on the same subject, and as tending to make the author's meaning more distinct, we reproduce the following paragraphs. They also afford an excellent example of his method: how he lays hold of anatomical facts, and uses them to support his theory of cerebral action.

Now, as experience proves that the nervous currents pass across the spinal cord from the smaller to the larger cells, and that these latter never enter into activity spontaneously, but merely in consequence of an incidental excito-motor excitation, which they simply reflect, we cannot help admitting, from the most legitimate analogy, that the nervous actions must be evolved in a similar manner throughout the stratified elements of the zones of the cerebral cortex. We may, therefore, conclude that the regions of small cells in the cortex represent in the brain the posterior grey regions of the spinal cord, and that, like them, they are the territory of dissemination of sensitive impressions, designed to retain them, store them up, and afterwards propagate them to the subjacent zones. From the clear analogies which exist between these two spheres of nervous activity, the spinal cord and the brain, we are therefore led to the conclusion that the different zones of the cortical substance, taken as a whole, represent, as it were, a series of sensori-motor organs conceived on the same plan as that of the similar organs of the spinal axis; that the nervous activities are developed throughout its tissue as throughout

that of the spinal grey matter; and that in both instances the processes which take place are always—except for differences of medium, the different qualities of the elements called into play, the amplitude and complexity of the different phases of which they are composed—similar processes, reducible to the same primordial phenomena. It is always a phenomenon of sensibility that produces the movement, and excites the activity of the motor cell; and the motor act itself, whether we have to do with the spinal cord or the brain, is always, as regards its dynamic signification, merely a secondary and subordinate phenomenon, the return effect of a sensitive impression transformed.

This being the case, the phenomena of cerebral activity, as regards their successive development, may be briefly reduced to a series of processes, of regularly linked physiological operations, all derived from one another, becoming complicated in their diverse phases, but always having a common basis of elementary operations.

It is always a phenomenon of sensibility, an anterior sensorial impression, present or past, that marks the point of departure, and becomes, in a more or less sensible form, the primary stimulation that induces the movement. In a word, it is always an agitation of the sensorium, an emotion of the personality, that expresses, through the infinite series of cerebral operations, the condition of erethism which it has experienced.

Hence there are three natural phases under which we shall successively consider the mode of evolution of the different processes of cerebral activity:—

1. A phase of incidence, which corresponds to the moment when the external impressions arrive in the plexuses of the *sensorium* and are perceived there (phenomenon of attention—genesis of the notion of personality—conscious perception).

2. An intermediate phase, during which the affected elements of the cortical substance enter into active participation with the external impression, transformed into a psycho-intellectual excitation (dissemination of sensorial impressions in the psycho-intellectual sphere—evolution and transformation of these impressions—operations of the judgment, &c.).

3. A phase of reflexion which corresponds to the moment in which the primordial excitation, being propagated through the plexuses of the cortex, passes outwards, and expresses, by voluntary motor reactions, the different states of the previously impressed *sensorium*, (genesis and evolution of the phenomena of voluntary motion) (pp. 212-14).

Such speculations may not command universal assent; indeed, they are sure of vigorous opposition from some schools of metaphysicians; still they are legitimate, and compel attention. They are genuine examples of the philosophical use of the imagination. The same can scarcely be said of

the following ideas regarding tactile sensibility. Here we seem to have speculation run mad, and the whole reminds us of the late Professor Laycock, who was so apt to run riot when he got hold of a favourite speculative hobby. Who cannot recollect with amusement and admiration the sweeping conclusions he sometimes arrived at from a not by any means established and apparently insignificant fact?

Here is what Dr. Luys says about *tactile* impressions:—

It is chiefly tactile impressions that form the special contingent destined to provoke the reactions of the intellectual sphere.

Radiated from the extremities of the peripheral plexuses, gifted with a special organization (sensitive papillæ, tactile corpuscles of Pacini), these impressions furnish the intellect with a number of notions, not very numerous, it is true, but very precise, respecting the different qualities of bodies in contact with them. It is by means of them that we form our judgments respecting the dimensions and surface-condition of external bodies, and respecting their motion, temperature, and degree of dryness or moisture. It is by means of them and their fellows of muscular sensibility that we are informed of the expenditure of nerve power necessary to gauge the weights of heavy bodies, to lift them, and indirectly acquire a precise notion of their volume and solidity.

This special contingent of sensitive elements, by means of which the notion of human personality is developed and maintained, and by means of which also we are constantly in contact with the things of the external world—this contingent, I say, is still destined to vibrate in harmony with all the mental faculties, and to give specific bent to the character of the individual, as well as to the creations of his mind. We may say, then, that a greater or less degree of perfectionment, and a greater or less degree of sensitive power in the sensitive regions, find their counterpart in the central regions, and that the greater the degree of physical, the greater will be the degree of moral sensibility.

We all know how fine, delicate, and sensitive is the skin of women in general, and particularly of those who live in idleness, and do no manual work, how their sensitive nervous plexuses are in a manner exposed naked to exciting agencies of all sorts, and how, from this very fact, this tactile sensibility, incessantly awake, and incessantly in vibration, keeps their mind continually informed of a thousand sensations that escape us men, and of tactile subtleties of which we have no notion. Thus in idle women of society, and men with a fine skin, mental aptitudes are developed and maintained in the direct ratio of the perfectionment and delicacy of sensibility of the skin. The perfection of touch becomes in a manner a second sight, which enables the mind to feel and *see* fine details which escape the generality of men, and constitutes a quality of the first order, *moral tact*, that touch of the soul (toucher de l'âme), as it has been called,

which is the characteristic of organizations with a delicate and impressionable skin, whose *sensorium*, like a tense cord, is always ready to vibrate at the contact of the slightest impressions.

Inversely, compare the thick skin of the man of toil, accustomed to handle coarse tools and lift heavy burdens, and in whom the sensitive plexuses are removed from the bodies they touch by a thick layer of epithelial callosities, and see if, after an examination of his intellectual and moral sensibility, you are understood when you try to evoke in him some sparks of those delicacies of sentiment that so clearly characterize the mental condition of individuals with a fine skin. On this point experience has long ago pronounced judgment, and we all know that we must speak to every one in the language he can comprehend, and that to endeavour to awaken in the mind of a man of coarse skin a notion of the delicacies of a refined sentiment is to speak to a deaf man of the deliciousness of harmony, and to a blind man of the beauties of colours (pp. 259-61).

Is not this speculation run wild? Surely the national bard of Scotland, Robert Burns, a hard-working ploughman, understood the voice of nature better than all the idle women and scented dandies who have ever lived, and have been the curse of humanity since the world began. He had a toil-worn hand, yet his cerebral reflexes have seldom been equalled and never excelled. Leaving so-called natural genius out of the question, can we believe that a delicate skin is of more importance to the artist than an eye educated to recognise the infinite effects of light and colour; a brain able to decide how these should be represented on the canvas; and a hand able to carry out the ideas elaborated by much voluntary and involuntary brain action?

The chapter on the functions of the optic thalamus is very interesting and important. The same may be said of the one on the corpus striatum, and from it we extract the following paragraphs. They shortly and clearly express the author's views:—

Thus it follows, from what we have just explained, that the corpus striatum, like the optic thalamus, is a nervous apparatus with multiform activities.

It is a common territory into which the cerebral, cerebellar, and spinal activities come in succession, to be combined, and I might almost say, to anastomose. It thus represents, from a dynamic point of view, a synthesis of multiple elements.

It is in the midst of its tissues that the influence of volition is first received at the moment when it emerges from the depths of the psycho-motor centres of the cerebral cortex. There it makes its first

halt in its descending evolution, and enters into a more intimate relation with the organic substratum destined to produce its external manifestations—in one word, *materializes* itself.

From this moment it comes into intimate contact with the innervation radiating from the cerebellum, and it is now no longer itself, no longer the simple, purely psycho-motor stimulus it was at its origin. It is associated with this new influence, which gives it somatic force and continuity of action. It then passes out of the brain by means of the peduncular fibres, combined with a new element, and pursuing its centrifugal course, it is finally extinguished here and there by setting in motion the different groups of cells of the spinal axis, whose dynamic properties it thus evokes.

Thus also, proceeding like an electric current into the different departments it animates, it now tends to produce phono-motor movements designed to express outwardly the emotions of our sentient personality, and now to determine in the different muscular groups, general or partial movements of flexion, extension, or progression, according as it is distributed to such or such groups of satellite cells, the habitual servants of its excito-motor demand.

We see then, to sum up, by means of this simple physiological sketch, what an all-important part these two central ganglions play in the phenomena of cerebral activity, and how completely different is the mode of action of each.

The elements of the optic thalami purify and transform by their peculiar metabolic actions impressions radiating from without, which they launch in an intellectualized form towards the different regions of the cortical substance. The elements of the corpus striatum, on the contrary, have an inverse influence upon the stimuli starting from these same regions of the cortical substance. They absorb, condense, *materialize* them by their intervention ; and having amplified and incorporated them more and more with the organism, they project them in a new form in the direction of the different motor ganglions of the spinal axis, where they thus become one of multiple stimulations destined to bring the muscular fibre into play (pp. 57, 8).

There are various matters touched on in this volume which we would willingly notice if space permitted. We are, however, compelled to recommend our readers to study them for themselves. A single reading will not suffice for most men, and repeated perusal will show more and more the ability of the author and the ingenuity of his speculations. "The controversies of philosophers and metaphysicians, which have been taking place from time immemorial, have succeeded in arriving at but one thing—the expression in sonorous language of their ignorance, more or less complete, of the fundamental characters of psychical life." It is to be feared that the old metaphysicians are not alone guilty

in cloaking ignorance in a cloud of sounding words. From some of the sentences of our ingenious author it is sometimes exceedingly difficult to extract a meaning; and it occasionally happens that when the meaning has been got at, the mind feels that it has not got any further into the secrets of cerebral action. This may be partly due to the subject, which is a decidedly difficult one; or perhaps to the style, which is involved. We take it for granted that this book is a translation, and this may account for some of the sentences being long and difficult of comprehension. Mistakes are few, but they do occur. Thus at page 69 we have "accidents" for symptoms; at page 95 "coming to bring;" "function" is occasionally used as a verb; and we are not quite sure that "perfectionment" is as yet an English word.

It will be seen that our notice is largely composed of extracts from the book itself. This has been done for a definite object—to excite to the perusal of the whole work. Physicians engaged in asylum practice, and interested in something beyond administrative details, will find much to interest them and much food for reflection. The whole of Book II. must be specially attractive to them, and they will also study carefully the chapters which treat of the genesis of pathological states; the genesis of the notion of personality; the explanation of somnambulism; and the perturbations of automatic activity in insanity.

T. W. McD.

Evolution, Expression, and Sensation, Cell Life and Pathology. By John Cleland, M.D., F.R.S.

The merit of this little book by the Professor of Anatomy in the University of Glasgow may be said to be in inverse ratio to its size. Dr. Cleland holds that the evolutions of organization are definite in their character, and that the highest evolution of animal life completes itself in our race. Development marches forward to a completed whole. Professor Cleland does not, however, scruple to recognise design in development. Thus he writes: "There is morphological design, and when in any line of development the design is completed, the evolution ceases, although by the operation of environment or external circumstances variations may continue to occur, and degenerations of diverse kinds may take place."

Let us take as more especially related to mental science his analysis of human expression, upon which the author grounds one of his proofs of the existence of symbolic correlation, such correlation being evidence in his opinion of the place occupied by the underlying element which design presupposes.

The question at the root of this inquiry is, "By what means do movements of the body, or more widely, conditions of matter, afford an index to conditions of the mind?"

It is by what we see and hear that we form a judgment of another's mental condition. We see his expression; we hear the tones of his voice.

The origin of language at once becomes a problem for solution. How have certain ideas become associated with certain words, and how have certain gestures and features become associated with certain emotions and thoughts?

The author does not expect philology to throw further light on expression by feature and gesture than that afforded by the recognition of the fact that language is a symbolic mechanism, like any other outward expression. This recognition is, however, important in supporting Professor Cleland's views; for he argues that if, as is not denied, the complex symbols of language have arisen during man's existence on the globe, it is not necessary to suppose that gesture-language, which is less complex, has been inherited from the lower animals.

Here, of course, we come into immediate collision with the well-known theory of Darwin as expounded, more especially, in his remarkable work on the Expression of the Emotions. We regret with our author that Darwin did not pass beyond the emotions to the expression of thought by language and to *permanent* expression—physiognomy in addition to pathognomy; the wonder, however, is that he found time to enter upon this field of inquiry as fully as he did. In the obituary notice of Mr. Darwin we gave the three great principles advanced by him to explain in voluntary expressions and gestures, namely, serviceable associated habits, the principle of antithesis, and that of actions due to the constitution of the nervous system, independently of the will. Now permanent expression, in the opinion of Professor Cleland, is not explained by these principles. For example, he maintains that it is not merely in consequence of our desire to be near to what we like, or to avoid what we dislike, that we bend the body towards what pleases us, and

retreat from that which displeases us; such movements are frequently made not to achieve a purpose, still less from an inherited habit based upon their usefulness to human or animal ancestors, but simply, as the author holds, "from the close connection subsisting between movement towards an object and mental attraction to it, or between movement away from an object and a feeling of repulsion" (p. 50). So also with our movement of the arms in receiving or rejecting an object, by calling into play the pectoralis major and the latissimus dorsi. The same gesture is applied when no object is present, in order to express metaphorically a corresponding mental state. In connection with our use of words, again, mataphor, as every one knows, comes largely into play. Emotions find their expression in gestures which are in marked correlation to them.

There are, the author does not deny, certain muscular movements and sounds which do not fall within the explanation afforded by the correlation established between certain physical movements and certain mental actions, such as laughter, crying, and sobbing. Here there is excess of emotion; the centres of the nervous system are deranged. The breathing is convulsive.

The symbolic explanation of the way in which we express our emotions in gestures and our feelings or thoughts by words is nothing new. It has been carefully studied and lucidly illustrated by several writers both in Germany, France, and England, probably by no one so clearly as Gratiolet. We should have been glad if Professor Cleland had occupied less space in repeating what has been already said by these authors, and more in attempting to prove that none of our emotional expressions are derived from the no longer needed actions employed by ancestral savages or by animals before man.

However, Professor Cleland follows, with slight exception, those who have held that the real clue to most of the expressions of the emotions is the correlation of movements and gestures with ideas.

In his chapter on "Vision," Professor Cleland endeavours to show that the evolution of the organs of sense is not the same thing as the evolution of sensation; natural selection does not in his opinion furnish an adequate explanation of the origin of the organ of vision as a structure, and it is urged that the existence of vision and the other senses is an indication that there is a region other than the material world

from which they proceed. The author believes that the idea of vision existed before it formed part of the consciousness of any animals, and recognises in the simpler forms of evolution of sight-organs the early stages of a morphological design, advancing definitely to secure the necessary contact between the external world and animal consciousness, of which the idea before existed. "Is it," he asks, "in accordance with anything that we know of the laws of nature that such contact should be of an arbitrary and purely artificial kind? Consider that while we are without experience of spiritual life, except in connection with the body, it would be credulity to suppose that no spirits exist save those enchained by matter. Suppose them to exist, and suppose them to appreciate the material universe in that intrinsic character which reason and not sense informs us of, namely, as so many centres of force exhibiting space, it is plain that they cannot have vision in the sense in which we have it—a sensation artificially produced through affected nerves. They cannot have any of our senses. But must they necessarily be devoid of the ideas which they represent? Is it necessary to suppose that things which we possess in common with the majority of animals exist nowhere else in the whole universe?"

In Professor Cleland's chapter on "The Physical Relations of Consciousness and the Seat of Sensation," he calls in question the theory of sensation in vogue, too familiar to our readers to need description. He complains of the unfounded assumption made "particularly by medical authors," who speak as if mental impressions were lodged in the brain, imagining that in an act of consciousness the cerebral corpuscles "undergo a change other than that of passing into the impressed condition studied in nerves." He approaches the main question when he insists upon a nervous impression being a physical state of a uniform nature, while a mental impression is the presence of a notion in the mind, whose variety is infinite. And the special point on which he dwells is the inconceivableness of supposing that the sites of irritation over the whole body should be minutely indicated, and the vaguer sense of the positions of internal irritations should be obtained "by differences in the cerebral termini of the impressions conveyed from different parts." He points out the difficulty, on this hypothesis, that there is no way in which a child's mind could ever learn to associate the changes taking place at the

cerebral termini with those occurring at different parts of the surface. Ignorant of the surface of the body at the beginning, consciousness must always remain so. The received doctrine of sensation assumes "that the functional union of the parts of the periphery with different termini in the brain is primordial, and that the surface of the body is minutely represented or repeated by a number of points in the brain, which, however, confusedly massed together, derive their properties from their connections."

Other difficulties are forcibly brought forward by Professor Cleland, and he proposes to escape from them by the theory that consciousness extends from its special seat so far as there is continuity of the impressed condition; that "when any irritation is applied to a nerve extremity, the impression travels as generally supposed, but exists for at least a moment along the whole length of the nerve; and that as soon as there is continuity of the impression from the external surface to the brain, the consciousness is in connection with the nerve, and is directly aware of the irritation of the nerve extremity." Distinct routes of communication between this nerve extremity and brain are, it is maintained, highly improbable.

But we must, to render this proposition clearer, give the author's opinion of the connection between mind and brain, consciousness and the hemispheres. To him nothing in their structure suggests different functions in different regions, for he explains in another way the differences in the cells in different lobes first accurately described by Lockhart Clarke. The corpora striata appear to form one organ with the hemispheres; they may in mammals be damaged by vivisection without either motion or sensation being injured; while in birds slicing them away produces the same effect as slicing away the hemispheres in mammals. Comparative anatomy leads to the conclusion that the hemisphere is a single organ divisible in the first instance into a root-part, which includes the corpus striatum and island of Reil, the remainder being included in the "mantle," which Professor Cleland holds is only a multiplier of the function of the root-part. Combining this view with that already expressed that the hemispherical corpuscles pass into the impressed condition studied in nerves and have no additional active conditions, he concludes that the hemispheres are so connected, functionally, with the mind that "the total amount of mental action at one time is dependent on the total amount

in the hemispheres of that physical state which we call the impressed condition" (p. 102).

Now comes the Professor's central idea—a position certainly not a little startling. As he says, it is in direct opposition to the views which find favour with many physicians of mental disease; he might have gone further, and said all. It may be thus stated. The consciousness which is the concomitant of the brain's impressed condition is always of the same nature, while memory, observation, reason, volition, emotion are of endless variety. *Thus the hemispheres, including the corpora striata, form merely an organ of attention, which may be occupied with these various mental actions, but "the brain can have nothing to do" with the specific nature of what occupies the attention—whether memory, reason, or the other mental states above mentioned.*

This is really the view of cerebral function which lies at the root of the writer's opinions of the several points, including sensation, to which we have referred, and we therefore direct our readers' attention more especially to it, as food for thought and discussion. We are by no means convinced of its truth, and before it is adopted its ingenious author will have to adduce many more facts in its support than he has hitherto done. He could not devote his abilities and the knowledge with which his anatomical and physiological studies have furnished him to a better purpose than carefully working out his theory; he has a wide field before him, and many very serious objections to meet before he can gain success. He does not do himself justice in a small fragmentary work like this, and in endeavouring to compress what he has to say into a very limited space, he sometimes becomes obscure, and is obliged to content himself with answers to the difficulties which present themselves to his theory, which disappoint by their brevity, and perplex by their imperfection. When Professor Cleland again comes before the public in defence of his views, as we sincerely hope he will, we shall expect a detailed and thoroughly worked-out production. To no department could he better devote his life as a physiologist; and if crowned with success, he may rest assured that his name will not be forgotten. His task is arduous, but if truth be on his side, it will become easier and easier as he proceeds.

"*The Relations of Brain to Mind.*"—Since the foregoing was written we have read a Lecture by the same author,

delivered to the Dialectic Society of the University of Glasgow, entitled, "The Relations of Brain to Mind." It is characterised by the same originality of thought as the previous work. In it he says:—

> I find myself forced to a conclusion not hitherto held, namely, that the mind, non-material though it be, is affected by physical change in brain-substance, and that in the initial mental process—to wit, the sensation—the cerebral is the antecedent of the mental change; while in the whole train of mental phenomena succeeding the sensation, the mental changes are the antecedents of the cerebral changes which accompany them. It is not sufficient to say that the mental and physical actions are simultaneous, for in the case of sensation you come to a stage—a transition point—at which the purely physical changes are followed by change both physical and mental; and in the origin of voluntary and emotional actions of the body, there is a point of converse transition at which mental plus physical change is followed by purely physical change. Therefore the question remains, What is the relation of the mental part of the action during the mixed or intervening process to the purely physical actions before and after?

Has then, asks the lecturer, the conservation of energy a larger range at this transition point than the mere material universe? and he sees no escape from answering affirmatively. As at any moment volition can initiate or stop physical operations, and must therefore start the accompanying brain changes, he puts forward what he admits is a startling conclusion, that "a certain minute amount of energy in the production of sensation quits the physical for the psychical world instantaneously to return again in the excitation effected by the sentient mind on the substance of the brain." Thought and physical energy are deemed mutually convertible—a statement not likely long to continue startling to those "who grasp that spirit is the one substratum of everything." Not the least plausible argument employed by Professor Cleland is that mental action is either prior or subsequent to the physical change with which it is associated, however inconceivably short the interval may be. This granted, it follows that "there is an element of mental existence independent of the body, namely, that on which nerve change acts in the case of sensation, and from which that volition comes whose action is linked with the brain." It is in this sphere—not in the potential vibrations laid by in nerve-cells—that latent memories, and much more, it is argued, are stored. The Professor again "strenuously

denies that the cerebral hemispheres are the only parts of the system connected with the mind, and reasserts his belief that to produce sensation consciousness must work in connection with as much of the nervous apparatus as is at any time united to the brain by nerve-channels in the active state."

The purposive actions of pigeons deprived of their cerebral hemispheres, or the decapitated frog, indicate, it is maintained, some remains of consciousness. "It may be left to yourselves to judge whether such things are explained by calling them automatic, or whether that word so used is not rather mere pedantic cant pawned on the world as wisdom." The peculiar function of the hemispheres is asserted to be that in them alone the will can originate action unstimulated by external irritation. The lecturer grants that he is in a minority in the profession in his disbelief "that different mental functions are carried on in connection with different parts of the cerebral hemispheres," and candidly admits the question is a difficult one, and the data as yet insufficient to disprove this fundamental doctrine of the phrenologists. In relation to mental pathology, it may be said that of all the Professor says this is the sum, that as the total amount of mental manifestation at any one moment is limited by the total amount of possible brain action, there is no reason why, if habitually this activity has been occupied exclusively with particular sets of intellectual ideas or impulses, the mind, "so long as it is limited in its gross operations, should not be distraught in ways otherwise totally independent of the brain," that is, we presume, otherwise than by the limit determined by the amount of possible brain action.

Further comment would lead us into a repetition of what we have already said, and we will therefore only add, in conclusion, that we see nothing in this lecture to allow us to acquit Professor Cleland of the duty we have laid upon him of working out the profound and vitally important problem in the solution of which he has so hardily engaged, in a much more definite and exhaustive manner. It is needless to say that, however widely his conclusions may differ from our own, the columns of this Journal will be always open to him. A calm and full consideration of the bearing of the researches of Hitzig and Ferrier upon his theory (researches so hastily dismissed in these pages) would alone form material for an article.

The Factors of the Unsound Mind, with Especial Reference to the Plea of Insanity in Criminal Cases, and the Amendment of the Law. By William A. Guy, M.B., Cantab., F.R.S. 1881.

As a step towards the just conception of the plea of insanity in criminal cases, Dr. Guy commences his book with the study of Illusions. The use he makes of them is this. He who knows right from wrong, whatever may be the condition of his mind in other respects, or the force of his impulses, is considered to be responsible for any act he commits. Illusions, he thinks, help us to understand "the surpassing reality of the brain's own creations, and the tyranny they exercise over men's actions, even in presence of the most perfect knowledge of their true nature and condition." And if so, what shall we say of those illusions of the sense of hearing which assume the form of actual commands to commit murder?

Here no doubt is a factor of an unsound mind, by which we are able to realize the brain's spontaneous creative power to a greater degree than by any other.

Then as to delusions. As there are illusions which cannot be traced to the action of what is called the imagination, so delusions arise without the influence of the imagination or reason in their production. They are, of course, as involuntary as the movements of chorea or epilepsy.

Dreams, again. Dr. Guy's main object in his disquisition on dreams is to trace their analogy to insanity.

Somnambulism, whether spontaneous or artificial, offers a still more striking analogy, and bears directly and practically upon criminal responsibility.

Dr. Guy draws a very good parallel between delirium and insanity.

Other factors of an unsound mind—Incoherent Speech and Convulsive Movements—pass in review.

Under the head of Emotions and the Will, the author approaches more nearly the ultimate design of the book, and he observes that he has made no separate allusion to conscience, though a knowledge of right and wrong is so prominent a test of criminal actions in law courts, because he does not see good reason for treating conscience "otherwise than as one of the group of emotions which answer swiftly and certainly to the objects or thoughts fitted to call them into play; or if differing from them in any particular,

in this, that conscience is maintained in a highly sensitive state by the constant and sustained efforts of the teachers of religion," and *vice versâ*. Hence, doubtless, morbid excess and insanity, as well as beneficial consequences, but we are surprised Dr. Guy should make so strong an assertion as that "religious mania" would be universally recognised as the prevailing form of unsoundness of mind if it were not for the unwillingness of mankind to affix the seal of insanity to any dogmas which many men hold in common.

In treating of the emotions, the author enforces their connection with illusions, &c., and so prepares the reader to accept the doctrines of Pinel and Prichard in respect to "moral insanity," and assumes that if Griesinger is correct in asserting that "the mental affection which at the commencement was only an insanity of the feelings and emotions, becomes also an insanity of the intellect," which is in accordance with Dr. Guy's experience, there must be a stage of moral insanity.*

In the second Part of the book, after classifying mental affections into the undeveloped, the degenerate, and the disordered, the author shows that the facts adduced in the first Part would have led to the inference *a priori* that apparently harmless people would, from time to time, startle the world by mischievous and bloody acts had we not known the annals of insane crime. He adopts and amplifies the opinion that Illusions are epilepsies of the senses, Delusions of the organs of thought, Incoherence of those of speech, and so on with other factors of an unsound mind—Mania and Monomania. A classified *resumé* of cases of insane crime follows, and under the head of impulsive insanity he gives an analysis, based on that made by Dr. Hack Tuke, which is of interest. We quote his words: "I arrive at the somewhat unexpected result that, setting aside 10 cases of chronic homicidal monomania, 35 out of the 100 that remain were cases of destructive impulse without ascertainable motive, or with motives of the most trivial kind, 33 of the impulse coupled with or caused by delusion, 13 of the impulse showing itself in imbeciles, 3 in persons subject to epilepsy, 5 suggested or stimulated by witnessing or reading about trials and executions, 4 under the influence of misdirected religious emotion, and 7 in girls and women due to recurring causes or to partu-

* In a later portion of the work Dr. Guy says, "I would no longer object to the Plea of Insanity being set up in the difficult cases of Moral Insanity and Destructive Mania, the existence of which it is not possible to ignore" (p. 229).

rition. All these are illustrative cases, in some of which the mysterious impulse was confessed with horror and anguish, and resisted with pain and difficulty, in others met by voluntary submission to restraint" (p. 182).

The question of the punishment of the madman is next discussed, and Smollett's well-known dictum canvassed and repudiated. It is aptly remarked that if he, a medical man, writing calmly as an historian of the execution of the mad Earl Ferrers for the murder of his steward, approved of the punishment inflicted by the law, although admitting his insanity, how much more likely is it that newspaper writers should pursue a parallel course in reference to contemporary events of the same character happening in our own day. He thinks Smollett's view "largely prevails at the present moment. . . . . The gallows must expiate alike the crime of the murderer and the misfortune of the maniac." In these cases of insane homicides, the lash equally fails. "Meanwhile," says Dr. Guy, "that great charlatan, known in these days as *Public Opinion*, coolly ignores the failure of his panacea, and shows, by one more example, to what order of practitioners he belongs." Yet the author hastens to make it clear that he does not object to either the gallows or the lash in their proper places. His own experience leads him to regard the latter as the only deterrent to minds of the worst character.* Of the punishment of death, he says that to the madman it has always been more attractive than imprisonment for life, whether in a prison or an asylum, and therefore he does not think justice to society calls for the adoption of Smollett's proposition, although, had it been a question of mercy and not justice, he should have sympathised with, though not assented to it, on the ground that "the very kindest thing we could do to most of them would be to kill them."

Dr. Guy proceeds to submit the question of the proper treatment of the Insane Homicides to the test of figures, which are valuable as facts, whether the inference drawn from them is warranted or not. Thus: *Trials* for murder, on an average 67 per annum, sink to *executions* averaging 11, and even 4 per annum, as happened in 1871. Three times in 70 years (1805-74) the number fell to 5, namely, in 1806, 1838, and 1854. The highest number was 25, once in 1813 and in 1817, but never since. Statistics show that crimes of

* "The incessant outcry against hanging and flogging disgraces the times in which we live" (p. 194).

violence (at home) decrease in times of violence (*i.e.*, war) abroad, as might be expected. In times of peace evil is concentrated within our own island. Bad men "naturally transfer their operations to foreign lands," whose inhabitants enjoy the benefit of their "deeds of violence," or so-called glorious war. In the above chosen seventy years the following figures represent the executions during seven periods of ten years, calculated to the scale of the population of England and Wales:—312, 351, 222, 171, 127, 171, 116.

With the exception of the last number but one, there is a progressive decrease from the maximum (351), the decade comprising the early years of peace down to 116, which is barely one-third of the maximum. During the last decade, the average number of annual executions has been barely 12, or 1 per calendar month, or much less than 1 in 2,000,000 of the population. This happy result supplies us, Dr. Guy holds, with a strong motive to pause before we change the present law, till we have seen what further effect will follow the "great reform" of private executions. Dr. Guy adopts the doctrine of "the greatest good of the greatest number" as the proper ground of State action, although he says "the wrong-doer is not punished as an example." Surely, however, this is not distinct from, but forms a part, and a very important part, of the utilitarian doctrine.

However, Dr. Guy endeavours to prove by figures that the prevalent doctrine of the Bench, that every time a murderer is not executed on the ground of insanity, an "example" is lost, is statistically false. He takes 30 years, during which period five notorious murderers were executed, Bellingham, Thurtell, Corder, Burke, Bishop, and Williams. For the years following these executions these figures and commentary are given:—

> *Increase*, 9, 1, 3. Total, 13. Decrease, 5, 5. Total, 10. The execution of these (five) notorious shedders of blood (for I do not speak of Bellingham as a sane murderer) did not therefore act as a discouragement, but rather otherwise; and it is not a little remarkable that the large increase of 9 executions took place in 1813, the year following the assassination of Mr. Perceval, which must have largely occupied the public mind and greatly excited it. The executions, which numbered 12 in 1862, rose to 25 in 1813, and this is the highest figures which the tables record. Bellingham, on whose behalf the plea of insanity was set up and disallowed, was executed, but with the unlooked-for result of encouraging the very acts which the death punishment is held to discourage.

The obvious teaching of these figures seems to be that executions, at any rate in public, do not deter from crime, and unless it is clearly proved that private executions are more deterrent than penal servitude for life, we should have expected Dr. Guy to disapprove of capital punishment altogether, especially as he holds that "neither to the sane nor to the insane class among our criminals does the prospect of long imprisonment or detention for life in a lunatic asylum offer any attraction or temptation, while to the weak-minded and insane it is a positive fascination."

On analysing the figures relating to the cases of M'Naughten, Townley, Buranelli, and Brixey, Dr. Guy found that "of the four cases, there is not one that does not exhibit, for the year following the trial, figures in direct opposition to the popular theory respecting the victim of insanity." In M'Naughten's case, the trials for murder, which were 85 in the year of the trial and acquittal, fell to 75 in the following year; in Buranelli's case (who was executed) they rose from 57 to 82! Certainly, in the action Guy *v.* Smollett, we have no alternative but to give our verdict in favour of the plaintiff.

Murders reach their highest point during periods of public excitement or anxiety, *e.g.*, cholera, the Indian Mutiny, the cotton famine, parliamentary elections, and exhibitions.

Into Dr. Guy's sensible observations on the test of criminal responsibility, we need not enter. They are in accordance with those always maintained in this Journal and the final judgment of the Lord Chief Justice of England, Alexander Cockburn (probably second to none among those who have adorned the Bench), so far as relates to the test of the knowledge of right and wrong, and the appreciation of the nature and quality of the act. Dr. Guy does not, however, substitute for this test that of the power of controlling certain acts and impulses, but reduces the question to one simply of the *unsoundness of mind* of the culprit about the time when the act was committed or contemplated. Perhaps it would be fairer to Dr. Guy to say that he assumes that any one who is of unsound mind is unable to control himself. We are not sure, however, that this is his contention, or whether he considers that no person of unsound mind should be punished.

Dr. Guy has our full sympathy when he advocates the substitution of skilled witnesses or experts for witnesses brought forward at the pleasure of either side, and when he pleads for the confinement of a larger number of imbeciles addicted to crimes, in order to lessen the number of the latter.

Were we to criticize this book, we should say that but little of the first Part materially strengthens the object which the author has in view, while the second Part is really all that is required for the purpose, and forms a valuable contribution to the subject of "the Plea of Insanity" from one who may justly claim to have "a paramount love of the truth." We are afraid that many readers will be deterred from doing justice to the latter by the length of the preliminary enumeration of the well-known signs of mental disorder.

Fichte. By Robert Anderson, M.A. Blackwood and Sons, Edinburgh and London.

This is one of the series of "Philosophical Classics for English Readers," edited by Professor Knight, LL.D., which we have already had occasion warmly to commend for the manner in which they are prepared. Mr. Anderson has done his work well, and those who wish to acquaint themselves with Fichte and his philosophy in general cannot do better than read this book before proceeding to study him in detail.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *American Retrospect.*

By D. Hack Tuke, F.R.C.P.

The American Journal of Neurology and Psychiatry. Edited by T. A. McBride, M.D. Associate Editors, Landon Carter Gray, M.D., Edward C. Spitzka, M.D. Vol. i., May, 1882.

Does the multiplication of journals in America bearing on neurology and medical psychology indicate the increased study devoted to them, or does it also prove the spread of nervous disorders? The former is certainly shown; the latter we must fear to be also the case, and according to some asylum superintendents in the States, the fact admits of demonstration. Be this, however, as it may, we have to welcome another journal devoted to a branch of medical science, still so obscure and presenting so many difficult problems for solution, that there is no danger of there being too large an amount of study and research expended upon it.

The American journals during the last twelve months are, of course, rich in Guiteau literature.

Among them, the journal of Dr. McBride (vol. i., No. 2) reports a discussion on a paper read before the New York Medico-Legal Society, on "Reasoning Mania," by Dr. Hammond, who holds that Guiteau was insane, but merited the gallows. "Let Guiteau suffer the full legal penalty of his crime, but let him be executed with the distinct understanding that he is a lunatic deserving of punishment." Dr. Hammond believes that there was never a man "whose whole career from childhood to the present day has afforded a more striking example of that form of mental derangement called "reasoning mania." Dr. Hammond does not use the term, however, in the sense of Prichard, or alienists generally in England, for he says, "As to derangement of the intellect, I am quite sure that though the emotions and the will are primarily and chiefly involved, there is more or less aberration of the purely intellectual faculties in every case." Again, Dr. Hammond's test of responsibility is entirely different from that urged by English alienists and by Ray, for he supports the legal test of knowledge of right and wrong, and thinks the charge of Chief Justice Davis, of the New York Supreme Court, in the Coleman case, leaves nothing to be desired. This charge unequivocally maintains that the true test is the knowledge of the difference between right and wrong at the time and in respect of the act which the accused commits.

Dr. Hammond does not, then, believe in the doctrine of moral insanity, and he contends that a man, although he is intellectually and morally insane, must, if he commits a crime, suffer the penalty, so long as he knows it was wrong to do so.

This view will not commend itself to most of our readers.

Dr. Parsons, who opened the discussion on this paper, believed it to be in accord with the opinions of the best men on insanity, but he could not reconcile it with his ideas of justice that it was right to punish the insane like sane criminals. A lawyer, Mr. Yeaman, was, strange to say, more in advance than Dr. Hammond, according to our notions, in regard to the test of criminal responsibility, for he would qualify the right-and-wrong test by asking "Was the condition of the man's mind, will, or self-control, such that the knowledge that he would be punished could not deter him?" He also maintained in opposition to the reader of the paper that experience shows that the mind is not an entity, but may be only partly in darkness—that is to say the subject of partial insanity.

Dr. Spitzka, who said he had made at least one discovery by his attendance at the trial of Guiteau, namely, "that an expert could be compelled to testify by order of a court, to leave his practice, and to travel three hundred miles for a nominal and inadequate fee," observed in regard to Guiteau's insanity that he had carefully examined him, and found him full of delusive conceptions. He came

to the conclusion that "he was born as much of a lunatic as he is now, and there are the profound defects in his mental make-up of the group of lunatics to which he belongs. His family history is tainted." He quotes the superintendent of an asylum, Dr. McFarland, of Illinois, who on one occasion found Guiteau's father to be palpably insane, Guiteau at the same time visiting one of his numerous insane relatives in the doctor's institution—"One cousin died at the Elgin Asylum, another is now living at the Pontiac Asylum, an uncle died in the Bloomingdale institution, and a few days ago I received a letter from a prominent physician in the central part of the State informing me that another uncle whom he had seen had had attacks of maniacal frenzy." In opposition to Dr. Hammond's contention that the execution of Guiteau would deter other lunatics from committing a similar crime, Dr. Spitzka made the following remark:—"Any one who had intelligently followed up the history of the past eight months knew that such lunatics were not intimidated by the prospective fate of Guiteau; rather the contrary. Hardly had Guiteau shot the President, and a thrill of horror agitated the whole land, when McNamara attempted to assassinate Mr. Blaine. Two months later, while the nation stood at the wounded chieftain's bedside, a crazy farmer armed with a shot-gun ascended the steps at the Capital at Albany to shoot Governor Cornell, and at the very moment when Guiteau was arraigned, when the public pulse beat highest in indignation against the assassin, a lunatic with a written commission from heaven in his pocket tried to enter the White House to take the Presidency, and 'remove' the then incumbent, with a loaded revolver found on his person. The matter of punishing Guiteau was no longer one of retribution on a disgusting and repulsive wretch by a great nation as soon as it was recognised that his repulsiveness was the outgrowth of disease" (p. 276). Dr. Beard thought that the execution of Guiteau would be the greatest disgrace that ever befell the United States. Dr. Mann agreed thoroughly with Dr. Spitzka and Dr. Parsons, and regarded Guiteau as labouring under theomania. Dr. Landon Gray, of Brooklyn, agreed with Dr. Hammond, except that he would not have Guiteau executed, but confined in an asylum for life. Dr. Henry agreed with Dr. Hammond altogether. Dr. L. A. Sayre was of the same opinion as Dr. L. Gray.

The President, Mr. Bell, emphasised the fact that Dr. Hammond was forsaking the position advocated by his own profession and going over to the enemy—the lawyer.

During the discussion the cast of Guiteau's head which had been in evidence at the trial was examined by the members, and "the obvious deformity it exhibited was the subject of general comment."

Dr. Hammond in reply admitted that the execution of lunatics was opposed to abstract justice, but "it was not abstract justice we were after."

The same number of the journal contains a paper by Spitzka,

entitled "The Evidences of Insanity discoverable in the brains of criminals and others when mental state has been questioned, with some remarks on Expert Testimony and the Grappotte case."

Dr. Spitzka gives a summary of the results of post-mortems in the insane, and says, "I consider that positive and indisputable evidence of insanity cannot be found in more than 30 p.c. of the insane, that in another 30 p.c. slight changes are found, not differing in character, though perhaps in extent, from what we observe in some sane subjects, while in the remainder there is no visible deviation from the normal standard of any kind. . . . In mania, that likelihood is as 5 : 100. In acute melancholia (strictly limited) leading to suicide, to the murder of the most cherished relatives, and in the most episodial frenzy, to attacks on strangers, it is almost zero. In epileptic insanity it is as 20 : 100. In monomania it is as 5 : 100. In the terminal states it is as 60 : 100. In imbecility and idiocy as 80 : 100. In progressive paresis of the insane it reaches the figure 99+ : 100, and here alone and in insanity with organic diseases, does the autopsy approximate the dignity, from every point of view, of a scientifically positive test" (p. 158).

The author of the paper, after referring to those cases in which the post-mortem test of insanity was applied, observes: "I am acquainted with but one case where the microscopic preparations obtained from the nervous tissues of a deceased person were utilized in evidence during a trial. It is a will case still in litigation in one of the Western States. The specimens were sections taken respectively from the brain-cortex and the spinal cord; they presented the characteristic signs of paretic dementia, and a number of physicians with myself were able to declare that the subject from whose body the specimens had been obtained was suffering from that disease at the time of his death, and must have been insane for years previously."

There was a post-mortem examination in the case of Grappotte, who killed a man in 1876 in Jefferson County. Unquestionable disease of the brain and membranes was found by Deecke, the special pathologist of the Utica Asylum, and as Grappotte had sustained an injury to his head, they were reasonably attributed to it. The proof afforded by them that he was insane at the time he committed the murder was disputed, apart from the interval which had elapsed between the injury and the commission of the act, on the ground that "the seat of the morbid changes in the nerve structure was not in those districts of the brain in which are located the centres of the mental faculties." On the former occasion he was 23, on the latter 58; but then it appeared in evidence that he had displayed symptoms of insanity when he was 36 and 37, again when he was 46, 48, 54, 55, 56. Two years later he committed the crime. In the attack when he was 48, he attempted suicide. For two months before the homicide he had been under treatment for insanity. "He sat with his head drooping, could with difficulty be made to answer

questions, was indifferent to his business, had a haggard look, was sleepless, suffered from pains in his head, stated that his wife was better off without him, that he ought to be arrested and sent to an asylum, could not make up his mind to do anything, alleged having many troubles, but could not state them, worried about his defective education, and wept without cause." His doctor warned the relatives, but he was not placed under care, and committed the crime soon after. He was found guilty of murder on the second degree, and committed suicide in his cell the night following. A physician who had examined him in jail testified that he was labouring under delusions, and that his state bordered on dementia.

If these symptoms be regarded as proofs that he was a lunatic, the conclusion so arrived at need not be affected by a post-mortem examination. All that could be urged in a disputed case would be that with such a pathological condition as was discovered in the brain of Grappotte there would be a predisposition to attacks of insanity from very slight exciting causes. "The skull," says Deecke, "showed a deformed fusion of the occipital bone with the parietal bones in the occipito-parietal suture, apparently produced by a slight dislocation of the bones at some period during life. . . . . On removing calvarium extensive adhesions of the dura mater to the frontal bone were found; also adhesions of the dura mater beneath the occipito-parietal suture and at several insulated places to the temporal bones. Over the first frontal convolutions old adhesions between the dura and the pia mater by fibrous bands . . . the brain substance was of normal consistence. *Microscopic Examination.*—Normal supply of blood vessels in all parts of grey substance, scattered through the tissues, however; especially at the base of the brain there were many residua of degenerated and obliterated artoriales and capillaries. They represented small stems or shrubs with two, three, or more branches, lined by irregularly thickened hyaline walls of a fibrillous structure. Other vessels still in function and filled with blood, especially in the lining layers of the lateral ventricles, exhibited beginnings of the same degeneration. The lining layers of the ventricles exhibited beginnings of the same degeneration. The lining layers of the lateral ventricles, also the third and fourth ventricles, showed an amyloid infiltration. . . . . The nuclei of the pneumogastric and trochlearis were marked by an abnormal pigmentary infiltration of their cells; also the nuclei of the facialis, the trigeminus and the anterior nuclei of the optic thalami, exhibited the same pathological condition, although in a far less degree. No lesions were detected in other parts of the brain."

We have cited the particulars of this case because, as cerebral pathology is every day more and more brought into prominence, appeals are certain to be made to its revelations with increasing frequency, and it is of the utmost importance that carefully made examinations by competent pathologists should be placed on public

record. It must be a grave question how far the condition of the brain after death can with our present limited knowledge determine the propriety of the sentence awarded, unless it be in cases of general paralysis, or in those of traumatic insanity and coarse brain disease. For if the symptoms during life were sufficiently clear to justify a verdict of not guilty on the ground of insanity, the non-discovery of any lesion in the brain or the membranes would not afford a mental physician's opinion of the verdict, though it might have considerable influence with the public. On the other hand, if the symptoms during life had not justified the opinion that the prisoner was insane and irresponsible, the discovery of some disease in some part of even the cerebral cortex would not in itself prove that the accused was irresponsibly insane or insane at all, seeing that persons can be perfectly sane in their actions with some morbid change in the grey substance. But, again, suppose a man steals, and in spite of the strong suspicion of a medical man that he labours under general paralysis, he is punished, and in the course of a short time dies, if in such a case the autopsy were to reveal the usual sign of general paralysis, the evidence would be of great value.

A discussion took place at the Chicago Medical Society last March on a paper by Dr. J. G. Kiernan on "Simulation of Insanity by the Insane." On this important question a considerable amount of evidence was adduced, and warrants the awkwardly expressed conclusion arrived at by the Section on Mental Diseases at the International Medical Congress of 1876. "It is not only not impossible for the insane to simulate insanity for any purpose in any but its gravest forms of profound general mental involvement, but they actually do simulate acts and forms of insanity for which there exists no pathological warrant that we can discover in the real disease afflicting them." Cases are referred to in the discussion on Dr. Kiernan's paper, reported by Nichols, Wray, Workman, Gray (of Utica), Spitzka, Hughes.

Dr. Kiernan also contributes a paper to the "St. Louis Clinical Record," Jan., 1882, on "Insanity from Scarlatina," in which several forms of mental affection are enumerated; and an article to the "Chicago Medical Review," Feb. 1, 1882, on the "Medico-Legal Relations of Epilepsy, a study of the Hayvren-Salter Homicide," the case commented upon in this Journal.

Dr. Seguin in the "Archives of Medicine," for April, 1882, discourses on "The efficient dosage of certain remedies used in the treatment of Nervous Diseases," and insists upon the frequent failure of medicines proper as remedies, because given in insufficient doses. We have no doubt he is perfectly correct, and that so long as physicians are cautious in commencing with moderate doses so as to feel their way, they would do well to push the drug employed to a much greater extent than is usual before deciding that it is inoperative. Of conium there can be no question this holds good, and conium is the first ex-

ample Dr. Seguin adduces. Many cases of insomnia, he says, "with wakefulness in the first part of the night, more especially those with fidgets or physical restlessness, are very much benefited by conium. I usually give 20 minims with 20 grains of bromide of sodium in camphor water, at bedtime, to be repeated if necessary. In some cases (male adults) I give 50 or 60 minims at one dose in the mixture, not to be repeated." Squibb's fluid extract is the preparation employed. In the doses just mentioned, it induces drooping of the upper lids (sometimes diplopia) and paresis of the arms and legs. The dose is not repeated till the effects have passed off, in from 12 to 24 hours.

The same number contains a paper by Dr. J. C. Shaw, of the King's County Insane Asylum, U.S., entitled "A Second Year's Experience with Non-restraint in the Treatment of the Insane," in which he says, "The experience at this asylum has been that with the abolition of restraint, there has been a gradual diminution in the amount of sedatives given both by day and night, and to-day it is very small. It has always been thought that to carry out non-restraint a large number of attendants were required; this has also been proved to be incorrect by the experience of the King's County Asylum, where there is 1 attendant to 15 patients on the average. (England 1 in 12). But one of the most important points in carrying out the system of non-restraint is to find occupation for the patients. This aids very much in keeping them quiet and more contented, tends to turn their attention to a more normal train of thought, and in some cases prevents the rapid approach of complete dementia. One great difficulty with American asylums, and it appears to be the same to some extent in England, is the want of occupation for men in winter, and the difficulty of getting both sexes out of doors in winter. The want of outdoor exercise and recreation causes a restlessness, and makes it much more difficult to get along with them. It is hoped that a solution of this will be found ere long."

Dr. Shaw also contributes two carefully prepared papers on Hyoscyamine to the "Journal of Nervous and Mental Disease," January and April, 1882. In his experiments he employed Merck's preparation.

"The Alienist and Neurologist," for July, 1882, contains an article by Dr. Crothers: "A Case of Trance in Inebriety," which is designed to support a paper entitled, "The Trance State in Inebriety, its Medico-legal Relations," already noticed in this Journal.

Dr. Kerlin, the medical superintendent of the Pennsylvania Institution for Feeble-Minded Children, contributes a paper on the "Epileptic Change, and its appearance among Feeble-Minded Children." Of 300 imbecile children, between the ages of 5 and 16, 66, or 22 per cent., were found to be epileptics; 156, or 52 per cent., had in their antecedents the history of epileptoid diseases, though not now epileptics; while in 78, or 26 per cent., there was neither epilepsy, paralysis, nor chorea. Of these latter 78, 6 were mutes, 9 semi-mute, 15

had imperfect speech, 18 uncertain gait, 9 were deaf, 6 had imperfect vision, 3 were marked hydrocephals, 6 demi-microcephals, 3 had muscular tremors; thus only 15 of the whole 300 were of sound physical health.

The slight causes of the development of an epileptic fit are well known. Thus, the grasping of a pencil, the promise of a carriage drive, an alarm of fire, the distension of the intestine by an enema, and other trivial circumstances have had their share in the production of fits. So also the administration of chloroform in a girl who had not had a convulsion since her infancy. Power of controlling fits is also curiously shown, as when epileptic children prevent themselves having attacks in order to attend the dance-hall or a religious meeting. Dr. Kiernan gives instances of periodical attacks of some special eccentricity taking the place of an epileptic seizure, such as running without a purpose, and muttering some semi-conscious gibberish; downright obstinacy and viciousness, with unnatural eyes and flushed face.

The paper sums up by emphasising the fact that a large proportion of feeble-minded children present a history either of epilepsy or allied neurosis, and that the epileptic change is not necessarily accompanied with convulsions and insensibility, for these may be transformed into emotional automatism, eccentricity of behaviour or morals.

Dr. Draper, who visited our country in 1881, gives in this number an interesting report of his impressions of an asylum, in addition to some of those on the Continent. Dr. Draper, as those who had the pleasure of forming his acquaintance would be prepared to expect, writes in an impartial, sensible way, anxious to pick up whatever is good or new on this side of the Atlantic.

After mentioning the convalescent houses at Witley for Bethlem Hospital, that at Cockenzie for the Royal Edinburgh Asylum, the house at Colwyn Bay for Cheadle, and the practice pursued at Gartnavel of renting houses in the season at the seaside, Dr. Draper observes that these provisions "for the enlargement of our existing facilities for the cure of the recent and the chronic cases, which we have ever with us, so impressed themselves upon my mind as indispensable *desiderata* to the progressive treatment of the insane, that I felt no hesitation in presenting them to the consideration of the trustees of the Vermont Asylum. The members of the board equally and unanimously favoured these additional advantages, and immediately negotiated for and purchased an estate contiguous to the asylum domain, having upon it buildings suitable for the use proposed, and which, with some minor alterations and renovations, will be made available for occupancy in the coming season. Some additional facilities for the exercise of excited patients during the inclement season are also under consideration, and before another winter will probably be provided." (Dr. Draper was struck with the open-air treatment of maniacal patients in England and Scotland.)

"In respect to the management of chronic cases of destructive habits, I think we may also learn something from Great Britain. It appeared to me that greater pains are taken there to provide strong and indestructible clothing for such patients, and to secure it upon them, than with us. While we restrain the use of the hands, or, more properly, the abuse of them, they render destructive efforts futile by the use of more resisting materials for wear. The best material I anywhere saw for the purpose was being made up in the tailor's shop at Lenzie. It is of much finer and softer texture than canvas or duck, very durable, and called moleskin. I was informed it is used as the common clothing of the working people of Scotland.

"With all the good things observed, there were others connected with the management of the British asylums that did not commend themselves to my view. One is the practice, particularly about London, of uniforming the attendants. It unpleasantly suggested the presence of a police officer in every little group or gathering of patients, as if among a party of rioters, to preserve order or to arrest the conspicuous offender; and the black dress and white cap of the female attendants was unpleasantly suggestive of the garb of a nun, and of a religious preparation for the other world, rather than a restoration to this.

"Another practice, already referred to, which did not commend itself to me for adoption, is the indiscriminate indulgence of smoking in the wards, especially in asylums for the paying classes. Smoking I do not regard as a habit so universal as to be equally agreeable to everybody, and to those who do not enjoy it, it is a discomfort and annoyance; hence I conceive it incumbent as well to protect the one class as to indulge the other. And for everything there is a proper time and place."

(This hint is well deserving of consideration.)

"The recognition of the varying requirements of different social grades, as seen in English or Scotch provision, commends itself to one's inherent sense of justice and the external fitness of things, although in opposition to the democratic ideas of our own country."

Dr. Draper dissents from the belief expressed in the review of Dr. Kirkbride's book in this Journal (April, 1881) that "the type of mental disease differs essentially in the two countries," and adds, "My observations impressed me with a difference, and inquiries only confirmed them." Dr. Draper defends the greater proportion of single rooms in the American asylums on the ground that the same individualism which is pointed out in the same number of this Journal as a marked feature of American character runs no less through the inmates of asylums. "It is this in reality which determines our use of single rooms instead of the conjugate day rooms and dormitories."

Dr. Draper is abundantly satisfied that "neither drugs nor mechanical restraint, nor seclusion in lieu of either, is resorted to or needed" (in England) "as it is here; that the disease there being of a

milder type, calls for neither, and that with the same phases of insanity we need neither."

The type of maniacal disease is, Dr. Draper feels convinced, more persistent in America than in England, where he was surprised at so frequently hearing that it subsided in a few days, while "it continues through weeks, months, and even years." We incline to think that the impression Dr. Draper received on this point is a little too strong, and that the rapid subsidence of excitement is not quite so universal as he was led to suppose. In cases of typhomania, which we can hardly doubt are more common across the Atlantic than with us, Dr. Draper is certain that restraint is a great help in averting death from exhaustion. So also in chronic cases of destructive propensities in which special oversight cannot be commanded, he greatly prefers restraint to other means, and he not unnaturally holds it "absurd to suppose that its use in the States would be continued if it were practicable to abandon it."

Whether this is quite so certain as Dr. Draper thinks, in view of the apparent success of non-restraint in some American asylums, need not be discussed here. English opinion may be too dogmatic, and English practice is not infallible; the true way of advancing in the right course is to study the treatment of the insane adopted in other lands by physicians no less able and conscientious than ourselves, in the same liberal but observant spirit which evidently animated Dr. Draper while inspecting the asylums of Britain.

The Report of the Pennsylvania Hospital for the Insane for 1881, by Dr. Kirkbride, commences a new series, the former report having completed 40 years of the institution since it was removed from the parent hospital to buildings erected specially for it, and assumed its present title. There were then 97 patients received from the Pennsylvania Hospital, with an accommodation for 140. There is now accommodation for 500. Since its opening in 1841, 8,480 patients have been admitted, 3,825 cured (45·10 per cent.), 2,044 improved, 1,098 left without material improvement, and 1,115 died, while 398 remained under care. During the preceding 90 years 4,366 were admitted, of whom 1,493 were cured (34·19 per cent.), 913 improved, 995 left unimproved, and 610 died, 246 escaped, 97 were transferred, and 12 remained in the old hospital. The rise in cures during the 40 years as compared with the 90 years will be observed. It should be stated that the original General Hospital was opened in 1752. The eastern wing was opened in 1756, the insane patients being placed on the basement story till 1796, when they were removed to another newly built portion, the west wing. The next change was to what is now the "Department for Females" of the present premises. The "Department for Males" was opened in 1859, both sexes having been provided for previously in the former building. The Hospital has been built without aid from the Treasury, a circumstance which speaks volumes for the public

spirit and benevolent zeal of the State of Penn and the city of brotherly love. It is purely unsectarian, and benefits all classes so far as its income permits.

Dr. Kirkbride observes that the history of the Hospital illustrates the importance of many points besides medical treatment, such as the value of systematic outdoor and indoor exercise and occupation by day and in the evening, a complete system of classification, unnecessary restraint, proper heating and ventilation, and of a responsible undivided medical government. The following testimony is worthy of record:—"To those who hesitate to establish a course of evening occupation, entertainments, and varied amusements as complete as that which has been tested here for so long a period, we can offer as an encouragement for new efforts our perfect success in this institution, the results being of the most satisfactory character, and all accomplished without any difficulty that was not more than compensated by the obvious pleasure given to those for whose gratification they were established."

Appended is an index to the first Forty Reports (1841 to 1880 inclusive), which presents a striking picture of the number of important subjects discussed by the veteran superintendent, to whose sagacity, conscientious discharge of duty, and devotion to the treatment of those placed under his charge the success and renown of this institution are so largely due.

We noticed in the July number Professor Osler's article on the Brains of Criminals, but we desire to supplement our former American Retrospect (Jan., 1882) in which we gave a report of the case of Hayvern, sentenced to death at Montreal for the murder of a warder in the prison, by Dr. Osler's account of his post-mortem examination, &c.:—

"Hayvern, aged 28, was a medium-sized man, of no trade; Irish descent; parents living, and respectable; no insanity, inebriety, or neurotic disease in the family. He had been a hard drinker, and as a child was stated to have had fits. There is no evidence of the recurrence of these in adult life. He was serving a term in the Penitentiary, having been sentenced for highway robbery in 1879. He had previously been in gaol more than 20 times, and may be taken as a good representative of the criminal class. The details of the murder show deliberation, and there was evidence to show that the act was performed during a paroxysm of epileptic mania.

"The skull was somewhat ovoid in shape, dolicho-cephalic; the forehead rather low and retreating. The calvaria was of moderate thickness; no signs of injury, old or recent.

"Brain.—Vessels empty, drained of blood by opening of vessels of neck. Membranes normal; weight of organs, 46½ ozs. Cerebellum completely covered by cerebrum."

Professor Osler gives a minute description of the convolutions, but we have only space for his summary in relation to Benedikt's views of

the atypical character of criminal brains. From this standpoint "Haywern's left cerebral hemisphere was atypical in the following respects:—(*a*) the union of the fissure of Sylvius with the first frontal sulcus; (*b*) the junction of the inter-parietal with the parieto-occipital and with the first temporal; (*c*) the extension of the calcarine fissure into the scissura hippocampi; (*d*) the extension of the calloso-marginal fissure between the gyrus fornicatus and the pre-cuneus; (*e*) the union of the collateral and calcarine fissures; (*f*) the fission of the first frontal convolution into two parts, so that there appear to be four frontal gyri, a condition which Benedikt lays great stress upon as a marked animal similarity to the human brain."

"The American Journal of Insanity" for January-April, 1882, may be called the Guiteau number, and need not be discussed in this place.

We may add to the matter on this subject already mentioned a few of the articles which have come to us. The discussion, no less than the trial, resembles the Alexandrine ending the song,

Which, like a wounded snake, draws its slow length along.

The "American Law Review," February, 1882, containing "The Responsibility of Guiteau," by Dr. Folsom; the "Boston Medical and Surgical Journal," February 18, 1882, containing "The Case of Guiteau" (with portraits), by Dr. Folsom; the same journal, May 18, containing an article on "The Petition for a Stay of Proceedings in the Case of Guiteau."

Dr. Folsom observes:—"Much as we regret to see hanged, even for a murder in which the motive and method were those of the criminal, a man whom we consider insane, and strongly as we are of the opinion that seclusion for life without trial would have been the proper disposition to make of Guiteau, we see that our opinion has not prevailed, and we fail to find any sufficient reason for asking the executive interference to save him from the gallows."

"The United States v. Charles J. Guiteau: Opinion of John P. Gray, M.D." Washington, 1882.

"The Mental Status of Guiteau, the Assassin of President Garfield," by Walter Channing, M.D. Boston (reprint from the "Boston Medical and Surgical Journal," March 30, 1882).

Dr. Channing ends his article with, "It would have been much more to our credit as a country, much more in the interests of humanity and progress towards better things, and what is still more to the point, much more in accordance with a correct interpretation of the evidence in the case, as presented to my mind, if the wretched Guiteau had been consigned as a lunatic to a criminal insane asylum for life rather than sentenced to the gallows as a sane criminal."

The "Chicago Medical Review," December 5, 1881. "The Case of Guiteau," by Dr. Jas. G. Kiernan.

The writer concludes that Guiteau was morally insane, and says:—

"It will be obvious that Guiteau's type of insanity is not exceptional, but is well paralleled in literature."

The "North American Review," January, 1882. "The Moral Responsibility of the Insane"—papers by Drs. Elwell, Beard, Seguin, Jewell and Folsom.

These articles, though not directly discussing Guiteau's insanity are clearly the outcome of the trial.

Dr. Elwell queries whether "the time has not come for arresting"—those dangerous weak-minded people, or the morally insane, who are outside asylums? Nothing of the kind, but "the mania for excusing crime on the ground of moral insanity." The writer speaks of "the alarming state of the question." Our alarm has reference to the non-sequestration of the dangerous characters referred to, and for whom, according to Dr. Guy, capital punishment exerts a singular fascination. (See Review in this number.)

Dr. Beard believes that "possible Guiteaus are everywhere, and are probably increasing; we are to protect ourselves against their violence, not by imitating, but by preventing and restraining them."

Dr. Seguin believes that the criminal insane should be held just as responsible to human punishment, *i.e.*, preventive and educating punishment, as sane criminals. Society must protect itself. Certain classes of insane should be perpetually confined. In delicate cases the question of discharge should not depend upon the superintendent, but a commission of medical men.

From Dr. Jewell's paper it is difficult to give any single extract which expresses his opinion. He admits that the ordinary criteria of responsibility in law courts are easily applied to well-marked cases of insanity. Unfortunately it is just in the difficult cases, where tests are most needed, that they fail. All Dr. Jewell can say is that the proper method of procedure is a careful study of each case on its own merits, and a study of average healthy human beings observed under conditions identical with those under which the criminal act was committed. "No one familiar in experience and thought with insanity, it seems, could hesitate to admit that partial insanity may exist not only in the sense of involving one single mental function or group of functions, but partial also in the sense of degree of aberration in any given direction." Dr. Jewell holds that "the difficulty of the situation is increased rather than diminished by denying the existence of partial insanity," and he believes that "now, as never before, will the American people be brought to think on the difficult and highly practical problems involved in dealing with the insane criminal."

Dr. Folsom's paper does not admit of condensation, but he holds that we are on a secure footing so long as the responsibility of the insane is decided upon the grounds (1) that there must be other evidence of insanity than the crime; (2) that the whole group of symptoms must correspond to definite disease; (3) that the crime

must be a part of the natural history of the disease; and (4) that a reasonable degree of self-control should be exercised according to the capacity for it in each case.

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2. *Retrospect of Mental Philosophy.*

By B. F. C. Costelloe, B.Sc. and M.A., Glasgow.

Disease and Crime.—A Social Problem.

A recent reprint of the works of Dr. Samuel Butler, whose eccentric but brilliant novel "Erewhon" is less remembered than it should be, affords a good occasion for a review of some of the social paradoxes in which that work abounds, amongst which those which most directly interest us will naturally be such as group themselves about the question of the responsibility and the treatment of the criminal classes.

It will be remembered that shortly after the publication of "The Coming Race," there appeared another book whose title was an obvious anagram for "Nowhere," and which purported to describe a strange and hitherto unknown country whose institutions were a satire on our civilization. Even as a tale, the book was not without its merits, but its deeper meanings were far more important than the common herd of circulating library readers could be expected to see. The hero is supposed to start on a kind of commercial-missionary expedition to the unexplored interior of an unnamed colony, and to find himself suddenly in the midst of a people highly civilized in many ways and of extreme physical beauty, by whom he is immediately put in prison for the double offence of possessing an inferior physical organization and a watch. He has the good fortune, however, to be pardoned and sent up to the capital, where, by the favour of the Queen, he is well received and duly instructed in Erewhonian politics and philosophy.

Their cardinal doctrine was, in direct antithesis to our own, that the defects for which men should be punished were not what we call moral ones, but physical. Any one guilty of serious illness was tried by judge and jury and sentenced to any penalty up to the highest known to the law, which was that of imprisonment for life in the hospital for chronic bores. The suggested view is well expressed in the following summarized extract from a judge's sentence upon a man just convicted of a grave offence:—

"Prisoner at the bar, you have been accused of the great crime of labouring under pulmonary consumption, and after an impartial trial before a jury of your countrymen you have been found guilty. It only remains for me to pass such a sentence upon you as shall satisfy the ends of the law. That sentence must be a very severe one. It pains me much to see one who is yet so young, and

whose prospects in life are otherwise so excellent, brought to this distressing condition by a constitution which I can only regard as radically vicious. For yours is no case for compassion. This is not your first offence. You have led a career of crime, and have only profited by the leniency shown you upon past occasions to offend yet more seriously against the laws and institutions of your country. You were convicted of aggravated bronchitis last year; and I find that though you are now only twenty-three years old, you have been imprisoned on no less than fourteen occasions for illnesses of a more or less hateful character; in fact, it is not too much to say that you have spent the greater part of your life in a jail. It is all very well for you to say that you came of unhealthy parents, and had a severe accident in your childhood which permanently undermined your constitution; excuses such as these are the ordinary refuge of a criminal; but they cannot for one moment be listened to by the ear of justice. You are a bad and a dangerous person, and stand branded in the eyes of your fellow-countrymen with one of the most heinous known offences. Whether your being in a consumption is your fault or no, it is a fault in you, and it is my duty to see that against such faults as this the commonwealth shall be protected. You may say that it is your misfortune to be criminal; I answer that it is your crime to be unfortunate. I do not hesitate, therefore, to sentence you to imprisonment with hard labour for the rest of your miserable existence."

Such is the criminal code of Erewhon, and the innuendo is not far to seek. The strange and elaborate address which the convict Fury read, or attempted to read, a few weeks ago, when he was tried and convicted upon his own confession of murder, might well stand beside these bitter judicial dicta. The question is forced upon us, How far is our own code more rational or more just than the Erewhonian? Do we in effect condemn men to the gallows and the treadmill for things that are as truly a misfortune as a phthisitic constitution or a congenital blindness?

The inquiry is a very wide one, but it is necessary that society should face it; and a journal devoted to psychological studies is not an inappropriate place in which to throw out at least a few hints for its consideration. The subject divides practically into three heads. First, what is the meaning and test of juridical responsibility, or *accountability*, as we might more fitly call it? Second, what is the office and the justification, as between society and the convict, of punishments great and small? Third, what are the limits and scope and nature of the influence exercised by antecedent circumstances such as heredity, nurture, education, &c., upon the moral character of all men, and particularly of the so-called criminal class?

It will be best to consider these three topics in the reverse order. As to the effect of circumstance or character it is difficult, of course, to dogmatise. It has been strongly held that all men are born very much alike in possible character, and that their nurses and teachers

differentiate them. But this cannot be true. "Heredity" is a vague name for something which is obviously a great factor in human life. Every drunkard's son is not a drunkard, much less is every great man's son a genius; yet how often do we see traits and propensities most sardonically recurring in the second and third generation. It is as impossible to deny that the fact that one's grandfather swindled or drank makes it statistically more probable that one would, given the proper surroundings, take to swindling or drink oneself, as to deny that insanity or consumption in a family makes it more likely than it would otherwise be that a given man will develop insanity or consumption. What then does such statistical probability imply? Perhaps we may put it most clearly by saying that such a man has inner temptations which go to meet the outward ones, whereas in another the outward devils will find no such allies. The lines are laid and the tracks prepared inside the fortress, or rather into it; and if the assailants once start upon them, there is found at once a formed line of least resistance. Whereas, in the other case, the line has to be furrowed out *de novo*, and it is only after various abortive essays that the direction of least resistance is found and worked out to the end. This view, it seems to us, is perfectly consistent with any reasonable theory of free-will. To say that A. B. is so constituted that vice is less difficult for him than for C. D., is not to say that A. B. is not free to be virtuous all the while. Only it will doubtless need more watchfulness, perhaps more earnestness and resolution. What then, it may be said, is *character?* Is it not that in a man which makes us say he is more likely to will this than that? No doubt; but here again character, if so described, is taken on its statistical side only. Character, in truth, means the whole man, with all the moral content which the experience of a life has put into him. His personality, when it begins, is a form as yet void—a possibility of moral good or ill. The organism through which that personality is to express itself, and to be impressed also, is anything but formless. On the contrary, it has taken up and holds latent numberless aptitudes or habitudes, which are the formulated results of past human lives, and these, in so far, are determinant factors in the filling in of the coming life also. A person whose organism wants the aptitude of speech will never be exactly the same as one who has it. And so doubtless with moral aptitudes likewise. But as against these latent materials, the personal will, the man himself, is an always active and decisive force. Somehow he can say yes or no at any, or rather at every point. By *attention* he can bring certain elements of possible experience into prominent play and throw the rest into the background. So by moral *election*, or willing properly so called, he can reinforce one motive or set of motives by an assent that changes desire into action. Such an assent is an uncaused cause, so far as it goes. A really decisive and strong volition causes that to be which otherwise would never have been. What then is character,

in its relation to this decisive moral will? This is at once the hardest and the most vital question of all. In one sense, doubtless, a man's character is only another name for himself, as he has been completed and realized by the facts and surroundings of his life. "Myself" at the outset of life is little more than a formal possibility of character, if we set aside the physical aptitudes and heritages of the organism. "Myself," after 40 years of the action and interaction of life, is a very different thing. But it is only one half of this change that is accounted for by the fact that the organic frame in which it is set, has taken on or has developed within it hundreds of fixed tendencies, so that numberless things at first almost impossibly hard have become so easy that we do them without thinking. If we reflect what a change has come to us through the influence of habit in such things as reading, writing, music, &c., we can imagine how many things more intimately connected with the moral life must have changed also. Yet we ought to draw a great distinction. "Myself," my *real* self, does, in one sense, change, no doubt; but it is in a sense quite other than that in which the organic machine is changed. I make myself a character, and a bias for good or evil, by my moral acts and elections one after the other. Every election for good makes it easier next time to elect for good; at least it seems to be so, though by what law or in what manner psychology cannot yet pretend to say. But this is a cumulative result of volitions in themselves apart from the organism, whereas the organism itself, apart from our volitions or from moral matters altogether, is creating habitudes every instant of our lives in a hundred different ways at once. In a word, we have an *organic character* as well as a *moral character;* and the two are, no doubt, interrelated just as in every phase of life our minds and bodies must be.

If this be a true analysis of the moral side of life, it follows that sin and crime are not merely diseases. They may become chronic—indeed, they are always tending, like everything else within us, to become so. But at every stage they are the offspring and result of our own free election. We are what we are, because we have chosen to be so, or at least because we have assented to a temptation or a fate from which it was open to us to escape, if not at every point, at least in the beginning. Without saying anything of a supernatural government of the world, or of any spiritual forces other than those we take account of in psychology, it would be therefore just to punish criminals. Society has a right, if not a duty, to affirm the difference between right and wrong, and to affix to it whatever sanctions it profitably can.

This leads us to the second problem above suggested—what justification can or does society plead against the individual when it inflicts an apparent injury upon him by way of punishment for crime? There are and have been many different answers. One is already hinted at. My real self is not an isolated, merely individual entity,

related only by way of exclusion and negative rights to the other members of the universe. Society is a solidarity, not metaphorical but real. My fellow-citizen has part in me, and I in him. "We are members one of another." If so, the State, as the exponent, however imperfect, of this unity, is bound to vindicate the social truths —to prevent murders, injuries, thefts, and libels; to disallow slavery, cruelty to animals, drunkenness, obscenity, &c.; and for these ends to outlaw to some extent the offending member, even to the extreme point of taking his life if it seems expedient. The opposite view of society, which makes it a kind of mechanical resultant of opposing selfishnesses, and therefore sacrifices everything to individualism, can still justify punishment in another way, by the theory that every individual's right to absolute freedom is conditioned by the obligation to respect the freedom of all others. If this condition is broken, the erring freeman must be constrained. But the question still arises, What is or ought to be the *object* of punishment? Is it merely, for the general good, a kind of moral proclamation—a nemesis showing forth to the world how transgression results in mischief and violence in violence? Is it for the benefit of possible evildoers—a warning example and deterrent, an added motive of fear to reinforce their defective consciences? Or is it, lastly, for the benefit of the condemned themselves, that they may be impressed with a sense of their error, may be deterred from repeating it, and may be meanwhile trained by all proper moral medicines into a healthier frame of mind? One or other of these it must be, unless perhaps in those cases where the punishment amounts practically to the sentence passed upon a dangerous lunatic, confinement during the pleasure of the State, only with the sanative element left out. Such cases are different from the rest, for they are not so much a punishment as a precaution. Society eliminates its troublesome elements—to Botany Bay or New California, to a lunatic asylum, a convict prison, or a foreign territory—simply that it may not incur the risk and cost of watching them. Cetewayo was interned in the Cape Colony, not because he did wrong, but because he was thought to be a difficulty. Count Arnim was banished by Bismarck for a like reason. But although less obvious, it is equally true that very many of the long sentences of penal servitude which it is now the practice to pass on criminals previously convicted, imply exactly the same attitude on our own part. "This man has been found stealing three times; we cannot be worried with him any longer; send him away for seven years."

This may be a very cheap and handy arrangement for society; but is it not a little hard upon the thief? The other three theories have all something to say to him. The first says, "You have done wrong, and this is the eternal logic of wrong, that it brings a nemesis." The second says, "You have by your example so far disorganized society; we must make you an example in order to undo that mischief." The third says, "You are in a bad way; at whatever discomfort to you, we

must in charity try to improve you for all our sakes." The last says, with a brutal simplicity, "You are a nuisance; we must get rid of you."

This is no real judicial sentence. It is a declaration of war. And however feeble the criminal class may be, it is doubtful wisdom, even if it were tolerable morality, to outlaw them in such a way. The other theories are not inconsistent with each other. Indeed, all three will perhaps be recognised in the Utopian penal code, if crimes are possible in Utopia. The only difficulty is to determine whether between two possible penalties we should choose the more deterrent or the more curative; and this depends intimately on the solution of the remaining problem we laid down in the beginning—the nature and criterion of criminal accountability. This, however, we must postpone to another time, for it is a subject of independent importance, hitherto, we take leave to say, too little considered either in the theory or the practice of the English law.

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3. *Italian Retrospect.*

By Dr. T. W. McDowall, Morpeth.

Report on Pellagra.

The "Gazzetta del Frenocomio di Reggio" is more than an ordinary asylum report. Besides the usual account of the condition of the asylum, with the necessary statistics for 1881, it contains short notices of public meetings at which the asylum was represented, as at the International Medical Congress in London. But to these we do not desire to direct attention, for there is in this pamphlet some information about pellagra which may interest English readers. This disease seems to be in Italy what general paralysis is in this country, a scourge whose origin is unknown, but which prevails in certain districts, and seems to depend on some unwholesome mode of life. To discover this error in living the Italian physicians have resolved to devote their attention, and though the results cannot as yet be said to be very great, and are, indeed, in some degree problematical, still it is worth while to show what has been done, and the method of work. We English physicians might take a lesson and begin a systematic enquiry into the conditions of general paralytics. Without doubt most valuable results would be obtained.

I.—*Results of Inquiry by the Committee of Directors of the Reggio Lunatic Asylum.*—In 1879 the directors began an inquiry relative to pellagra in the province of Reggio, and forwarded to the Communes a list of questions, with the object of procuring data as to the cause and spread of pellagra in the different districts. The chief questions were:—

1st. The number of insane afflicted with pellagra in the years 1875-9.

2nd. The number of pellagrous persons at the time of inquiry, September, 1879.

3rd. Information respecting the economic, hygienic, and alimentary condition of the various classes of the poor peasantry.

In response to these inquiries the following information was obtained :—

The sufferers from pellagra in the five years 1875-9, amounted to 3,161 ; that is 632 per year. Of the total number, 1,463, that is 292 per year, belong to the district of Guastalla, which has a population of 62,749. That equals 4·6 pellagrous persons per 1,000. The district of Reggio has 177,886 inhabitants, and an annual mean of 339 pellagri—a proportion of 1·9 per 1,000. The mean for the entire province is 2·9 per 1,000. If, however, the proportion be calculated on the agricultural population, which, in the province of Reggio, is reckoned at 95,564 (Govern. statistics), the proportion is 6·6 per 1,000. According to the statistics published in 1880 by the Department of Agriculture and Commerce (pellagra in Italy, 1879), the proportion would be still greater, 9·62. Both sets of figures sufficiently demonstrate that of the 44 provinces infected by pellagra, Reggio is exceeded by 22 (Brescia has 80 per 1,000) and exceeds the other 21 in intensity of this disease.

Of the 3,161 pellagri there have been 202 insane in the five years 1875-9, equal to an annual mean of 40 insane pellagri in the entire province. The percentage of insane pellagri to the total pellagri reckoned by districts is 8·2 for Reggio, which has 139 insane in 1,698 pellagri ; and 4·25 per cent. for Guastalla, which has 62 insane in 1,463. Thus, the pellagri of the district of Reggio, although in proportion numerically less than those of Guastalla, show a larger proportion of insane. This may arise from the fact of many insane pellagri remaining in the hospital of Guastalla, and the smaller proportion of pellagri in general in the district of Reggio compared to Guastalla may be, at least to some extent, only apparent, and due to the fact that whereas in Guastalla every commune is infected by pellagra, in Reggio several are exempt from it, and the city of Reggio is entirely free.

If an attempt be made to estimate the total number of pellagri in the province from 1875-9, from the number of insane pellagri admitted to the asylum (using 4 per cent. as the proportion generally believed to be nearest the truth), it should amount to 5,000 ; or 1,000 per annum—a number considerably above that obtained in response to the questions.

As to social position and occupation, reliable information could be obtained in only 318 cases actually alive at the end of 1879. Of these 272 were " cameranti," 45 labourers, 35 " assicurati," 21 " mezzadri," and 8 small landowners. All were wretchedly poor, and lived in the country. This illness, therefore, especially affects the " cameranti," and is closely associated with poverty. The property of the

8 farmers was really entirely illusionary; their bit of ground was so hampered by mortgages that at the end of the year the interest due and the taxes absorbed the produce of their farm.

The topographic and hygienic conditions of the province, divided into districts, are as follows :—

In the district of Guastalla, which forms the lower portion of the province, and is close to the Po, of 12 Communes, 7 grow rice ; 3 are subject to inundations ; in only 2 are the hygienic-telluric conditions good ; in all the others middling or bad. The dwellings are in the worst possible hygienic condition in 10 Communes, good in 2. In the district of Reggio, of 33 Communes 4 only grow rice, in all the others the ground is drained (dry?), and in these the hygienic-telluric conditions are good. The hygienic condition of the dwellings is bad in 13 Communes, fair in 14, good in 3. The peasantry are described as very poor in 4 Communes, rather poor in 6, and well off in 1 only. The highest wages earned by the cameranti in summer is 1·50 lire, in winter from ·80 c. to one lira only.

In the district of Reggio the peasantry is equally poor.

The chief food of the poorer classes of the province is Indian corn, but it is not exclusively used by the farmers in winter, and still less in summer. But among the cameranti it is exclusively used, or nearly so, during winter, except in six mountain communes (which are free from pellagra), where chestnuts are employed with maize ; from May to September a mixed diet is used.

As to the quality of the Indian corn, it is generally reputed as good or middling, but these terms are too indefinite to be of much service.

Wine is rarely used by the farmers, very rarely by the cameranti, who generally drink small wine (vinello) or frequently only water.

As to the topographical distribution of pellagra in the various communes, there are various discrepancies which make the statistics of little or no value. These discrepancies are so inexplicable and serious that the only conclusion that can be drawn from them is that there are no trustworthy statistics to show the real or relative number of pellagri in the districts to which they refer.

II.—*Committee of Inquiry on Pellagra in the Province of Reggio.* —As the result of considerable agitation, a Commission of Inquiry was appointed "to collect all information tending to prevent and combat this disease in the province, making local excursions for this object, and to study on the spot the best means to cure it on its first appearance."

At the first meeting Prof. Tamburini gave an account of the results obtained by the inquiry undertaken by the Directors of the Asylum (see the preceding), and made various suggestions as to the method to be followed in future inquiries.

The following proposals were adopted :—

1st. That excursions should be made to all parts of the province more or less affected with pellagra, so as to take personal cognisance of the condition of the place and families in regard to food, &c.

2nd. To send through the Prefecture a circular to the medical officers requesting :—

a. An accurate examination of the food in some families of pellagri.

b. The number of pellagri observed in 1881.

c. The registration of all cases of pellagra during 1881.

3rd. That another circular be sent to the Communes requesting the number of deaths from pellagra in the years 1871-80.

4th. That another circular be sent to the Provincial Hospitals requesting information as to the number of pellagri admitted in each year from 1871-80, and the result of each case.

5th. That information be procured as to the grinding of Indian corn in each commune in each year 1871-80, and the prices of provisions for the same time.

6th. That the Committee of Mantua be corresponded with in order to learn which of the precautions and means adopted by them proved most efficacious.

It was afterwards resolved to invite the Rev. Cav. Rinaldo Anelli to lecture in Reggio and other places on his economic co-operative ovens, his system of bread-making, &c. Prof. Tamburini was further invited to give a preliminary lecture, so that the public might understand the vital importance of the subject, and the urgency of employing earnest precautions and preventive measures against pellagra.

These lectures were accordingly delivered to large and interested audiences.

Prof. Tamburini's lecture was necessarily popular, avoiding all technical phrases, &c. He drew a faithful picture of the terrible state of the poor pellagri; briefly told the history of this terrible plague; traced its topographic distribution in the regions of Europe which it has infested; showed by means of statistics its great prevalence in Italy, where no less than 100,000 persons are affected by it. He spoke of the symptoms of pellagra, and of its fatal effects, the principal of these being insanity, suicide, and hereditary degeneracy. Going on to discuss its cause, he showed that experience proved that it affected rural populations only, those whose food was bad and insufficient, and, in Italy, whose food was almost exclusively Indian corn and water, either or both of these being frequently spoiled and unwholesome. It was still a disputed question whether Indian corn as sole article of diet was the cause of pellagra because of its being insufficiently nutritious and limited in quantity, or because when damaged it contains toxic substances. He could not deny the existence of toxic pellagra due to damaged maize, but he thought that, in the majority of cases in Reggio, the disease might be due to insufficient food alone.

The lecture of the Rev. Cav. Rinaldo Anelli gave an account of the difficulties he had experienced in introducing his "co-operative ovens," and the excellent results so far obtained.

In 1873 he started a society for the mutual insurance of cattle. In time he started the oven; and whereas formerly the peasantry ate

stale and badly baked bread, they now have it always new, wholesome, and well prepared, even when they had not means to buy it, for they were allowed it on credit; and whereas formerly the Indian corn or grain which they stored in their own houses became mouldy by reason of damp, they now stored at the oven, where it was kept in good order, and gradually returned in the shape of bread.

Through great economy the "oven" is now self-supporting. The reverend lecturer concluded by stating his conviction that co-operation was the only means of escaping from the wretched condition in which the poorest classes live.

At a subsequent meeting of Committee the secretaries gave an account of their excursions to various Communes. They went, accompanied by the local physicians, to dwellings of the poorest and of those who showed signs of pellagra; they questioned them, examined their mode of living and their food; they examined the maize flour, and took samples for analysis. They thus endeavoured to obtain accurate knowledge of the exact condition of the unfortunate people. They made a short history of each family visited; Dr. Riva collected them into a report, of which the following is a summary:—

1. The food of the poor peasantry varies greatly according to their class, and in each class according to circumstances. Thus, in a family where there are a good many adults able to work, the conditions as to food are generally better, but they are wretched where in a large family only one, the head, can earn wages; and they are still worse where not a single member is sufficiently strong to work for the others. In such cases it is always the one on whom the hardest work falls who becomes afflicted with pellagra. The poorest families subsist, especially in winter, entirely on polenta and water. Those who are a little better off add such other nutritious food as their means will permit.

2. The quantity of Indian corn consumed by the poor, who subsist exclusively on it, is almost always less than their needs; in many families no adult can afford to use, during a great part of the year, more than 500 grammes daily, and very few families can get one kilogramme per person.

3. In 1881 none of the many pellagri visited admitted having eaten damaged maize, but all remembered the terrible winter 1879-80, in which many had been obliged to subsist on nothing else.

4. The plan of keeping the maize in damp, ill-ventilated houses must facilitate its deterioration, yet the visitors never found any decidedly spoiled.

5. The polenta is frequently badly prepared and cooked, with the addition of very little salt, as it is very dear.

6. In the low districts pellagra is frequently associated with scurvy and malarial fevers.

7. The dwellings of the pellagri are generally in the worst possible hygienic condition.

8. The relief afforded by the Communes to the poorest sufferers is totally inadequate.

Prof. Spallanzani adds that on analysis the samples of maize did not show any signs of decomposition, but a diminution of the nutritive qualities, owing to an increase of the fat-producing elements and a decrease of the albuminoid.

As a means of combating the disease, Dr. Sacchi, medical superintendent of the asylum at Mantua, recommended :—

1. Home relief.
2. The early admission of pellagri into general hospitals.
3. The institution of special hospitals (pellagrocomio).

For home relief the province of Mantua had granted 50,000 lira a year, but it has not answered as well as might have been expected. Many pellagri have not sought relief ; others have even refused it, fearing that they might lose what little work they had through their employers learning that they were diseased. Besides, in many families where relief was given, it was not reserved for the sufferers alone, but was applied to the relief of the whole family, so that the genuine pellagri hardly derived any benefit from it.

The second proposal, which is certainly a very good one, is unfortunately limited by the number and size of local hospitals in the rural districts, which are sadly disproportionate to the large number of pellagri.

No special hospital has as yet been erected.

Prof. Balletti's recommendations for the prevention and cure of pellagra are :—

1. The institution of a permanent committee to direct all the preventive work in the province.
2. The institution of committees in the various Communes to aid the central committee.
3. The establishment in the Communes of co-operative ovens, cheap kitchens, and similar institutions for providing cheap, wholesome food, even in times of special poverty.
4. The providing of work, especially during winter.
5. Facilitating the admission of pellagri into hospitals at the very beginning of the disease.
6. The abolition of the salt tax.

Table of questions sent by the Committee to the Medical Officers of the province of Reggio, to be filled up by the pellagrous families, and by any of the poor who have been affected at any time.

Family . . . . .

Residing at . . . . .

1. What is the food of the family ? Exclusively Indian corn, or mixed with other substances ; if so, which ?
2. What is the average daily quantity of Indian corn consumed by each individual in the various seasons, either when used as sole article of diet, or when supplemented by other food ?

3. Whether used exclusively or not, has the Indian corn always been undoubtedly sound, or has it always, often, or occasionally (especially during severe seasons or during scarcity of work) been of inferior quality or really bad? In the last case indicate degree and reason of badness.

4. Does the family buy the corn ready ground or not? In the latter case inquire if the quantity they get ground lasts a short or a long time, and if they keep the flour in a dry or in a damp place where it may easily spoil. In the former case inquire into the state of the corn when bought, and for this reason examine also the sellers.

5. Is the corn cooked daily into polenta, or is it made into cakes and bread to last several days?

6. When the flour is kept some length of time, inquire if it loses its flavour and becomes difficult of digestion.

7. Is pellagra hereditary in this family?

8. Are the members of the family afflicted with pellagra also affected by other diseases, such as scurvy, malaria, or have they been?

9. What are the hygienic conditions of the dwelling, the drinking water, the state of the soil, &c., where the family lives?

10. Do there exist, to the certain knowledge of the medical officer, any individuals who, without any hereditary tendency to pellagra, have yet shown undoubted signs of it without ever having lived on Indian corn damaged in any degree?

11. Do there exist any individuals who, without hereditary tendency to pellagra, and who never, or at least not recently, lived on Indian corn in any form, have yet exhibited signs of it?

According to the latest ministerial statistics, which, however, are not entirely reliable, there has been a great increase of pellagra in the last two years—from 97,855 in 1879 to 104,048 in 1881. This is entirely owing to the enormous increase in the Venetian provinces (from 29,836 to 55,993). In all the other provinces except Liguria there has been a marked reduction. But Dr. Tamburini thinks this extraordinary difference may be due to great inaccuracy. He is able to state as a fact that in Reggio this decrease is not real, for the pellagri admitted to the lunatic asylum during 1879-81 have not diminished. There were 53 admissions in 1879 and 80 in 1881.

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4. *German Retrospect.*

By W. W. Ireland, M.D.

"Tödtung des Dienstherrn im Zustand Krankhafter Bewusstlosigkeit (Friedreich's Blatt für Gerichtliche Medicin," 4 Heft, 1881).

"Todschlag im Affect, Zweifelhafter Geisteszustand (Epilepsie und dadurch bedingte Krankhafte Gemuthsreizbarkeit) des Thäters. Separatabdruck aus der Zeitschrift für Psychiatrie." Band xxxvii., von Professor v Krafft-Ebing in Graz.

"Zur Contraren Sexualempfindung in Klinisch, forensischer Hinsicht. Zeitschrift für Psychiatrie," Band xxxviii., von Professor v Krafft-Ebing.

These three papers, reprints from medical journals, show that there is no abatement in that activity which has given so many valuable contributions to our knowledge of insanity and forensic medicine. In the first two papers on the list Dr. Krafft-Ebing records two perplexing cases where murder was committed in conditions of mental derangement and irritability associated with epilepsy. The first case is so curious that we venture to give a short sketch of it, though it is difficult to preserve the most instructive features with a diminished outline.

St. was a man forty-five years old. He had a small head, and was stated to be subject to fits from infancy, though as he grew up they became unfrequent. He was of low intelligence, spoke little, and only used short and easy words. He had served as a soldier, then worked as a miner, and finally became a day labourer. He had a weak as well as a small head, was subject to vertigo, and was known to be easily affected by a small quantity of liquor. He was sometimes extravagant in his conduct, saw visions of the devil, and a naked woman which seemed to amuse him much. According to his own account he had experienced short attacks of mental disorder for the last fifteen years, sometimes once a year, sometimes oftener. Amongst the delusions to which he had been subject he remembered that it appeared to him he flew round the earth or was in heaven, and had seen God the Father, the Virgin and a little boy who squirted water upon him. He saw shadowy figures, whom he took to be poor souls in purgatory, and heard the voices crying, "Help me." He often prayed for poor souls. Sometimes he was driven to run through thick and thin, over mountain and valley. He thought that a woman, whose feet and white gown he saw, called him to follow her. He never showed any real inclination for the other sex. After these attacks, which lasted above a day, he felt heavy and wearied.

He had been employed on a farm for six weeks, but gave up his service saying that he was ill and wanted to go into the hospital. He complained that his master threatened to strike him. About nine o'clock in the morning he went into a public house and drank about two glasses of schnaps (an inferior kind of spirit used by the poorer classes in place of brandy), and about a tumbler of beer. Three or four hours after he was seen to take a napkin of trifling value from some clothes hung out to dry, which he tied round his waist. A man came and took it from him, striking him several times, when St. fell upon him with a knife. The man took refuge beside a dog chained to a kennel on which St. recoiled, but kept shouting in front of the house. A butcher then came out and struck St. with a lash several times, and then ran away, when St. tried to stab him with the knife. He was thought to be intoxicated, and wandered about the road till

a man driving a cart took him in, when he fell asleep in the cart. About half-past seven o'clock in the evening his master met him walking with a knife in his hand, and tried to take it from him, when the man stabbed him in the left thigh, and walked away slowly across the fields. The wounded man died in about five minutes from hæmorrhage. St. was arrested next morning in a town about eight miles off. He said that he had no recollection of having injured any one the day before. He had awakened in the middle of a field, feeling heavy in the head. He had fallen several times in his way to the town. As it was suspected that he was simulating, St. was sent to the hospital at Graz to be kept under observation. During the year in which he resided there he was not observed to have any epileptic fits, though occasionally morose, confused, and depressed, complaining of vertigo. This was accompanied by pallor of the face and trembling of the head. The medical men who studied his case regarded him as a person who had commenced life with a diseased organism, subject to epileptic fits and periods of mental confusion, during one of which he committed the murder. It was not thought that the spirits which he had drunk were the cause of the peculiar condition, though they might have aggravated it. The quantity taken seemed too small to have kept up a state of intoxication of above ten hours, though it was admitted that he was easily affected with liquor. It seems to have been opined that he had drunk no more liquor since nine in the morning. The people in the public-house noticed that he had a wild look when he entered, but they believed him to be the worse for what he had drunk, though he neither staggered nor was affected in his speech.

The second paper records the case of an Italian who stabbed a comrade in a fit of passion. The question discussed is whether the iracundia morbosa of epilepsy exempts a man, in whole or in part, from the responsibility of a criminal action? To such a question a general answer cannot be given. In the case detailed, Dr. Krafft-Ebing was of opinion that the man's responsibility was much diminished, if not entirely abolished, by the pathological condition accompanying the epilepsy.

Dr. Krafft-Ebing's third paper is a contribution to a subject which has several times been noticed in the German Retrospect. It is affirmed by some writers that there are male human beings who have in all respects the same sexual feelings towards men which ordinary men bear towards women, and that there are also females who fall in love with women. This abnormality of taste is distinguished from the pæderasty and Lesbian passion of the ancients by the indifference of the subject towards the opposite sex as well as his attraction towards his own sex. It is held that these ill-starred persons, to whom the name Urninge has been given, are the victims of an inborn tendency which they cannot alter, and which it is difficult, or perhaps impossible, to resist. It has been gravely proposed that the relations founded upon

this abnormal taste should be sanctioned, or at least tolerated by law. Of seventeen cases thirteen had symptoms of insanity, more or less pronounced, and only one was free from all trace of neurosis.*

PART IV.—NOTES AND NEWS.

REPORT OF THE THIRTY-SEVENTH† ANNUAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Annual Meeting of the Medico-Psychological Association was held on Wednesday, August 2nd, at the Hall of the Faculty of Physicians and Surgeons, Glasgow, Professor Gairdner presiding. The following members and visitors were present:—Drs. J. T. Callcott, J. A. Campbell, T. A. Chapman, Clark, T. S. Clouston, E. Maziere Courtenay, H. C. Gill, J. Tregelles Hingston, C. K. Hitchcock, M. D. Macleod, G. W. Mould, H. Hayes Newington, J. H. Paul, J. A. Philip, H. T. Pringle, H. Rayner, A. Robertson, James Rutherford, G. H. Savage, R. Smith, J. B. Spence, Seip (Penn.), D. Hack Tuke, A. R. Turnbull, A. R. Urquhart, T. Outterson Wood, &c. Dr. Scott Orr, President of the Faculty of Physicians and Surgeons of Glasgow, was also present.

Dr. Hack Tuke, the retiring President, in resigning the chair, said that his duty was of a very simple and agreeable character, although when he used the word agreeable he must confess that it was not without some regret that he vacated the office, for his presidential year had been a very pleasant year to him, bringing him, as it had done, into more direct relations with the officers and with the members generally of the Association. The feeling of regret was, however, mitigated by the knowledge that he would be succeeded by so distinguished a man as Professor Gairdner. He supposed that, like the old Roman consuls, every president desired that his year of office should be signalized by some marked event, and that there should be some achievement during that period. He hoped that his own year of office would be always associated with the meeting of the International Medical Congress in London. That was a time of great interest and importance, and he certainly felt it a great responsibility to be their representative at a time when that meeting was held. There was also, in addition, that which he hoped might prove an achievement during the year. The Committee for the revision of the Statistical Tables had repeatedly met, and whatever they had effected, they certainly had laboured pretty hard to bring those tables to a more satisfactory form. He would say, therefore, that if what he might call the "Revised Version" of the Statistical Tables was agreed to at the present meeting, he should venture to claim that as an achievement which had taken place during his year of office. An old rule of the Association required that the retiring President should introduce the President-elect. He felt that it would be an impertinence for him to introduce any one so well known as Professor Gairdner. All he would say was that the Professor must now pass through the highest stage of evolution, while he himself, passing through that of dissolution must as President vanish from their sight.

Professor Gairdner, in taking the chair, said that he was very conscious that the honour which had been done him was due more to the regard of some of his old pupils among them than to any personal merits of his own, and upon

* Press of matter prevents our resuming here the notice of Goltz's work.

† The Association was established in 1841—forty-one years ago, but the annual meetings have in some instances been omitted.

that ground he should have preferred that Dr. Hack Tuke should have maintained his position until his (Dr. Gairdner's) address had been delivered. He begged to express his thanks for the position they had assigned to him.

Dr. CLOUSTON said that they had been under the presidency of Dr. Hack Tuke for a year, and he was sure that he was expressing the unanimous sentiment of the members present, and of all the members of the Association, in saying that he had been a very worthy president, that he deserved their abundant thanks, and that they now proposed a vote of thanks to him as well as to the other officers of the Association. In relation to Dr. Hack Tuke himself, his kindness to every member of the Association, his extreme attention to the interests of the Association, the value of the address which he delivered to the Association last year in London, and last, but not least, the able way in which Dr. Tuke had acted as their representative at the time of the International Medical Congress, demanded their most hearty approval and their very best thanks. Without, therefore, saying any more, for they all knew Dr. Hack Tuke's merits, he would move that the thanks of the Association should now be accorded to him, and as their time that day was limited, he would associate with Dr. Tuke's name those of the other officers of the Association, the Treasurer, Editors of Journal, Auditors, and Secretaries.

The PRESIDENT said that he had great pleasure in formally conveying to Dr. Hack Tuke and the officers of the Association this expression of the thanks of the Association. He might add that Dr. Tuke had added very materially to the obligation of the profession within the last few days by publishing a very excellent book on "The History of the Insane in the British Isles," which embodied, in one of its chapters, the address which Dr. Tuke had delivered to them last year.

Dr. HACK TUKE begged to thank the Association for this very kind expression of their approval, and for the indulgent consideration with which they had regarded his services. It had certainly been his desire to promote the interests of the Association, and so far as in him lay to maintain its honour; and to find that he had given satisfaction in the attempt to discharge his duties, and had not disappointed their expectations, was a very adequate reward. He could not sit down without expressing the obligations which he owed to the officers of the Association. A French author defined a cretin as "a being badly served by imperfect organs." He thought that the President of this Association might, on the contrary, be defined as a being well served by perfect organs, so long at least as they had so attentive and efficient a secretary as Dr. Rayner, and so genial and effective a treasurer as Dr. Paul.

Dr. Rayner then submitted the minutes of the last annual meeting, which were printed in No. CXIX. of this Journal (October, 1881).

The minutes, having been taken as read, were confirmed.

The next business was the appointment of Officers and Council for the ensuing year.

The PRESIDENT explained the method of voting, and nominated, in accordance with the rules, the three following gentlemen to act as scrutineers, viz., Drs. Hack Tuke, Yellowlees, and Savage.

Dr. YELLOWLEES said that it might be that the little countries were needlessly sensitive, but Scotland did not like to be quite, or almost quite, overlooked; so, as he found that he would be the solitary representative of Scotland on the Council, it was proposed that the name of Dr. Ireland should be substituted for that of one of the English names nominated by the Council. This suggestion had the sympathy and consent of the Council, and it would enable them to have two Scotchmen among its members.

Dr. IRELAND having intimated his willingness to serve on the Council, if elected,

The lists were collected, and the scrutineers having retired to examine

them, subsequently reported that the nominations of the Council (the name of Dr. Ireland having been substituted) had been unanimously supported, whereupon the following gentlemen were declared by the President to be duly elected as

OFFICERS AND OTHER MEMBERS OF THE COUNCIL FOR THE YEAR 1882-83

President-Elect	William Orange, M.D.
Treasurer	John H. Paul, M.D.
Editors of Journal ...	D. Hack Tuke, M.D. G. H. Savage, M.D.
Auditors	E. S. Willett, M.D. J. T. Hingston, M.R.C.S.
Honorary Secretaries	E. M. Courtenay, M.B. For Ireland. J. Rutherford, M.D. For Scotland. H. Rayner, M.D. General Secretary.

NEW MEMBERS OF COUNCIL.

Oscar Woods, M.B., B.A.	H. Hayes Newington, M.R.C.P.Edin.
W. W. Ireland, M.D.Edin.	F. Needham, M.D.

Dr. Hack Tuke said that he had been requested by Dr. Orange, in the event of his being elected as their President-elect, to say how grateful he felt for the honour done him by the Association. He (Dr. Tuke) was sure that he would be authorised by the Association to convey to him in reply their expressions of sympathy in connection with the recent serious attack which had been made upon his life, to tell him how much they all regretted it, and to express to him their earnest hope that he would not permanently suffer (hear, hear). It would be interesting to the members present to hear that he had just received a letter from Dr. Nicolson, of Broadmoor, saying that Dr. Orange was regaining his health, though slowly, and that he had been able to go out of doors.

The President added that he was glad to say that he had received a letter from Dr. Orange himself within the last few days.

The election of ordinary members was then proceeded with. The balloting box having been sent round, and there being no dissentient vote, the list was taken *en masse*, and the following gentlemen were declared to have been duly elected ordinary members, viz. :—

T. J. Compton, M.B., C.M.Aberd., Assistant Medical Officer, Thorpe Asylum, Norwich.

S. Rutherford Macphail, M.D., Assistant Medical Superintendent, Garlands, Carlisle.

R. Jones, M.B.Lond., Assistant Medical Officer, Earlswood.

W. J. Seward, M.D., Medical Superintendent, Colney Hatch, Middlesex.

G. C. Argo, M.B., Assistant Medical Officer, Durham County Asylum.

J. T. Callcott, M.B., Durham County Asylum.

James Finlayson, M.B., 351, Batt Crescent, Glasgow.

James Denniston, M.D., Dunoon.

William Bowes, M.R.C.S.Eng. and L.S.A.Lond., Assistant Medical Officer, Gloucester County Asylum.

F. W. Jeram, L.R.C.P., Brooke House, Upper Clapton.

W. D. Moore, M.D., Assistant Medical Officer, Wilts County Asylum, Devizes.

The next business upon the agenda being the election of Honorary Members,

The name of Dr. Blanche, of Paris, was proposed by Dr. Hack Tuke, who said that Dr. Blanche was distinguished in France as a successful mental

physician, and was the proprietor of a large private asylum in Paris; in fact, he might say that in France to go to Dr. Blanche was synonymous with having become insane (laughter), so well known was Dr. Blanche's name. Another ground for election was that Dr. Blanche was the author of some valuable works, of which he would mention: "Homicides Committed by the Insane"—a useful book for experts; "Insanity—Ought it to be Considered as a Cause for Divorce?" and thirdly, "Some Considerations in regard to the Treatment of the Insane." He begged therefore to propose Dr. Blanche as an Honorary Member.

Dr. RAYNER (in the absence of Dr. Major) proposed Dr. Ingels, of Ghent.

Dr. Blanche and Dr. Ingels were declared by the President to be duly elected to be honorary members of the Association.

The next business being the presentation of the Treasurer's accounts for the past year, Dr. Paul submitted the balance sheet, which will be found on page 441, the same having been duly examined and certified as correct by Dr. Murray Lindsay, in the absence of the Auditors.

Dr. CLOUSTON asked whether the balance in the Treasurer's hands was increasing or decreasing.

Dr. PAUL replied that it was about £5 less, explaining that the unusual expenditure last year was on account of the International Medical Congress; and the accounts as submitted were adopted. He might state that the sale of the Journal had increased.

The next business being the consideration of Reports of Committees, Dr. RAYNER, General Secretary, reported that as regards the Parliamentary Committee, a meeting was held in the early part of the year, it having been considered that some legislation was probable, but when the meeting took place it was found that there was no possibility of legislation during the present session, and it was resolved to take no action in the present year. As regards the Statistical Committee, the report of that Committee, containing the proposed statistical tables, had been printed and circulated among the members of the Association, and the report was now before the meeting for consideration.

Dr. CLOUSTON said that, in moving the adoption of the proposed statistical tables, drawn up by the Committee appointed for the purpose of improving the old tables, he was very well aware that the present meeting was not the place for them to enter into details, or discuss them, table by table. It was quite certain that at an annual meeting of that kind they could not possibly do so. All, therefore, that he had to state was that those tables were, like everything else in this country, the result of a compromise between the views of a great many members of the Association. The Committee could not possibly embody the views of those gentlemen altogether, however valuable they might be, so the proposed tables were discussed in London and Edinburgh on different occasions, and the result of their combined labours, and of the general discussions which took place in regard to those tables, was now before the Association in pamphlet form; therefore, without saying more, he would propose, and he stated it as being, he believed, the general feeling of the members, that they ought to adopt the tables for one year, experimentally, as carefully as they could, and that at the end of the year, the Committee ought to be asked to acquire some more information, after they had all tried and adopted the tables, and that the Committee should accordingly be appointed as a standing Committee for another year, not to propose any more tables, but to be a reference body to receive the reports from the various superintendents as to whether those tables were valuable or not, or workable or not, and whether they ought to be continued in the present form. Meantime those tables were the result of the combined wisdom of the Statistical Committees, and he hoped, therefore, that the meeting would unanimously adopt these tables, and that the superintendents in the Association would at least give them a trial of twelve months in their next annual reports. He might mention that much labour had been be-

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Treasurer's Annual Balance Sheet, 1881-82.

RECEIPTS.	£	s.	d.
To Balance—Cash in Hand	255	9	5
To Subscriptions received	226	16	0
By Secretary for Ireland	33	12	0
By Secretary for Scotland	45	3	0
By Sale of Journal, Messrs. Churchill	118	16	0
By Interest on £205 7s. 10d., 3 per cents. ...	6	0	2
	£685	16	7

EXPENDITURE.	£	s.	d.
By Annual and Quarterly Meetings	34	2	0
By Expenses of Reporting at various Meetings ...	23	9	8
By Editorial Expenses	12	12	0
Printing, publishing, engraving, advertising, expenses, and postage of Journal ...	341	5	3
By Sundry Expenses, Advertisements, &c.	4	9	10
By Treasurer	6	6	0
By Secretary for Ireland	0	11	10
By Secretary for Scotland	8	13	0
By General Secretary	3	12	2
By Balance in Treasurer's hands	250	14	10
	£685	16	7

Examined and found correct,

J. MURRAY LINDSAY, for Auditors,

Hall of Faculty of Physicians and Surgeons, Glasgow.

August 2nd, 1882.

J. H. PAUL,

TREASURER.

stowed upon these tables by their ex-President, Dr. Hack Tuke. He would, therefore, propose that the Association adopt the tables of the Statistical Committee as proposed and now submitted.

Mr. Rooke Ley seconded the motion.

Dr. Hack Tuke said that Dr. Clouston's modesty had prevented him from stating that it was he (Dr. Clouston) who proposed the original Committee in 1876, and it was gratifying that he was so far satisfied with the tables that he could propose them for adoption by the Association. The proposition for the acceptance of the tables came with especial suitability from Dr. Clouston. He (Dr. Hack Tuke), for one, hoped that the tables would be adopted, and that the commentary made in the report of the Statistical Committee would help superintendents of asylums in regard to their preparation, more especially with regard to Table X., the causation table, which was the most open to differences of opinion. For English superintendents it was obvious that it would be a great convenience for them to be preparing the same tables for the Commissioners in Lunacy, and for their own annual reports. This did not apply to the Scotch superintendents, and it was specially stated in the report that if that table was adopted it would be most valuable to have a supplementary one prepared on different lines by Scotch superintendents or others who wished to do so. They did not consider that the table of the Commissioners was perfect, but they found that it was much better to adopt that table *en bloc* and to leave it to superintendents, if they desired, to frame a supplemental table, avoiding the objections to which the Commissioners' tables might be open, and giving a more individual causation table. He had himself tried to carry this out in regard to the statistics of St. Luke's Hospital, and any superintendent would do great service if he would adopt some such plan. The objection made to it was that in large county asylums the number of patients was so large that it was impossible to carry it out. Dr. Major, for instance, said that he thought the tabulation of the combined causes in individual instances was impracticable at Wakefield. He (Dr. Tuke) merely mentioned that as one of the tables to which great objection had been raised. In regard to the other tables he had little to say, but they must remember that, for the first time, they had introduced one which gave the Forms of Mental Disease in patients on admission. When Dr. Clouston proposed the Committee, he said that such was the advance of cerebral pathology that he hoped some of our tables could be improved in accordance with it, but he was sorry to say the Committee found that to attempt to construct any tables based upon our advance in cerebral pathology could not be carried out. The table of the forms of mental disease agreed upon was, he thought, a workable one. It was not absolutely necessary to fill up the sub-classes. The table would be practically complete if any superintendent preferred filling up only the major and omitting the minor or subclasses. Of Table II.*a*, in which he was especially interested, he would remark that if adopted, the reports of asylums would in future show what he considered highly important, the number of *persons* admitted and cured, in contradistinction to *cases*.

Dr. Campbell said that he was as anxious as anybody else to see any advance in their specialty, and he would be quite glad to labour with others in getting up tables. He saw defects in those submitted, and he foresaw that if they introduced them only for one year, probably very few men would make them up for that period. There were several omissions which he should have been glad to see remedied. There was one table of occupations which was most largely set forth, but there was no table showing the physical state on admission, although they were finding physical causes to be more and more the cause of mental disease. It would introduce a great deal of disturbance to introduce the new set of tables only for one year. He did not wish to propose any motion upon the subject, but simply to mention this.

It was then resolved that the Statistical Tables submitted by the Committee

should be adopted for one year, and that the Committee should be continued as a committee of reference, without desiring them to bring up any new tables.

Dr. HACK TUKE, in proposing the alteration in Sect. I., chapter X. of the Rules, according to the notice on the agenda, said that when the rules were revised in 1879, it was thought that it would be an advantage to the incoming President to have some experience of the presidential duties, and that he should accordingly not act as President till the afternoon business came on. It was that feeling which induced the Committee to make the proposition that in future the incoming president should not act till the afternoon, but it was found that it was impossible to carry it out. No president had wished to have himself bisected in this manner. He wished to be the President of the whole day. Therefore the rule had not been carried out, and it seemed to him (Dr. Tuke) that it would be much better to have it repealed than remain a dead letter. He might remind them that the morning meeting was considered as a meeting for private business, and the afternoon meeting for public business. Their present rule was—"The President for the year shall enter on his duties at the commencement of the public business of the Annual Meeting," &c, In place of that he now proposed to substitute "The President for the year shall enter on his duties at the commencement of the Annual Meeting, and shall deliver his Inaugural Address at the beginning of the public business after the adjournment."

Dr. RAYNER seconded the motion, which was declared to be carried.

In accordance with a notice given on the agenda paper, Dr. MURRAY LINDSAY rose to propose a resolution relating to the Superannuation of the Staff of Pauper Asylums. He said that the subject was one of a very practical and important nature, affecting the interests of the officers of asylums to a very large extent. As their time was limited, he would be as brief as possible. So far as he was aware, nothing had really been done during the last three years with regard to the matter. Resolutions were passed upon the subject three years ago, but, with the exception of a meeting held in London in February last, called by Dr. Williams, of Hayward's Heath, nothing had been done. At that meeting (at which unfortunately Dr. Williams was not present) there were two resolutions passed. They were all agreed as to the necessity for placing superannuation on a more satisfactory basis, but there might be differences of opinion with regard to the best mode of giving effect to their wishes. The object of the resolution he had to propose was twofold: first, to create more active interest in the question, and secondly, to give effect in some practical shape to the views of the Association, and he might here say that he had met what had been expressed in more than one quarter—that there should be some special committee of public asylum superintendents to deal with the subject practically. On the present Parliamentary Committee there seemed not to be sufficient representation of public asylums. Out of twelve members there were only three who represented public asylums.

Dr. LINDSAY then read the resolution which he was about to move, viz.:—"That, in the opinion of this meeting, it is advisable to draw the attention of the Government, by deputation and otherwise, to the pressing question of the Superannuation of the Staff of Pauper Asylums, which should be placed on a more certain and more satisfactory basis than at present, and should include the principles embodied in the resolutions passed at the Annual Meeting of the Association held on the 30th July, 1879.

"That the Parliamentary Bills Committee (with power to add to their number for this special purpose) be instructed to consider the best mode of giving effect to these resolutions."

There were two Bills which had been lately before the Government, and he (Dr. Lindsay) thought that they might very fairly be considered by any Committee having charge of this matter. One was a Bill relating to the union officers of Ireland; the other was the Police Superannuation Bill. Both Bills

were very liberally framed, and contained most of the principles which the Association had been advocating. The Police Superannuation Bill contained these five principles, viz.:—(1) Indefeasible right to pension after a certain period of service. (2) Fixed scale of pension. (3) Continuous or broken service. "Approved service" of not less than three years in any district to reckon towards pension. (4) A term of years (not exceeding seven years for a Chief Constable) may be added to the service of chief officer. (5) Service in a lower rank (as "chief or other officer in any police force") to reckon towards pension on promotion to a higher rank as Inspector or Commissioner. These five principles were all contained in the resolutions adopted by the Medico-Psychological Association. There were also (6) Compulsory retirement of "chief officer" at age of 65 years, and (7) Right of appeal to Home Secretary on dismissal or refusal of pension. So that all the principles advocated by the Association were perfectly reasonable, and had been embodied by the Government in their measure.

Dr. RAYNER seconded the motion.

Dr. CLOUSTON said that the members present might not know that in Scotland there was absolutely no provision as to pension whatever. It was a case of justice to Scotland, and he thought that the Association ought to back up the Scotch district men and the Scotch parochial men. He presumed that the Scotch district men would be represented on the Committee.

The PRESIDENT pointed out that the Committee would have power to add to their number.

The motion was carried.

Dr. CAMPBELL said that while they were on the subject of reports of Committees, he thought it advisable that they should have printed in the Journal every year, after the general meeting, the names of the members comprising the different Committees. They might have a Committee such as the Statistical Committee appointed in 1866, and none of them might know who were on that Committee. He would suggest that the Editors should be asked to publish a list every year.

Dr. HACK TUKE said that he saw no objection to this proposal, and it was accordingly agreed that it be an instruction to the Editors to publish the names of Committees as suggested.

Dr. J. MURRAY LINDSAY said that perhaps the members of the Association would like to know the result of the schedules issued in regard to pensions. They had received a reply in all cases, with one exception. In that case the gentleman who had some time ago considered that the Association did not go far enough now gave as his reason that it was premature. The anomalies were very striking. With regard to the amount of pension granted there was no certainty at all. It was in many cases a perfect lottery what a man got. In some asylums the attendants seemed to be very badly used. Officers would get a much larger proportion than attendants who bore a large share of the brunt of the battle, and in some asylums of thirty years' standing there was not a single attendant pensioned. He had not yet had time to summarise the schedules, but when this was done they would show striking anomalies. *

The next business on the agenda was a resolution by Dr. Weatherly in relation to the treatment of the insane in private houses. In Dr. Weatherly's absence, a communication from him was read by the General Secretary, comprising the following proposal:—"That single cases of lunacy in private dwellings should be better supervised."

The PRESIDENT said that without expressing any opinion on this subject he must beg to remind the members that there was no time for discussing any im.

* Owing to the limited time at command, and the unanimity of opinion, there was not much discussion on this motion, but there was a general feeling of obligation to Dr. Lindsay for the perseverance and efficiency with which he has worked at this subject.—[EDS. J. M. S.]

portant matter like this on the present occasion. The only thing which it was possible to be done with it was to refer it to a committee.

Dr. CAMPBELL said that he thought the motion was incomplete.

Dr. IRELAND said that it was impossible to discuss the question at the length at which it ought to be discussed if they were going to pass an opinion on a class of individuals none of whom were present. It would be better to put it off to another general meeting, so that Dr. Weatherly could come to propose his own resolution, and enforce it with any additional arguments he might then have to advance. He begged to move that.

Dr. YELLOWLEES did not think that a vague resolution of that kind should be adopted.

The PRESIDENT observed that Dr. Weatherly's motion did not commit the Association to any principle.

Dr. YELLOWLEES said that might be, but he did not see that the resolution led to anything.

Dr. CLOUSTON said that he thought it was a very serious matter for the Association to approve the principle that all private patients should be better supervised.

Dr. HACK TUKE pointed out that Dr. Weatherly's contention included another point—that of licensing single houses, a very serious question.

The PRESIDENT said that the subject had better be left over *simpliciter* till the next meeting. It had never been seconded.

The subject then dropped.

Mr. MOULD moved that the Annual Meeting next year should be held in London.

Dr. OUTTERSON WOOD seconded the motion, which was carried.

Dr. CAMPBELL asked whether it would suit the members if the meeting were held a very little earlier in the year, say at the end of July instead of the beginning of August. For the future might they hope that it might be at the end of July?

Dr. RAYNER said that it was almost a certainty that the meeting would be held at the end of July.

Dr. RAYNER reported a recommendation of the Council that a prize of £10 10s., and if possible a bronze medal, should be awarded to any assistant medical officer in the United Kingdom for the best original work upon a pathological or clinical subject during the present year.

This recommendation, being duly seconded, was declared to be carried, and it was further resolved that the following should be the adjudicators, viz., the President, the ex-President, and the President elect.

Dr. CLOUSTON suggested that the two editors of the Journal should be among the judges.

The PRESIDENT—If I were an editor of the Journal, I would rather not (laughter).

AFTERNOON MEETING.

Professor GAIRDNER, the President, then read his Address, which is printed at page 321 of this Journal (Original Articles, No. 1).

Dr. HACK TUKE said that he did not rise to discuss the excellent address which they had just listened to, but to perform a duty which he could have wished had been placed in abler hands. He had, however, found since coming to Scotland that the only way of getting on at all comfortably was to obey, and therefore he would proceed to propose a vote of thanks to their President for the able and instructive address he had delivered to them. He might say, in all sincerity, that he could assure Professor Gairdner that he had completely fulfilled one of the objects which the Association had in view in appointing

him as President, and that was to break down the wall which was too often built up between insanity and other forms of disease—a recognition in short of that protest against the divorce between psychology and general medicine to which he had referred. He had very great pleasure in proposing that their cordial thanks be given to Professor Gairdner for his able and comprehensive address.

Mr. MOULD said that he considered it a very great privilege to second the resolution. An abler and more comprehensive and kindly address he had never heard from the presidential chair. The President had begun the address by asking why he had been placed in that position. He had answered that question very well himself. They could not but feel that the having associated with them a man standing in the foremost place in medicine in that country was a great honour, and that in honouring him by putting him in the chair they were honouring themselves. He was always sorry to hear that they were spoken of as alienists. They were nothing of the kind. They might be specialists in the sense that they simply had special opportunities and advantages on the treatment of their patients.

Dr. HACK TUKE then put the motion to the meeting, and it was carried with applause.

The PRESIDENT said that he could only thank them very cordially for the vote of thanks, and tell them that had he not had before his mind the fear of occupying too much of their time, he should have been disposed to have included in his address some remarks on Glasgow and its institutions. He had also hoped that they might have been accompanied in the afternoon by Dr. Scott Orr, the President of the Faculty of Physicians and Surgeons, but although that gentleman was there at the present moment, he would not be able to join them later on. He (the President) had not been able to replace him adequately, but he had taken upon himself to invite a friend, a chaplain, in order to draw closer the bonds between one profession and another.

Dr. SAVAGE said that he felt that before separating the Association would not be doing its duty—and it had endeavoured to do that so far satisfactorily—without tendering their most hearty thanks to the Faculty of Physicians and Surgeons of Glasgow for the reception they had given the Association, and he was sure they would all join with him in tendering their thanks to Dr. Scott Orr as the President of that ancient Corporation. They always felt very kindly towards old corporations such as this, and when they were received by them with such open hands they felt that the Medico-Psychological Association was not an old corporation yet, being only forty-one years of age, but they trusted that as years rolled on they would get over that difficulty, and if in future years they should themselves become a corporation, they hoped they would be able in their turn to assist some developing specialism, or perhaps some association only forty-one years old that might be in the process of development.

Dr. SCOTT ORR said that he was very glad indeed to have had the opportunity of being there that day. It at all times afforded the Faculty the greatest possible pleasure to foster by every means in their power the progress and advancement of medical science, and so far as the west of Scotland was concerned, their doors had always been opened with that object. It was not often that they were favoured with the presence of so many gentlemen from all parts of the country representing a subject in which the Faculty was very greatly and deeply interested. He was glad to think that nowadays much more attention was paid to the education of medical students in that branch of science, and that through the liberality of the medical superintendents the wards were always open for the instruction of medical students. At the Medical Council lately this subject was brought up, and it was represented that more attention should be paid to the subject (applause). He certainly

thought that this might be paid attention to, but at the same time he quite agreed that the curriculum of the student was very much overburdened. He looked back with very great satisfaction upon the training and experience which he had himself received some two years in the Glasgow Lunatic Asylum. It was of the greatest importance to him, and he derived great advantage from it. He had received with great pleasure and satisfaction the very courteous invitation from the Council of the Association to accompany the members on their excursion that afternoon, and he very much regretted that he was unable to accept it. He wished them with all his heart a pleasant excursion, and the Faculty of Physicians and Surgeons would be at all times glad to see them in Glasgow (applause).

Dr. YELLOWLEES said that the Association ought to know that they were indebted to the Faculty not only for the accommodation provided that day, but also for the use of the room for the quarterly meetings of the Scottish branch, so that they ought to convey to the Faculty their double thanks (applause).

The proceedings then terminated.

In the course of the afternoon the members of the Association proceeded for an excursion to Loch Long and Loch Lomond, returning to Glasgow in the evening, after having dined on board the steamer. Among their visitors were the Rev. Charles Strong, and Dr. Seip (U.S.A.).

The following are the names of members on the Parliamentary and Statistical Committees. The Pension Committee will be appointed by the Council or the Parliamentary Committee :—

PARLIAMENTARY COMMITTEE.

Dr. LUSH.
„ ASHE.
„ BUCKNILL.
„ ORANGE.
„ PAUL.
„ SAVAGE.
„ RAYNER.

Dr. PARSEY.
„ LINDSAY.
„ BROWNE.
„ BLANDFORD.
„ MOULD.
„ W. WOOD.
„ HACK TUKE.

STATISTICAL COMMITTEE.

Dr. ROBERTSON.
„ MAJOR.
„ ASHE.
„ BOYD.
„ HAYES NEWINGTON.
„ CLOUSTON.
„ LINDSAY.
„ SIBBALD.
„ CHAPMAN.

Dr. T. W. MCDOWALL.
„ HACK TUKE.
„ BACON.
„ MANLEY.
„ PARSEY.
„ F. A. CAMPBELL.
„ SAVAGE.
„ RAYNER.

(The Report of this Committee, adopted by the Annual Meeting, follows.)

The Statistical Committee of the Medico-Psychological Association recommends the following alterations in, and additions to, the Statistical Tables of the Association :—

TABLE I.

Showing the Admissions, Re-admissions, Discharges and Deaths during the Year ending 31st December, 18 .

	M.	F.	T.	M.	F.	T.
In the Asylum, January 1st, 18 ...						
Cases admitted—						
First admissions						
Not first admissions						
Total Cases admitted during the year ...						
Total cases under care during the year...						
Cases discharged—						
Recovered						
Relieved...						
Not improved						
Died						
Total cases discharged and died during the year						
Remaining in the Asylum 31st Dec., 18						
Average number resident during the year						
*Persons** under care during the year† ...						
Persons admitted „ „ ...						
Persons recovered „ „ ...						
Transferred from other asylums... ...						
„ to „ „						

* Persons, *i.e.*, separate persons in contradistinction to "cases" which may include the same individual more than once.

† Total cases, minus re-admissions of patients discharged during the current year.

TABLE Ia.

Showing the Number of Previous Attacks among those Admitted during the Year 18 , *distinguishing those Attacks that have been treated to Recovery (and Discharge) in this and in other Asylums.*

Number of previous Attacks.	Patients having had previous Attacks.								
	All Attacks.			Attacks followed by Discharge or Recovery from this Asylum.*			Attacks treated to Recovery in any Asylum.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Have had 1 previous Attack									
„ 2 „ Attacks									
„ 3 „ „									
„ 4 „ „									
„ 5 „ „									
„ 6 „ „									
„ 7 „ „									
„ 8 „ „									
„ 9 „ „									
„ 10 „ „									

* The books of the Asylum will enable this column to be filled up accurately, the others must be compiled from the best information obtainable.

TABLE II.

Showing the Admissions, Re-admissions, Discharges and Deaths, from the opening of the Asylum to the 31*st December*, 18 .

	M.	F.	T.	M.	F.	T.
Persons admitted during the period of — years						
Re-admissions						
Total *cases* admitted						
Discharged *cases*—						
Recovered						
Relieved						
Not improved						
Died						
Total *cases* discharged and died since the opening of the asylum ...						
Remaining 31st December, 18						
Average number resident during the — years						
Transferred from other asylums ...						
„ to „ „						

N.B.—If not practicable to obtain these figures from the opening of the asylum, it is hoped that the information will be carried back as far as possible.

TABLE IIA

Showing the Admissions and Recoveries of Persons* *from* *to*
the present date, 31*st December,* 18 .
(years.)

	M.	F.	T.
Persons admitted during the years	*807*	*904*	*1711*
Persons discharged recovered, during the same period, being 34·19 per cent. of *persons* admitted	*293*	*293*	*586*
Of whom were re-admitted relapsed	*50*	*53*	*103*
Recovered persons who have not relapsed	*243*	*240*	*483*
Relapsed persons discharged recovered	*25*	*25*	*50*
Net † recovered persons, being 31·15 per cent. of persons admitted	*268*	*265*	*533*

N.B.—If not practicable to obtain these figures from the opening of the asylum, it is hoped that the information will be carried back as far as possible. In any case the same period must be covered by admitted and recovered persons.

* Persons, *i.e.*, separate persons in contradistinction to *cases* which may include the same individual more than once.
Re-admission applies only to re-admission into this asylum.

† *i.e.*, Recovered persons sane at the present time so far as the asylum statistics show.

The figures given in this table are merely hypothetical.

TABLE III. (UNCHANGED.)

Showing the Admissions, Discharges, and Deaths, with the mean Annual Mortality and proportion of Recoveries per Cent. of the Admissions, for each Year since the opening of the Asylum, , 18 .

YEAR.	ADMITTED.			DISCHARGED.									DIED.			Remaining 31st December in each year.			Average Numbers Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on the average Numbers Resident.		
				Recovered.			Relieved.			Not Improved.																	
	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.
TOTAL ...																											

TABLE IV. (UNCHANGED.)

Showing the History of the Annual Admissions since the Opening of the Asylum, , 18 , with the Discharges and Deaths, and the Numbers of each Year remaining on the 31st December of the Year reported on.

YEAR.	ADMITTED.					OF EACH YEAR'S ADMISSIONS DISCHARGED AND DIED IN 18 .												TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS TO 31ST DECEMBER, 18 .												Remaining of each Year's Admissions, 31st December, 18 .		
	New Cases.		Relapsed Cases.		TOTAL.	Recovered.			Relieved.			Not Improved.			Died.			Recovered.			Relieved.			Not Improved.			Died.					
	Male.	Female.	Male.	Female.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.

SUMMARY OF TOTAL ADMISSIONS.

	Male.	Female.	Both Sexes.
Percentage of Cases Recovered			
,, ,, Relieved			
,, ,, Not Improved			
,, ,, Died			
,, ,, Remaining ...			

TABLE V.

Showing the Causes of Death during the Year 18 , *together with the Ages at Death.*

Cause of Death.	Under 15 Years.			15 and under 20.			20 and under 25.			25 and under 30.			30 and under 35.			35 and under 40.			40 and under 45.			45 and under 50.			50 and under 55.			55 and under 60.			60 and under 65.			65 and under 70.			70 and under 75.			75 and under 80.			80 and under 85.			85 and under 100.			Not known.			Totals.		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
The Committee recommend that the nomenclature of Diseases of the College of Physicians be adhered to, as far as possible.																																																						
Ascertained by *post mortem* examinations in																																																					

TABLE VI.

Showing the Length of Residence in those Discharged Recovered, and in those who have Died, during the Year 18 .

Length of Residence.	Recovered.			Died.		
	M.	F.	T.	M.	F.	T.
Under 1 month						
From 1 to 3 months						
From 3 to 6 months						
From 6 to 9 months						
From 9 to 12 months						
From 1 to 2 years						
From 2 to 3 years						
From 3 to 5 years						
From 5 to 7 years						
From 7 to 10 years						
From 10 to 12 years						
From 12 to 15 years						
From 15 to 20 years						
From 20 to 25 years						
From 25 to 30 years						
From 30 to 35 years						
From 35 to 40 years						
Upwards of 40 years						
Total						

TABLE VII.

Showing the Duration of the Disorder on Admission in the Admissions, Discharges, and Deaths, during the Year 18 .

CLASS.	DURATION OF DISEASE ON ADMISSION IN FIVE CLASSES.											
	THE ADMISSIONS.			THE DISCHARGES.						THE DEATHS.		
				RECOVERED.			REMOVED, RELIEVED, OR OTHERWISE.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
FIRST CLASS. First Attack, and within Three Months on Admission												
SECOND CLASS. First Attack, above Three, and within Twelve Months on Admission ...												
THIRD CLASS. Not First Attack, and within Twelve Months on Admission...												
FOURTH CLASS. First Attack or not, but of more than Twelve Months on Admission ...												
FIFTH CLASS. Congenital												
TOTAL												

TABLE VIII.

Showing in Quinquennial Periods the Ages of those Admitted, Recovered, and Died, during the Year 18 , *and of those remaining on* 31*st December*, 18 .

Ages.	The Admissions.			Recovered.			The Deaths.			Patients Resident 31st December, 18 .		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
From 5 to 10 years												
„ 10 to 15 „												
„ 15 to 20 „												
„ 20 to 25 „												
„ 25 to 30 „												
„ 30 to 35 „												
„ 35 to 40 „												
„ 40 to 45 „												
„ 45 to 50 „												
„ 50 to 55 „												
„ 55 to 60 „												
„ 60 to 65 „												
„ 65 to 70 „												
„ 70 to 75 „												
„ 75 to 80 „												
„ 80 to 85 „												
„ 85 to 90 „												
Unknown												
Total												
Mean Age												

TABLE IX.

Showing the Condition as to Marriage, in the Admissions, Recoveries, and Deaths, during the Year 18 .

	THE ADMISSIONS.			THE RECOVERIES.			THE DEATHS.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Single									
Married									
Widowed									
Unknown									
TOTAL									

Causes of Insanity.	Number of Instances in which each Cause was Assigned. Admissions { M. F. T. No. of Cases.											
	As predisposing cause.*			As exciting cause.			As predisposing or exciting (where these could not be distinguished).			Total.†		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Moral: Domestic trouble (including loss of relatives and friends)												
Adverse circumstances (including business anxieties and pecuniary difficulties) ...												
Mental anxiety and worry (not included under the above two heads), and overwork												
Religious excitement												
Love affairs (including seduction)												
Fright and nervous shock												
Physical: Intemperance in drink												
,, sexual												
Venereal disease												
Self-abuse (sexual)												
Over-exertion												
Sunstroke												
Accident or injury												
Pregnancy												
Parturition and the puerperal state												
Lactation												
Uterine and Ovarian disorders												
Puberty												
Change of life												
Fevers												
Privation and starvation												
Old age												
Other bodily diseases or disorders												
Previous attacks												
Hereditary influences ascertained (direct and collateral)												
Congenital defect ascertained												
Other ascertained causes												
Unknown												

Note.—* With reference to the distinction between "predisposing" and "exciting" causes, it must be understood that no single cause is enumerated as both predisposing and exciting in the case of any individual patient.

† The figures in the Total column represent the entire number of instances in which the several causes (either alone or in combination with others) were stated to have produced the mental disorder. The excess of the aggregate of such causes over the number of patients admitted is owing to combinations of causes.

TABLE XI.

Showing the form of Mental Disorder in the Admissions, Recoveries, and Deaths of the Year 18 , *and of Inmates on* 31*st December*, 18 .

Form of Mental Disorder.	Admissions.			Recoveries.			Deaths.			Remaining in Asylum.		
	Male.	Female.	Total.	Male.	Female.	Total	Male.	Female.	Total.	Male.	Female.	Total.
Congenital or Infantile Mental Deficiency...												
„ *a* with Epilepsy												
„ *β* without Epilepsy												
Epilepsy acquired												
General Paralysis of the Insane												
Mania—												
„ Acute												
„ Chronic												
„ Recurrent												
„ A Potu												
„ Puerperal												
„ Senile												
Melancholia—												
„ Acute												
„ Chronic												
„ Recurrent												
„ Puerperal												
„ Senile...												
Dementia—												
„ Primary												
„ Secondary												
„ Senile												
„ Organic (*i.e.*, from Tumours, Coarse Brain Disease, &c.)												

TABLE XII.

Showing the Station or Occupation of Patients admitted during the Year 18 .

MALES.

Accountants	Brought forward ... ...
Artist	House Painters ... ...
Architect	Horse-keepers and Stablemen ...
At School	Hawkers ... ...
Army Pensioner	Hair-dresser ... ...
Agent	Iceman ... ...
Bakers	Labourers ... ...
Barristers	Lamp-maker ... ...
Blacksmith	Money-taker ... ...
Boot and Shoe-makers	Musician ... ...
Brick-maker	Miner ... ...
Brass Finisher	Oilshop-keeper ... ...
Bookbinder	Paper-maker ... ...
Butcher	Police Pensioner ... ...
Coach-builders	Professors of Languages ...
Clerks	Plasterer ... ...
Coachmen	Porters ... ...
Cork-cutter	Pianoforte Stringer ... ...
Carmen	Surgeon ... ...
Cabinet-maker	Servants ... ...
Carpenters	Stoker ... ...
Compositors	Soldiers ... ...
Cabmen	Silk-weaver ... ...
Chair-maker	Sailor ... ...
Cheesemonger	Sawyer ... ...
Carpet Printer	Tailors ... ...
Drapers	Travellers ... ...
Drover	Waiter ... ...
Engine Fitter	Upholsterer ... ...
Engineers	&c.
Farrier	No Occupation ... ...
Farmers	Not ascertained ... ...
Fireman	
Fishmonger	Total ... ...
Carried forward	

The Occupations mentioned in this Table are merely given as examples.

TABLE XII.—*Continued.*

Showing the Station or Occupation of Patients admitted during the Year 18 .

FEMALES.

Artist	Brought forward ... ...
Boatwoman	Wife of—
Barmaid	Bricklayer's Labourer ... ...
Box-maker	Bricklayer ... ...
Charwomen	Boot-maker... ... ...
Cooks	Brewer's Servant ... ...
Dressmakers	Carman ... ...
Feather Curler	Cabinet-maker ... ...
Governesses	Constable ... ...
Housekeepers	Commercial Traveller ... ...
Ironers	Collector ... ...
Laundry Women	Carpenter ... ...
Lodging-house Keeper	Cook... ... ...
Milliners	Coachman ... ...
Map Colourer	Glazier ... ...
Nurses	Haybinder ... ...
Needlewomen	Labourer ... ...
Prostitute	Metal Polisher ... ...
Servants	Plumber ... ...
Shopwoman	Porter ... ...
Shop-keeper	Publican ... ...
Tailoress	Roadman ... ...
Teacher of Music...	Stone Mason ... ...
Widow of—	Stationer's Assistant ... ...
Carter	Sign Writer ... ...
Cabman	Seedsman ... ...
Valet	Ship's Steward ... ...
Daughter of—	Tailor ... ...
Accountant...	Undertaker... ... ...
Bronze Powder Manufacturer ...	Warehouseman ... ...
Cabinet-maker	&c.
Engine Driver	No Occupation ... ...
Farmer	Not ascertained ... ...
Newsagent	
Wheelwright	Total ... ...
Carried forward	

The Occupations mentioned in this Table are merely given as examples.

REPORT OF COMMITTEE ON THE STATISTICAL TABLES OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Committee appointed in the first instance at the Annual Meeting of 1876, and re-appointed in 1880, to revise the tables of the Association, has repeatedly met for this purpose.

At the last Annual Meeting the Committee proposed certain alterations and additions, but their adoption was postponed for another year, in order that they might be further considered by the members generally.

In Scotland they have been carefully discussed, with the result that various amendments have been proposed.

These amendments have been before the Committee, and they have to a great extent been adopted, and are embodied in the revised tables now presented, and await the sanction of the Annual Meeting.

In the additions which have been made to the original tables, the Committee has endeavoured to avoid entailing any unnecessary labour upon the Superintendents of asylums, but it must be evident that to render tables of this description really valuable, no inconsiderable labour is necessary.

The principal changes introduced into the proposed Tables are as follows:—

Table I. introduces the number of persons as distinguished from cases who have been under care, have been admitted, and have recovered during the year. A statement is also added of the transfers from and to other asylums.

Table Ia. shows the number of Previous Attacks in those admitted during the year, distinguishing those which have ended in recovery.

Table II. adds the transfers from the opening of the asylum, or for as long a period as they can be correctly ascertained. In other respects the table remains the same.

Table IIa. is introduced for the first time to show the number of persons as distinguished from cases, admitted and discharged recovered from the opening of the asylum, or from the year the Superintendent can obtain the desired information, the number of persons recovered and relapsed being followed up to the date of the report. The object of this table is to exhibit, so far as the asylum is concerned, the real results in regard to recovery. In the case of some asylums the record will present a fairly complete history of those who remain cured, in others it will no doubt be only an approximation.

Tables III. and IV. remain unchanged; and here it may be observed that the numeration of the old tables has been retained in accordance with the known wish of some Superintendents, in consequence of the long association of certain numbers with particular tables.

Table V. adds to the previous table the ages at death divided in quinquennial periods. The recommendation to adopt the nomenclature of diseases of the London College of Physicians is in accordance with that of the original tables.

Table VI. only differs from the old table in exhibiting the length of residence in the asylum of those recovered or dead, in periods quinquennially divided after fifteen years' residence.

Table VII. is unchanged, with the exception of the addition of a congenital class, which is in fact already adopted in many asylum reports.

Table VIII. divides the ages of those admitted recovered or who have died, into quinquennial instead of decennial periods, and adds a column for the patients resident in the asylum at the end of the year. The division into quinquennial periods is a return to the intention expressed by the Committee of 1867 when commenting upon the old tables, but this division does not appear to have been adopted. The column for the *removed* and *relieved* has been omitted in this table as involving unnecessary trouble when regarded in relation to age.

Table IX. remains as before, with the exception of the omission of the column for the *removed* and *relieved*.

Table X., the causation table, also omits the column for the removed and relieved as of no practical moment in relation to causes. The Committee has found it impossible to combine in one table the conflicting views entertained as to the best mode of representing the numerical value of causes in the production of insanity. The classification and division of causes adopted by the English Commissioners are recommended by the Committee after much consideration, as, on the whole, the best, and being the most convenient for the Superintendents of asylums in England, inasmuch as they make these returns to the Lunacy Board already. Uniformity in the classification of causes will be promoted by the adoption of this table, although it is not intended to exclude the introduction of any cause not mentioned in the list which it would be of interest to specify.

The Committee thinks that it would be very desirable for those who cannot accept the form of tabulation, to accept at least the series of causes, and to give one cause to each case, *exclusive of heredity and previous attacks.*

The Committee has not given a table separately devoted to hereditary transmission, from a desire not to multiply the number of tables, but the practice of some Superintendents in showing the degree of relationship of those who have been insane in the family is a valuable one, and the Committee would be glad to see it more generally pursued.

The adoption of this table will not prevent Superintendents adding a supplementary table in which the causes, whether predisposing or exciting, are represented in combination, so as to bracket together various causes, as actually happens in the majority of cases, *e.g.*,

1. Intemperance.	2. Losses in business.
1. Ditto.	2. Disappointment in love.
1. Heredity.	2. Grief.

Table XI., an addition to the old tables, attempts to give the forms of mental disorder in those admitted in as practical a manner as possible. It is possible that some Superintendents will prefer not to follow the Sub-Classes, but it is hoped that all will be willing to adopt the primary Classes, and that uniformity of classification will to this extent be attained. The Classes are the same as those in the Lunacy Blue Book, with the addition of Epilepsy and General Paralysis.

In concluding their Report, the Committee would express a hope that the Annual Meeting will be willing to sanction the adoption of these tables, and that the Superintendents of asylums will be disposed to give them at least a fair trial.

Signed on behalf of the Committee,

D. HACK TUKE, *Chairman.*
HENRY RAYNER, *Secretary.*

June 16, 1882.

AFTER-CARE ASSOCIATION.

The Annual Meeting of the Association for the "After-Care of Poor and Friendless Female Convalescents on Leaving Asylums for the Insane" was held on 6th July, at 30, Cavendish Square, by the kind permission of Dr. John Ogle.

There were present, among others, the Earl of Shaftesbury (in the chair), Sir Edward Hulse, Drs. Ogle, Bucknill, D. Hack Tuke, C. Shaw, the Dowager Lady Lyttelton, Mrs. and Miss A. Gladstone, Honble. Mrs. F. Talbot, Mrs. Ogle, Mrs. Andrew Clark, Miss Agnes Cotton, &c.

The Rev. H. HAWKINS, Secretary, read the report and record of last meeting at Dr. Andrew Clark's.

Dr. SHAW, the Treasurer, referred to the need of increased funds in order to render assistance by supplementing outfits of poor convalescents, and also to make the Association better known through advertisements.

Dr. D. HACK TUKE advocated the establishment of a house of call, as a centre for the Society's work, when the amount of funds should justify the expenditure.

The Earl of SHAFTESBURY expressed his opinion that a room for the transaction of business and a secretary for the management of affairs would be required.

Votes of thanks to Dr. Ogle and the Earl of Shaftesbury were proposed by Dr. Edgar Sheppard and Dr. Bucknill. The Earl remarked that it was the 53rd year of his association with lunacy work.

It may be interesting to note that a ladies' "After-Care" *Working Society* has been promoted by one of the members of this Association, with the object of assisting poor female convalescents with gifts of clothing after leaving asylums. Any one interested in either Society may obtain information from Rev. H. Hawkins, Chaplain's House, Colney Hatch, N.

AFTER-CARE LADIES' WORKING SOCIETY

In aid of the Association for the After-Care of Poor and Friendless Female Convalescents on Leaving Asylums for the Insane.

Object.—The object of this Society is to assist poor Female Convalescents after leaving Asylums for the Insane with gifts of clothing, according to the special requirements of each case.

Rules.—1. The working parties to be held on the first Thursday in each month, at 2.30, at a place specified.

N.B. The co-operation of ladies is invited who may prefer to work for the Society at their own houses.

2. The annual subscription to be five shillings.

3. Ladies disposed to assist the Society may become honorary (*i.e.*, non-working) members by payment of the above subscription.

Gifts of dresses, jackets, bonnets, unmade materials (flannel, calico, dress pieces, &c.), will be thankfully received.

Communications on the business of the Society to be addressed and subscriptions paid to Mrs. RICHARDSON, Parkwood House, Whetstone, N.

Assistant Secretary, Miss HAWKINS, Chaplain's House, Colney Hatch, N.

THE GENERAL MEDICAL COUNCIL AND MENTAL DISEASES.

At a meeting of the Council held July 3rd, Dr. Teale proposed "That it is desirable that the subject of mental disease should have serious consideration in any revision of curriculum and examination rules." Dr. Banks seconded the motion. Mr. Turner said he was more than doubtful as to the expediency of calling the attention of the medical authorities by resolutions of the Council

to this or any other subject as a special one. It should be taken for granted that all such subjects came within the scope of the study of medicine, and the good sense and zeal of the examining bodies would lead them to put as much in the examinations as they safely could with reasonable justice to the students. Sir William Gull agreed. It was undesirable to split up the subject too much. Dr. Haughton said there were five medical authorities in Ireland, and not one of them required any training in a hospital for the insane. Mr. Macnamara said there would be great difficulties in some cases in obtaining facilities for the clinical study of mental diseases, and the Council ought to hesitate before making a recommendation which must afterwards be practically disregarded.

On being put to the vote, the motion was lost by 9 to 5.

At a meeting held July 6th, the subject was reconsidered. Dr. Banks moved, and Dr. Haughton seconded, the following resolution:—"That the subject of 'Mental Disease' be added to those of 'Hygiene' and 'Preventive Medicine' in the reference to the medical authorities." This reference was as follows:—"That considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Committee takes note of the suggestion of Dr. Gairdner and Mr. Stokes that these subjects ought to form a more independent part than they do of the examinations of all corporations," to be transmitted to all the medical authorities.

It will thus be seen that, although this does not amount to more than a recommendation of the Medical Council, there is considerable probability that it will pave the way to mental diseases becoming a subject of examination, and therefore taught more systematically and regularly in our schools of medicine.

LUNACY REGULATION AMENDMENT ACT.

In June the Lord Chancellor laid on the table of the House of Lords a Bill for amending the Lunacy Regulation Act. The object of this Bill was to facilitate the visitation of Chancery lunatics. It was read a second time July 10th. In the House of Commons it passed through Committee August 5th, and was read a third time on the 8th. Mr. Warton and Sir H. Holland complained that it proposed to reduce the number of visits to Chancery lunatics from four to two per annum. The former said it was a Bill got up to serve the selfish interests of the Lord Chancellor's visitors. Mr. Hibbert observed that the clauses in the Bill objected to only applied to patients in private houses. Dr. Farquharson said that frequent visits were only needed in the case of lunatics under the charge of attendants. Mr. Leighton and Mr. Whitley hoped there would be an increase in the number of visitors. A compromise was made, and it was agreed that the number of visits should be reduced to three instead of two. Mr. Scott thought it discreditable that the State should make a profit of £6,000 a year out of these lunacy patients.

The House of Lords amended the Commons' amendments, and the clauses of the Act as it received the Royal Assent, are as follows:—

Whereas it is expedient to amend the Lunacy Regulation Acts:

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. This Act may be cited for all purposes as the Lunacy Regulation Amendment Act, 1882.

2. This Act shall be construed as one with the Lunacy Regulation Acts, 1853 (16 and 17 Vict., c. 70) and 1862 (25 and 26 Vict., c. 86), and unless there is something in the subject matter or context repugnant to such construction, the expression "The Lord Chancellor intrusted as aforesaid," and all other expressions having a special or defined meaning in the last-mentioned Acts, or either of them, shall have the same meaning in this Act.

3. Section twelve of the Lunacy Regulation Act, 1862, is hereby amended so as to have effect as if the words "two thousand pounds in value" had been inserted therein instead of the words "one thousand pounds in value," and the words "one hundred pounds per annum" instead of "fifty pounds per annum."*

4. Whereas by section twenty of the Lunacy Regulation Act, 1862, it is enacted that "every lunatic shall be personally visited and seen by one of the said visitors four times at least in every year, and such visits shall be so regulated as that the interval between successive visits to any such lunatic shall in no case exceed four months: Provided always, that lunatics who are resident in licensed houses, asylums, or registered hospitals shall not necessarily be visited by any of the said visitors more than once in the year, unless the Lord Chancellor intrusted as aforesaid shall otherwise direct;" Be it enacted, that the said section shall be construed as if the word "twice" had been inserted therein instead of the words "four times" and as if the words "eight months" had been inserted therein instead of the words "four months," and as if instead of the proviso therein there had been inserted the following words: Provided always, that every lunatic resident in a private house shall, during the two years next following inquisition, be so visited at least four times in every year.

FRENCH MADHOUSES AND THEIR VICTIMS.

Under this heading a sensational article appeared in the "Pall Mall Gazette," Aug. 19th, from the Paris correspondent. It has reference to Jean Mistral, who, for 42 years, has been confined in a private asylum at St. Rémy, in Provence. It is to be regretted that an article calculated to throw suspicion on all French asylums should be widely circulated without any pains being taken to ascertain the truth of the charge made against these institutions. The correspondent has taken his information solely from one source, M. Fournier. Now we have reason to believe that he is an unsafe authority to follow, that he is the cousin of the brother and guardian of M. Mistral, and that being on ill terms with him, he desires to injure him in all ways. He addressed to the Chamber of Deputies a petition in which the "facts" were presented, it is alleged, in a distorted manner. This petition was referred to the Minister of the Interior, who has ordered an inquiry to be made by three physicians, presided over by Dr. Cavelier, Professor of Mental Disorders at Montpellier. It should be stated that the Minister of the Interior has several times had occasion to examine into the affair, but has never found anything.

We cannot find any reference to the affair in any of the French medical papers; in fact, it does not appear to excite any interest in France.

The correspondent of the "Pall Mall" proceeds to give an account of the origin of the French law of 1838 relative to lunacy, and asserts that it was passed to enable the bourgeois King of the French (Louis Philippe) to "sleep quietly." This is so contrary to the actual history of this celebrated Act, that we are not disposed to attach credit to anything else the writer writes. As a matter of fact, it was prepared by M. Ferrus, and was carefully discussed by the two Chambers for two years. It is too bad of an English journal thus to misrepresent this remarkable piece of French lunacy legislation, and so to travesty history as to make the act appear to originate in a personal and pecuniary question. But then it is the vacation, and in the absence of parliamentary reports, the newspapers are thankful for startling statements which many will read but few will care to verify. So the "Pall Mall" vilifies the French asylums, and the "Standard" falls foul on those in England.

* Refers to the power of Lord Chancellor where property of lunatic does not exceed £2,000 or £100 per annum.

RESULTS OF SIXTEEN YEARS' ASYLUM LIFE.

The last Annual Report of the Brookwood Asylum possesses more than ordinary interest from its being the last which the late superintendent, Dr. Brushfield, will issue, and from its containing a brief summary of the principal points connected with the institution during the period he has held office.

Of the 4,155 patients admitted, 1,286, or 31 per cent., have recovered; 653, or 15·7, have been either somewhat relieved (3·4) or not improved; 1,188, or 28·6, have died, leaving 1,028 in the asylum. Of the above admissions 274, or 6·5 per cent., were readmissions. In England and Wales the readmissions bore a proportion of 12·47 per cent. according to a recent Report of the Commissioners. Of the deaths 36·1 per cent. were due to general paralysis. In late years the proportion of cases of this disease among the men has decreased, while it has increased among the women. Reckoned on the admissions, 9 per cent. died of general paralysis. There were only two cases of suicide.

The importance of the steady increase in the number of aged patients is well brought out in some of the figures given by Dr. Brushfield. Their bearing on recoveries and deaths is clearly shown. Of 1,028 inmates on Jan. 1st, 1882, 681 were below 50 years of age, and 347 above, the greater proportion being among the females. The number of aged patients at the end of 1881 presented a marked increase over those recorded in previous years. Thus:—

	Total number of inmates.	Aged 50 and upwards.		
Dec. 31, 1869	620	173	= 1 in 3·58 or 27·90 p.c.	Of the total inmates.
,, 1876	957	282	= 1 in 3·39 or 29·46 ,,	
,, 1881	1028	347	= 1 in 2·96 or 33·75 ,,	

The next figures show how the deaths and recoveries of the past year are affected by the age of the patients.

1881.	Total number aged 50 and upwards.			
Admissions	244	51	= 1 in 4·7 cases or 20·9	Per cent. of the total number.
Recoveries	113	14	= 1 in 8·0 ,, 12·3	
Deaths	88	41	= 4 in 2·1 ,, 46·5	

The only other points to which we shall refer are those of mechanical restraint and seclusion, on which Dr. Brushfield thus writes:—

"As a pupil and follower of the late Dr. Conolly in carrying out the non-restraint system of treatment, I have never in my life ordered or sanctioned mechanical restraint of any kind, not but what I have met with occasional instances that might have benefited by such treatment, but the risk of abuse was so great that it led me to discountenance it. It is not a little singular that in my last year of official life, by a kind of irony of fate, I have had to record an instance which has been already alluded to earlier in this Report. Seclusion by locking up a patient in a room has not been practised in the asylum since the year 1871. Instances came under my notice which induced me to believe that the practice led to some of the worst cases being neglected. I determined to disuse it if I could, and I have never regretted its abandonment."

Correspondence.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—In your last quarterly issue certain observations are to be found at page 112 which, as Senior Inspector and Commissioner of Control of Lunatic Asylums in Ireland, I deem it expedient to notice; they have reference to a statement published by the resident medical superintendent of the Richmond District Asylum in his report of 1880. I quite agree in opinion with the reviewer who, in his Psychological Retrospect, suggests that "It would be well if, in his next report, Dr. Lalor explained the reason of the Inspector's

omitting to *visit* the Richmond Asylum, as, to persons non-resident in Ireland, such a state of affairs appears inexplicable." As the gentleman referred to has declined, or perhaps more correctly speaking, has been unable to do so, I trust that a simple recital of facts conveyed through the medium of your largely circulated periodical will afford ample proof " for the satisfaction of the public conscience that *all* Irish asylums are inspected by the proper officials." I quote as follows from a document supplied me by the Secretary at the Richmond Asylum in answer to these specific questions. 1. Names of governors attending meetings (21) with an average of eight members at each :—Sir John Barrington, D.L., Burton Brabazon, J.P., Col. Cunningham, D.L., Alderman Campbell, D.L., Major Ellis, Sir George Hodson, Ion Frant Hamilton, M.P., H. Hamilton, D.L., Sir James Mackey, D.L., The Lord Mayor of Dublin, E. Kinahan, D.L., The Earl of Meath, Richard Martin, D.L., Sir George Owens, Sir John Toulayne, C.B., Viscount Vowerscomb, H. Verdon, Esq. 2. Dates of meetings, 1880, attended by Dr. Nugent, Commissioner of Control, &c., &c. February 1, March 16, April 27, May 18, July 6, August 24, September 21, October 19, November 23, December 17. 3. Visits made by Dr. Nugent in 1880, either with one or more governors or officers of the staff. January 22, February 4, March 2, April 2, June 6, July 19, September 12, November 2.

Independent of the above, I find my colleague inspected the house on four occasions. I am thus particular in giving names and dates so as to obviate all possible misconception when matters of fact are in question, or erroneous inferences deducible. Of my frequent attendance at monthly meetings, whereby the advantage was afforded of a personal communication with gentlemen of position, alike desirous as the Inspectors for the well-being of the institution, Dr. Lalor must have been aware, for although the benefit of his presence at their deliberations had been declined by a resolution of the governors three years ago, and more than once repeated since then, he could not have failed to see me when " called on to read his reports and to afford such information as might be required of him." It is incumbent on me, however, to state that the exceptional course just adverted to was proposed without the knowledge of the Inspectors, and adopted without their concurrence.

Before closing this communication on a very unpleasant subject, I cannot but express a deep regret at the occasion which unavoidably forced it on me. As one of the heads of an important department, I cannot recognise any right on the part of subordinates to criticise before the public the conduct of their official superiors. If there be a dereliction of duty by the latter, a proper tribunal is available in the Executive; the Inspectors have in every mode at their disposal, pecuniary and other, sought at all times to raise the character of Irish asylums by extending the sphere of their utility, while in their Parliamentary reports, they never fail to bestow on their respective staffs the full credit of their successful operation, and as regards more immediately the medical officers attached to them, they *have consistently upheld their social status and legitimate independence as educated members of their own profession.*

I am, gentlemen,

Your obedient servant,

J. NUGENT.

Rutland Green, Dublin, 12th June, 1882.

A CASE OF ENDARTERITIS WITH INSANITY AND APHASIA.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—I beg to offer the suggestion that the case recorded by Dr. Mitchell in " Clinical Notes and Cases," in the last number of the Journal, and provisionally named by the above title, was an example of " Multiple Cerebro-Spinal Sclerosis" of Hammond (Charcot's " Sclèrose en plaques disseminées ").

The symptoms during life, as described by Dr. Mitchell, and the result of the histological examination, both accord completely, in my opinion, with this suggestion.

I am, &c.,

A. HARRISON THOMAS, M.B.

Ayrshire District Asylum, 20th July, 1882.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—It is with extreme reluctance that I trespass on your space, and ask you to insert the following letter in your next issue of the Journal (the only organ of publication touching on the transactions of public asylums), but inasmuch as a charge of unsatisfactory management has been made against me in the last report of the Committee of the Somerset and Bath Lunatic Asylum as an excuse for dismissal, I write in self-defence to give it a public contradiction.

To be as brief as possible, I will narrate the circumstances. On June 9th, 1881, I received an intimation from the Committee of Visitors of the Somerset and Bath Lunatic Asylum that, in three months' time from that date, they would dispense with my services as Medical Superintendent and Medical Officer of that asylum, a position to which I was appointed in July, 1868, after having been Assistant Medical Officer there for eight years previously. On March 25th, 1881, I had been requested by the Committee to resign, but refused to do so, no reason being furnished to me, and no complaint being made against me justifying such a request. I asked the Committee to give me a distinct and specific statement in writing of the reasons why they asked me to resign, and were dissatisfied with my conduct. They declined to do so, and I was dismissed from a post which I had occupied for thirteen years, in utter ignorance of any adequate and justifiable grounds for the course which the Committee thought fit to take.

On seeking legal advice as to my position, I was informed that I had no redress before a judicial tribunal, the Committee, under the fifty-fifth section of the Lunacy Act, 1853 (16 and 17 Vict., c. 97), having an *absolute discretion* as to the retention or discharge of their medical officers. This enactment is not construed according to the general and righteous spirit of the law, which requires that the party to be affected by a judgment of any tribunal shall have an opportunity of defending himself; but a *discretionary power to remove* being given to the Committee, they may exercise it without notice and without any statement of the grounds of removal.

To come now, however, to the charge of unsatisfactory management made against me by the Committee let me give extracts from their reports to Quarter Sessions.

In 1881, Jan. 4th, they report, "During the past year the health of the inmates has been good, and the medical treatment, as well for the prevention of disease as for the cure and relief of it, *has been satisfactory, as also the conduct of the officers and servants of the asylum.*

In 1881, March 25th, the Committee asked me to resign.

In 1881, June 28th, the Committee report to Quarter Sessions, "Early in this year a prevalent feeling in the Committee was shown to exist of *dissatisfaction with the general management of the asylum and of the officers and attendants in it by Dr. Medlicott, and it was plain that a change must be made.*"

With regard, then, to this charge of unsatisfactory management of the asylum, its officers and attendants, I beg to state in reply, it is untrue, and I deny that there was any cause for this alleged feeling of dissatisfaction on the part of the Committee, because the asylum was never in better working order. It is simply preposterous on their part to try and throw dust in the eyes of the public by giving the above-named charges as their reason for asking me to resign. Where, I ask, was it plain that a change had to be made in the interval alluded to (from January to March), and if so plain, why could not the Com-

mittee have given me, when I asked them a distinct and specific statement of the reasons why they were dissatisfied with my management, so that a thorough investigation could have been made? They must have known that their charge could have been easily disproved, and doubtless that was the cause of their refusal to accede to my request. Is it reasonable, I ask, to suppose that my management of the asylum, its officers and attendants, could have become so unsatisfactory in the short space of two months as to necessitate the course taken by the Committee after years of satisfactory management, as testified in their annual reports? I content myself with simply stating that the charge made against me was false, and private animus can only account for their unscrupulous behaviour towards me.

I have but little more to say on the subject, but may add had anything occurred which would not bear the strictest investigation, I should certainly in my own interest have acceded to the wish of the Committee and tendered my resignation, but I was fearlessly doing my duty, and therefore declined to resign. I may casually mention that my two assistant medical officers had been with me between two and three years, and most heartily co-operated with me in every way in my aim for the welfare and comfort of the patients and the prosperous administration of the asylum.

The Committee add in their report (presented to Quarter Sessions, 1882, January 3rd), "They have been engaged in carefully considering the state of the asylum, and have made a great many minor changes, which it is hoped will improve the discipline of the establishment, promote the comfort of the patients, and secure improved economy of management."

Now, as regards "*economy of management*," I may observe that as a part of general management I have always considered the financial not the least important, so much so indeed that I introduced the experiment of abolishing beer as an article of ordinary diet for the patients, thus saving the asylum about seven hundred a year, and yet benefiting the patients. The Committee, however, took good care not to mention this. As, however, they touch on the question of finances, it would certainly be interesting for the ratepayers of the county of Somerset to find out how the Committee "*secure improved economy of management*" in their *building operations*, and it would be still more interesting for them to know how much money has been expended by them since the outbreak of facial erysipelas and enteric fever *in taking up* and *relaying drains* (*which were defectively laid in the first instance, and this, too, in newly erected buildings*), thus making the ratepayers pay twice over for work which ought to have been properly constructed and supervised at first.

It would be unduly trespassing on your space to enter into further details vindicating my conduct. I trust that the relation of my case may call the attention of medical superintendents of asylums to the terms of the tenure of such offices, that they are liable to be dismissed as I have been, at the caprice of their employers, and that it may lead to a change in the law. It is a monstrous thing that a man may be unjustly dismissed from an office, to the duties of which he has devoted the best years of his life, and yet have no court of appeal to apply to for redress. It appears that I and every medical superintendent are in a worse position than any menial or domestic servant, a Committee of Visitors being able to shelter itself from any action for damages for wrongful dismissal and from the exposure consequent thereon under the terms of the statute before referred to, and the judicial interpretation thereof. It is high time that some court of appeal was instituted which would make these irresponsible "Visitors" feel that after all there is a tribunal to which they are responsible, and that they are not a body which can perpetrate a miscarriage of justice with impunity.

I am, yours faithfully,

CHAS. W. C. M. MEDLICOTT, M.D.,

Late Medical Superintendent, Somerset and Bath Lunatic Asylum, Wells.

13th June, 1882.

[This letter was sent to us in June, but was too late for insertion.—EDS.]

ON THE EFFECT OF PROSPERITY AND ADVERSITY IN THE CAUSATION OF INSANITY.

LETTER FROM D. YELLOWLEES, M.D., Physician-Superintendent of the Glasgow Royal Asylum.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—The above is the title of Dr. Chapman's paper in the last number of this Journal, but the question which it discusses is a much narrower one, viz., whether the production of insanity in the wage-earning population is greater when wages are high or when they are low.

The number and character of the admissions, and the proportion of recoveries, vary so greatly in every asylum from year to year according to many varying circumstances, and even when no difference in circumstances can be detected, that Dr. Chapman's figures cannot be said to prove his conclusion. The doubt is strengthened when we find that although agricultural depression has been at least as great in 1881 as in 1880, only nine of his selected nineteen asylums show any increase of recoveries in 1881 over those of the previous year, notwithstanding the natural increase of population.

But whatever weight may be attached to Dr. Chapman's figures as supporting his opinion, the opinion is assuredly correct. When the weekly wage of the agricultural labourer falls to twelve shillings and remains at that rate, no one will be disposed to doubt that his condition is one of real poverty, that diseases of debility must therefore abound, and that insanity, the result alike of physical and mental depression, must abound also.

The variations in the number of admissions to the Glamorgan Asylum, to which Dr. Chapman refers, took place under *totally different* circumstances. They occurred for very limited periods, amid a population of coal and iron workers, at a time when 42 shillings weekly was deemed a low wage, and when reckless dissipation and extravagance abounded.

The following extract from a paper read in the Psychological Section of the British Medical Association at its annual meeting in 1873 gives these variations, and also my interpretation of them, which, it will be seen, is very different from the sweeping hypothesis which Dr. Chapman ascribes to me:—

"In the second half of the year 1871, the Glamorgan County Asylum received only 24 male patients, whereas 47 and 43 were received in the preceding and succeeding half-years. Again, in the first quarter of the year 1873, the same asylum received only 10 male patients, whereas 21 and 18 were received in the preceding and succeeding quarters. While there was thus on two occasions, for periods of six and three months respectively, a sudden fall in the male admissions to half their usual number, the female admissions showed scarcely any disturbance.

"During the same periods a like experience was made at the County Prisons, the production of crime as well as of insanity being strikingly diminished.

"These two exceptional periods correspond exactly with the last two 'strikes' in the coal and iron trades, in which Glamorganshire is extensively engaged; and these results only afford another proof that ignorance and self-indulgence can make prosperity a curse instead of a blessing.

"The decreased production of insanity during a strike seems mainly due to two causes—the one physical, the other moral. There is no money to spend in drinking, and there is no time to think of anything but the strike. This moral cause is more potent than might at first appear. The strike excites universal interest, and in the districts chiefly affected there is continual discussion of its varying prospects, its certain advantages, and its probable termination. The subject has the deepest personal interest for all, and so engrosses attention, that it gives stability and force to weak and wavering

minds, just as a demented patient becomes reasonable and intelligent for a time when his attention is aroused and his scattered faculties concentrated by an illness or an accident. But the enforced abstinence from drinking and debauchery is beyond doubt the chief cause of the decreased insanity; and this is strongly confirmed by the fact that the diminution is observed only among the men, a large proportion of whom are habitually dissipated."

These observations are in no way inconsistent with the opinion that a *prolonged* strike or *prolonged* depression of trade and greatly diminished wages would increase the production of insanity. In such increase, both sexes would suffer, and melancholia would be the prevalent type.

This is precisely what Dr. Pringle, my successor at the Glamorgan Asylum, observed in 1875, and has recorded in his annual report for that year. Commenting on the large increase of the asylum population during the year, in both sexes, but especially men, he says: "It would thus appear that a prolonged depression of trade such as the past year has witnessed has the opposite effect of a temporary 'strike.' The latter diminishes the male admissions by arresting intemperance, and its voluntary and simultaneous character braces the men to endurance; but the former, whether resulting from a 'lock-out' or otherwise, is involuntary, inevitable, and prolonged, so that while equally arresting intemperance it induces a feeling of universal gloom and depression in addition to the poverty. To these influences the hardest livers are of course the first to succumb, and thus the male admissions are materially increased."

* * * * *

"Amongst the admissions the unusual number of melancholiacs has been very striking, and has no doubt been caused by the depressed state of trade and the general condition of gloom and suffering thereby produced."

Again, in his Annual Report for 1878 Dr. Pringle writes:—

"The admissions have been unusually numerous. . . . . That such a great increase of insanity should take place at the present time, when trade is so depressed and wages so small, and the classes from which this asylum is supplied can scarcely get food and certainly have very little money to spend on drink, may well cause astonishment; but I believe this increase is simply a marked illustration of the well-known doctrine of the 'survival of the fittest' by the succumbing of those whose brains are unable to bear the strain of poverty and hardship in addition to the weakening influences of former intemperance, of family tendency, or other causes which might not of themselves have induced an attack of insanity."

Whether the production of insanity in a wage-earning population is greater when wages are high or when they are low thus seems to depend mainly on circumstances, specially on the wisdom with which high wages are used, and on the length of time during which poverty has to be endured.

The experience of Glamorgan corrects while it confirms that of Hereford.

Yours, &c.,

D. YELLOWLEES.

Gartnavel,
Sept. 7, 1882.

Appointments.

BIRT, C., M.R.C.S., appointed third Assistant Medical Officer to the South Yorkshire County Lunatic Asylum, vice H. C. MacBryan, L.R.C.P., resigned.

CAMPBELL, PATRICK ED., M.B., C.M., appointed Senior Assistant Medical Officer to the Metropolitan District Asylum, Caterham, Surrey, vice G. S. Seccombe, resigned.

Crallan, Geo. Ed. J., B.A.Cantab., M.R.C.S.Eng., appointed Assistant Medical Officer to the County Lunatic Asylum, Cambridge.

Denning C. E., L.R.C.S.I., appointed Junior Assistant Medical Officer to the County Asylum, Shrewsbury.

Grabham, Dr. G. W., Medical Superintendent of the Asylum for Idiots, Earlswood, appointed Inspector of Lunatic Asylums in New Zealand.

Hyslop, James, M.D., appointed to the Petermaritzburg Asylum, Natal, S. Africa.

Macgregor, J. F., M.B., appointed Assistant Medical Officer to the Riccarlstar Asylum, Paisley, vice J. A. Wilson, M.B., resigned.

Mackew, S., M.B., appointed Assistant Medical Officer to the Roxburgh, Berwick, and Selkirk District Asylum, Montrose.

Mapother, Edwd. Dillon, M.D.Q.U.I., F.R.C.S.I., appointed one of the Physicians to the Maison de Santé, Dublin, vice Duncan.

Masterton, J., M.B., appointed Deputy-Assistant Medical Officer to the Ruberry Hill Borough Lunatic Asylum, Bromsgrove.

Miles, G. E., M.R.C.S., appointed Resident Medical Officer to the Northumberland House Asylum, N.

Moore, Wm. David, M.D., M.Ch.Q.U.I., appointed Assistant Medical Officer to the Wilts County Asylum, vice Llewelyn F. Cox, M.R.C.S., resigned.

Nixon, Christopher John, M.B.Dublin, F.K.Q.C.P.I., appointed Visiting Physician to the Dundrum Central Criminal Lunatic Asylum, vice Hughes.

Parry, Mr. H., to be Clinical Assistant to the Darenth Asylum for Imbecile Children.

Petit, Joseph, L.R.C.S.I., L.K.Q.C.P.I., appointed Resident Medical Superintendent of the Sligo District Lunatic Asylum.

Robertson, E. Wagstaff, M.B., C.M.Aberd., appointed Resident Medical Superintendent to the Aberdeen Royal Infirmary and Lunatic Asylum.

Rowland, E. D., M.B., appointed Resident Clinical Assistant to the West Riding Lunatic Asylum, Wakefield.

Seccombe, Geo. S., L.R.C.P.Lond., M.R.C.S., Senior Assistant Medical Officer, Metropolitan District Asylum, Caterham, appointed by the Secretary of State for the Colonies Medical Superintendent of the Colonial Asylum, Port of Spain.

Shepherd, T. A. J., M.R.C.S., L.S.A.Lond., appointed Second Assistant Medical Officer to the Surrey County Asylum, Brookwood.

Taylor, J., M.B., appointed Assistant Medical Officer to the Borough Lunatic Asylum, Newcastle-on-Tyne, vice J. S. Crampton, L.R.C.P., resigned.

White, A. T. O., M.R.C.S., appointed Assistant Medical Officer to the Metropolitan Asylum for Imbeciles.

Wilson, J. A., M.B., C.M., appointed Assistant Medical Officer to the Govan Poorhouse and Asylum, Merryflats, Govan.

ERRATA.

In the July number—For "spent several days at the one well-known asylum" *read* "spent several days at one well-known asylum."

Under "Appointments," Dr. R. B. Mitchell's appointment should have been Assistant Medical Officer to the Royal Edinburgh Asylum.

P. 198, line 37, for "fewer men than women," *read* "more men than women."

THE JOURNAL OF MENTAL SCIENCE.

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

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PART 1.—ORIGINAL ARTICLES.

On the Pathology of General Paralysis.

By JOSEPH WIGLESWORTH, M.D., Lond., Assistant Medical Officer, Rainhill Asylum.

(*With illustration.*)

It is not the object of this paper to give an exhaustive account of the pathology of general paralysis, but rather to describe what appears to us, as the result of our own observations, to be the most prominent histological feature of this fascinating and fatal disease.

The feature to which it is desired to direct attention is the great development of the neuroglia (both of its cells and of its fibres) in the cerebral cortex, no case of general paralysis having yet been examined by us in which a marked excess of this element was not present, though the amount has been found to vary considerably in different cases.

As might have been anticipated, the hyperplasia of the neuroglia is most marked in those regions in which this element is normally most plentiful, viz., in the first layer of the cortex, and just beneath the fifth layer, that of spindle cells. All our observations have been conducted on fresh brain, sections having been obtained on the ether-freezing microtome as soon as possible after death, treated with osmic acid, and stained with aniline after the manner recommended by Bevan Lewis.*

In a section of healthy brain obtained in this manner the first layer of the cortex presents, under a power of about 300 diams., a more or less homogeneous appearance, and scattered sparsely through it are small, more or less rounded cells with very delicate cell walls. Occasionally, though rarely, a few very fine processes may be seen radiating from some of them. There can be no doubt that these cells—the

* "Brain," vol. i., p. 348, *et seq.*

majority of them, at least—are connective tissue corpuscles. Just beneath the deepest layer of the cortex an irregular layer of connective tissue corpuscles is met with, which send out fine processes in all directions. These, though clearly to be distinguished in the normal brain, are somewhat small and inconspicuous. Between these two points, though connective tissue corpuscles are, of course, present, they are not usually visible under the magnifying power above indicated; that is to say, they are not visible in the form of spider-cells.

If, however, a section be taken from the brain of a general paralytic, it will be found that the normal, homogeneous appearance of the first layer of the cortex has been replaced, wholly or in part, by a beautiful fibrillated net-work, in which many large spider-cells are to be seen sending out numerous processes and anastomosing with one another. This appearance, though often extending uniformly through long tracts of cortex, is not unfrequently localised in more or less definite foci. The spider-cells just beneath the deepest layer will be found more or less hypertrophied, often very greatly so, and sending out long processes in all directions. Not only so, but throughout the whole depth of the cortex cells of a similar character may frequently be seen.

We have procured sections of the cortex-cerebri from twelve typical cases of general paralysis, and have compared them with sections obtained in a precisely similar manner from twelve cases of insanity other than general paralysis. It must be noted that this latter series of cases included examples of many different forms of mental affection, and agreed only in the one particular that they were not cases of general paralysis.

The result has been that whereas every one of the former series of cases (which were taken without selection as they came under notice) presented a greater or less degree of the connective tissue hyperplasia above described, this characteristic was entirely absent from all the cases included in the latter series. We have here a simple application of the inductive method known as the joint method of agreement and difference, and if the number of cases taken be sufficient to eliminate chance (and it is submitted that practically the number is sufficient), but little doubt can remain that connective tissue hyperplasia stands in some definite relation to general paralysis either as cause or effect.

We have selected for illustration a case which presented the characters described in a highly marked manner. For

the notes of this case during life we are indebted to our colleague, Dr. Hickson.

George S., æt. 58, single, was admitted into Rainhill Asylum December 12th, 1881. He was in an exhausted condition, suffering from diarrhœa, and died four days after admission, viz., on December 16th. He was a man of good physique, but somewhat emaciated. Thoracic and abdominal viscera appeared normal; pupils, 1½ mm., equal, regular, did not respond to light, but acted somewhat to accommodation; tongue very tremulous, as a whole, when protruded; hands and arms trembled a good deal on movement; speech exceedingly drawling and hesitating, so that it was difficult to understand what he said. In fine, he presented the appearance of a man in an advanced stage of general paralysis.

He passed his evacuations unconsciously, and was wakeful at night, rambling to himself, and fidgeting with his bedclothes.

The diarrhœa continued, and he gradually sank as abovementioned.

His history obtained from his brother, who was an ironfounder, was to the effect that he had led a loose, irregular sort of life, and had drunk a good deal. He was out in New Zealand some years ago, and on his return worked as a clerk in his brother's office. He, however, quarrelled with his brother, and left him some six years ago. He does not appear to have settled to anything since, but seems to have been mainly kept by his relatives, at any rate during the last four years, as he always complained that he could not get employment. No definite history of mental disease was obtainable until the last two or three months, when his landlady said he got very strange in his manner and actions: came downstairs one day without his clothes. He was also observed to be strange by his friends, and it was noted that his hands shook a good deal. He had had a stammer in his speech all his life, but this was noticed to be worse during the last two or three months. He used to be a small eater, but became a ravenous one; on one occasion, being given a pot of jam, he devoured it straight off, scooping it up with his hands. Seven or eight weeks before admission he fell down in the street with some sort of a seizure, and was taken by the police to the workhouse, where he remained until his admission into the asylum.

The family history was unimportant. No record was forthcoming of insanity, epilepsy, or phthisis. Mr. Meeson,

Resident Medical Officer of Toxteth Park Workhouse, under whose care the patient was, kindly sent us, in reply to our inquiries, the following particulars:—

"Patient was admitted to workhouse on November 5th. He was in poor condition, and emaciated; hands were tremulous, and upper lip twitched constantly, except during sleep; articulation was slow in beginning, thick, and accompanied by strong contortions of the lips; right pupil 1½ mm., left 4 mm. He reeled a little in his gait; he imagined himself very rich and the holder of several titles. He at first took food well, but after about a week he suddenly began to refuse it. He then commenced to strip himself, and about the night of the 12th became wildly maniacal, shouting, tearing up his bed, &c. He now rapidly lost flesh and strength."

Autopsy, December 17th (twenty-one hours after death).—Cranium: Skull-cap thin and dense; dura-mater slightly adherent; longitudinal sinus empty; lateral sinuses contain a little black blood. In sub-dural space 4 to 6 fl. oz. of blood-stained fluid, and spread over greater portion of inner surface of dura-mater a thin layer of blood clot more or less adherent to it, in some parts scarcely forming a coherent lamina; slight opacity of arachnoid here and there; pia-mater and arachnoid slightly thickened over frontal and parietal regions of both hemispheres; considerable excess of sub-arachnoid fluid; pia-mater everywhere strips very readily, without any distinct adhesion to surface of cortex; gyri decidedly wasted in frontal and parietal regions; cortex also wasted here, but not markedly so in other parts; ventricles slightly dilated; small vessels coarse, and tendency to *état criblé* in basal ganglia and internal capsules; ganglia otherwise normal. Brain generally pretty firm; cerebellum, pons, and medulla firm, the two latter apparently abnormally so. Basal vessels moderately atheromatous.

Weight of Brain (immediately after removal)		1465	grammes
Stripped of membranes	Right Hemisphere	626	„
	Left Hemisphere...	606	„
	Cerebellum	158	„
	Pons	18·5	„
	Medulla	7·5	„
		1416	„

The lungs were hyperæmic, especially the right lung, but the rest of the thoracic and abdominal viscera presented little worthy of note.

The accompanying engravings, which Dr. Savage very kindly obtained for us from one of our specimens, represent a portion of a vertical section of the cortex from the tip of the middle frontal gyrus of the left hemisphere. In fig. 1 the whole of the first layer of the cortex is shown, and a small portion of the second. The richly fibrillated appearance of the section is at once apparent, and the neurogliar cells are seen enormously enlarged, and sending out processes in all directions, which interlace with one another. In fig. 2 an artery is seen, which traverses the whole of the second layer of the cortex and a portion of the third. Numerous strongly-marked fibres are seen in connection with the vessel, and the same large, much-branched neurogliar cells. But few indications of nerve cells are visible, the best marked cell being to the right of the vessel at the upper part of the figure. Throughout the remainder of the cortex in this section (not here figured) the same large spider-cells abounded, these being particularly large and abundant just beneath the fifth layer.

It will have been observed that the naked-eye description of this brain given above does not altogether correspond with that of the majority of general paralytics. Especially it will have been noted that there was no distinct adhesion of the pia-mater to the cortex. This, however, though very usual, is certainly not invariable; indeed in our experience the presence or absence of decortication or its relative amount has often appeared to depend very much on the length of time which has elapsed since death before the examination was made.

The contention is that the case narrated was one of general paralysis running an unusually acute course, and this view is fully borne out by the history, which there is reason to suppose was reliable.

In this case the connective tissue hyperplasia was more marked than in any other case we have seen, though we have sections from other cases of general paralysis which approach it very closely.

Nothing has been said about the condition of the nerve cells in this disease, because inflation, pigmentation, and atrophy, &c., which are so frequently met with, occur also in many other forms of insanity.

The conclusion, then, hitherto reached is that the hyperplasia of connective tissue above demonstrated bears some definite and constant relation to general paralysis either as cause or effect.

It might, however, be argued that the nerve cells in this disease had undergone atrophy, and that the connective tissue element had overgrown to supply their place, or that the hyperplasia had occurred in consequence of the increased supply of blood attracted by inflammatory changes in the nerve cells. If this were the case, however, the hyperplasia ought certainly to occur in other forms of insanity. It cannot be denied that in the long night of dementia which so frequently overtakes the subject of an attack of mania sufficient time is given to the neuroglia to proliferate had it the slightest tendency to do so; but though in several cases of the series taken for comparison with general paralysis the insanity had extended over many years, in none of them was there the smallest evidence of connective tissue increase, nor in our experience have we met with this in any case other than general paralysis except in cases of chronic Bright's disease. In two brains which we examined from cases of this disease, one from a sane, the other from an insane patient, some distinct fibrillation of the first layer of the cortex was present. This fibrillation was, however, moderate in degree, and not sufficient to create any difficulty. Dr. Bevan Lewis has, however, described and figured * proliferation of the connective tissue element from a case of "senile atrophy."

Furthermore, if we may judge from two or three cases that have come under our notice, the more recent the case of general paralysis, the more rapid the course it has run the better marked have been the characteristics described.

We have made no mention of the known fact that the lesions of general paralysis are not confined to the cortex of the brain, but are met with in the basal ganglia, spinal cord, &c., but we have dwelt upon the cortical lesion as being the most essential factor in the disease.

The conclusion, then, finally arrived at is, that general paralysis is a true interstitial inflammation of the brain running a subacute or chronic course, that it is, in fact, a true cirrhosis of the brain altogether comparable to cirrhosis of other organs, such as that of the liver; in other words, that connective tissue hyperplasia is the primary element in the disease, and the affection of the nerve cells secondary.

* "Proc. Roy. Soc.," June, 1877.

We are aware that this view of the pathology of the disease is not altogether new, though we think one that is by no means generally accepted, in this country at least. By a reference to Dr. Julius Mickle's work on General Paralysis it will be seen that Rokitansky and other pathologists have regarded the disease in the same light.* We think, however, that the result of an entirely independent investigation of the malady is not without its value, more especially as it has been conducted upon brains in the fresh condition.

The above formulated view of the nature of this disease has been founded solely on pathological observations. A few remarks on the manner in which it harmonises with the clinical features of the malady may not be out of place.

It is pretty certain that our normal feelings of health and well-being are attended by a free supply of healthy arterial blood to the cortex-cerebri. The exhilaration produced in the early stages of alcoholism probably has for its physical accompaniment the same vascular state. The remarkable feeling of *bien être* which forms so striking a feature in a large number of cases of general paralysis must be looked upon as having for its physical basis a similar arterial condition somewhat exaggerated. There is, however, this remarkable difference, that whereas the two former conditions are more or less transitory, we have in the latter a state which often lasts for weeks or months with but slight modification. We are almost driven by this consideration to seek for the cause outside the nerve cells themselves. Inflammatory changes in these latter can probably not be long continued without causing great damage to or destruction of the delicate protoplasmic substance of which they are composed, with consequent diminution or arrest of their function and great falling off in the arterial supply. A more or less general overgrowth of the connective tissue element of the cortex would, however, keep up a constant and excessive supply of nutrient material, in which the nerve cells would be bathed. It is submitted, then, that a general turgescence of the neuroglia system of the cortex with in many cases active proliferation of its elements would offer a physical explanation of the peculiar grandiose mania which forms so characteristic a feature of a large number of cases

* "General Paralysis of the Insane," by W. Julius Mickle, p. 124.

of general paralysis. This view does not, of course, exclude the assumption of secondary inflammatory changes being set up in the nerve cells, with consequent modification of the symptoms, but with this part of the question we are not now concerned.

It may, of course, be objected that an important minority of cases never present the grandiose mania, but that the symptoms of dementia predominate from first to last, and this objection is a valid one. Cases of general paralysis vary, indeed, so much in their clinical symptoms as to entail a corresponding variation in their pathology. We think, however, that differences in the rapidity of progress of the lesion will account for much, differences in its exact distribution perhaps for more. If, indeed, the stress of the disease falls mainly upon the lower centres in an early stage of the malady, and if we suppose that by this means the channels of conduction from the higher centres—of communication with the outer world—are impaired or destroyed at the commencement of the disease, it is evident that any subsequent involvement of these higher centres will be declared by few or no clinical symptoms. Whatever be the storm that rages within, nothing will occur to disturb the outward calm. Much will also depend upon whether destructive changes in the nerve cells occur early or late in the disease, but this question must be left for future investigation to determine.

DESCRIPTION OF PLATE.

Sections × 333.

Fig. 1.—Vertical section through whole of first layer, and a small portion of second, from middle frontal gyrus. The first layer presents a marked fibrillated appearance, and numerous large, much-branched neuroglia corpuscles (*a*) are scattered throughout. There are indications of nerve cells (*b*) at the lower part of the figure.

Fig. 2.—Vertical section through second layer of cortex and a portion of the third from the same specimen as fig. 1. A vessel runs the whole length of the section, in connection with which are numerous strongly-marked fibres. Large, much-branched neuroglia cells (*a*) are irregularly scattered throughout. There are but few indications of nerve cells; one is seen at *b*.

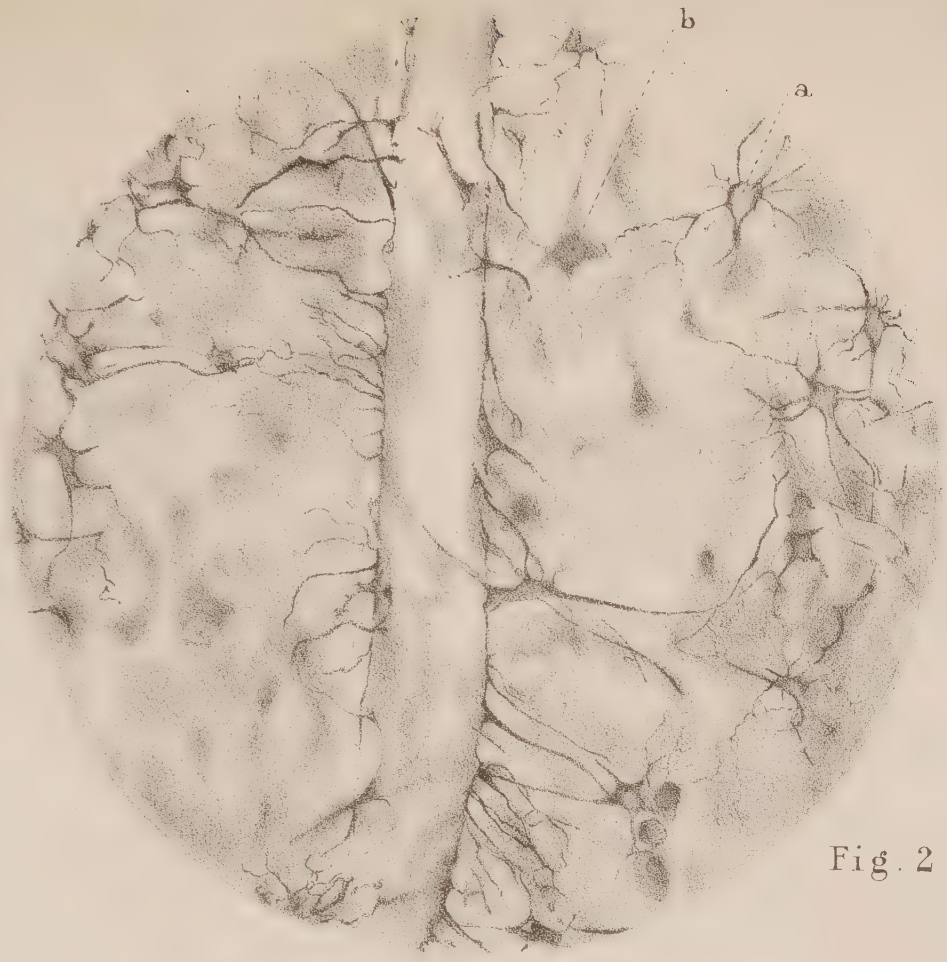

Fig. 2.

Fig. 1.

C Stewart del.

Mintern Bros. imp.

TO ILLUSTRATE DR WIGLESWORTH'S PAPER.

On the Character and Hallucinations of Joan of Arc. By William W. Ireland, M.D., Home and School for Imbeciles, Preston Lodge, Prestonpans.

(Read to the Branch Meeting of the Medico-Psychological Association at Edinburgh, 1st November, 1882.)

In a former paper read to a meeting of this Association I attempted to gather together what has been handed down to us about the nervous disorders and hallucinations of Mahomet,* of Luther, and of others great in history. It gave me much gratification to see that the paper formed the text of an interesting discussion. As we learn more of the influence of external circumstances and physical conditions on human belief and conduct, the records of the past are read in a new light. As science shows us the relation of events previously unknown, we see more surely how things really occurred; what was perplexing becomes clear; embellishments and additions fall off; and we are confirmed in the belief that the past was governed by the same laws as the present. Thus the knowledge of nervous diseases, and the experience gained by the study of hallucinations, illusions, and the errors and deceptions of the human mind, may explain some of the difficult problems of history.

In considering the claims of Joan of Arc to have been inspired by heaven, from a psychological aspect, it seems to me necessary to recall as much of her history as will illustrate the nature of these claims, and their effect upon a credulous age. Even the bare narration of many of the leading events of her life, so strangely mixed up with the superstitions of the times, will show the complete change which has taken place in our views of the supernatural. Events like these can never again occur in Europe, for the conditions under which they occurred will never return. The part played by this memorable heroine is unique in history.

The infant son of Henry V. of England and of the French Princess Catherine, had been proclaimed King of France, and at this time it was thought likely that he would really inherit the throne of his grandfather, though, as events proved, he only inherited his insanity. The English, in alliance with the Duke of Burgundy, had made the claims of their young prince to be acknowledged by well nigh all France north of

* Published in the "Journal of Mental Science" for January, 1875.

the Loire. They had been besieging Orleans for seven months. The dauphin, son of Charles VI., was living in the castle of Chinon, with a scanty and precarious revenue, deserted by most of the great nobility. An attempt to effect a diversion in favour of the beleaguered town had ended in a severe defeat. It seemed left to its fate, and it was generally thought that it would fall in the end. The armies of England and Burgundy would then be free to cross the Loire, and drive the dauphin from the southern provinces, which still acknowledged his right. We read in the chronicles of the times that the prince himself meditated leaving France in the hands of his enemies, and seeking refuge in Spain or Scotland. When no one expected it, the tide of affairs, which seemed driving his cause to ruin, was turned to his triumph, and the most successful soldiers in Europe were put to flight by a peasant girl of eighteen years of age. Town after town was recovered to his rule, and Charles VII. was triumphantly crowned in the sacred seat of his ancestors, which a few months before seemed hopelessly in the power of his enemies.

The means by which this marvellous revolution was accomplished were simple enough, an appeal to passions and beliefs universally existing in a credulous age. For thirteen years France had been laid waste by the ferocity of the English invaders, and the fury of civil war. One disaster had followed another; the minds of the people were deeply stirred. There was a prophecy diffused amongst them that France, after being laid desolate by a woman, should be restored by a virgin. The woman was Isabella of Bavaria, the Queen-mother, who had taken the side of the English; and it appears that the virgin was for some time thought to be Margaret, the infant daughter of James the First of Scotland,* who had

* See the "Life and Death of King James the First of Scotland" (printed for the Maitland Club), 1837, pp. 6 and 7. See also Vol. iii., p. 340 of "Procès de Condamnation et de Réhabilitation de Jeanne d' Arc dite la Pucelle, publiés pour la première fois d' après les Manuscrits de la Bibliothèque Royale suivis de tous les documents historiques qu' on a pu réunir, et accompagnés de notes et d' éclaircissements, par Jules Quicherat. Paris, 1841." This work, in five volumes, published by the Historical Society of France, is so complete that it will be needless to cite any other books on the subject. M. Quicherat has shown great learning and diligence. The notes supply all the information needed to elucidate the text, and there is an excellent index.

Out of the materials thus furnished has been written "The Life and Death of Jeanne d' Arc, called the Maid, by Harriet Parr," in two volumes. London, 1866. The authoress has shown much skill in seizing upon the striking and picturesque scenes in the life of the heroine. The narrative is vivid; but there is no attempt at psychological analysis.

been betrothed to the dauphin's son, an event which had perhaps excited the hope of a new contingent of those Scottish warriors who had kindled a gleam of hope through France by the victory of Beaugé, where the brother of the English King had been slain. Another version of the prophecy was actually quoted by Joan of Arc herself, when she was trying to persuade Robert of Baudricourt to send her to the dauphin: "Have you not heard," she said, "that it has been foretold that France should be destroyed by a woman, and restored by a virgin from the Marches of Lorraine?" The people recollected the prophecy, and this had a great effect in converting the inhabitants of Vaucouleurs to assist the wonderful peasant girl on her strange mission.

Joan, in fact, was born at Domrémy, on the borders of Lorraine. Her father and mother were labouring people. All her early associates belonged to the peasant class. She had three brothers, and, at least, one sister, who grew up. Her parents bore a good character; but Joan, though apparently instructed in religion, could neither read nor write. At an early age she was sent to keep sheep, and, as she became stronger, went to work in the fields with the plough and grape. Those who remembered her said that she was skilful at sewing, was kind to the poor, simple and modest, and very devout at religious exercises. The people of Domrémy took the side of the French; the neighbouring village of Marcey held for the Burgundians. The boys of the two hostile villages often used to fight, and come back hurt and bleeding. The inhabitants of Domrémy had to leave their village for four days for fear of their lives. Amidst the excitement of these painful events Joan grew up to womanhood. According to her own statement, given in the notes of her trial, she first heard a supernatural voice when she was thirteen years old. When she heard the voice she was much afraid. It was about mid-day, in her father's garden. She had fasted the day before. The voice appeared to come from the right side, towards the church. She seldom heard a voice without seeing a light, generally a bright one. The light came from the same side as the voice. When she was in a grove she could hear voices approaching her. She was fond of hearing bells, and the voices of saints and angels mingled with their chimes. As most of the process is given in Latin, we rarely know what were the original words which Joan fancied to be sounded in her ears. In one place it is

said that she often heard: "Fille Dé, va, va, va, je serai à ton ayde; va." "Daughter of God, go, go, go, I will aid you; go." This might readily be suggested by the sound of the bells, as in the old story of "Turn again, Whittington, thrice Mayor of London," or in the words of a royal poet her contemporary:—

> "Suich a fanatasye
> Fell me to mynd, yt ay me thot the bell
> Said to me, Tell on man, quhat the befell."*

It would seem most probable that the first sounds heard by Joan were short sentences like these; but we learn from her own recollections that it was revealed to her in the first vision that she was to go to the rescue of France.

In a letter of Perceval de Boulainvilliers to Philip Visconti, Duke of Milan, dated 21st June, 1429, there is an account of Joan, which was probably taken from original observation, for Boulainvilliers held a high office at the court of the dauphin. He writes that the first revelation made was when Joan was twelve years of age. She agreed to try a race with some of her companions. She ran with such swiftness that one of the girls cried, "Joan, I see you flying over the ground." She stopped to take breath at the end of the meadow.

She thought she heard a boy's voice saying, "Joan, go home, for your mother needs you to help her." Thinking it must be her brother, or some other boy, she hastened home. Her mother asked her why she had left her sheep, to which the girl answered, "Did you not send for me?" Her mother said "No." Then, believing herself mistaken about the boy, and wishing to return to her companions, suddenly before her eyes a bright cloud or haze appeared, and from the cloud a voice came, saying: "Joan, you must lead another life, and do wonderful actions, for it is you whom the King of Heaven has chosen for the succour of France, and the help and protection of King Charles expelled from his dominions. You will put on male attire, and, taking arms, will be the leader of war. All things will be ruled by your counsel." It seems likely enough that these two accounts reproduce different circumstances of the same story, for Joan may have thought that the first voice, calling her to her mother, was not worth mentioning; or it may have been suppressed in the truncated notes of her trial.

* "The King's Quair." A poem: By James the First, King of Scots. Canto I., xi.

These visions returned again. The angel Michael brought with him St. Catherine and St. Margaret, who often visited her. She knew their voices, which were gentle and sweet, said that she had embraced and kissed them, and felt that they had a good odour. They exhorted her to lead a pure life, and to go to mass, and she made a vow of virginity to them. At her trial a great many questions were put to her about the appearance of these angels and saints, whether the angel wore a crown? and whether he had hair beneath it? and whether the hair was long or short? or whether the saints had rings in their ears, or wore dresses of the same cloth? When it came to such particulars Joan refused to answer, sometimes saying she was forbidden to answer, perhaps because the visions had a vague form, or that she feared some snare under their captious questioning. A few months before Joan's trial a woman in Paris had been burned because she said that the maid was doing the will of God, and that she herself had seen God, and that He wore clothes, which was treated as blasphemy. Joan, however, firmly maintained the reality of the apparitions. She said that Michael had the form of a proper man. "I saw them," she said to her judge, "with my own eyes, as plainly as I see you, and when they retired from me I wept, and much I wished that they would take me with them." She kissed the ground over which they had passed. Joan told no one of these visions, not even her confessor; but apparently her parents had their surmises or fears, for about two years after her first vision, when she was about fifteen, her mother told her that her father had dreamed that their daughter would go away with armed men to France. He told her brothers that he would rather she were drowned than that this should happen to her. She said that her father and mother watched her, and kept her in great subjection, and that they almost lost their senses when she went to Vaucouleurs. She said she never disobeyed them save in the case of the young man who wanted to marry her. He summoned her to the court at Toul, saying she had promised to marry him, which she denied on oath. The voices told her that she would gain her process. Apparently this young man had seen Joan at Neufchateau, where she had gone for fifteen days to live with a woman who kept an inn. Her enemies made a good deal of this residence at the inn, saying that she used to take horses to water, and thus learned to ride. It is not very clear how she learned to be so expert at

riding, as it seems she was, when she appeared before the dauphin at Chinon.

As time wore on the tumult of war came nearer and nearer, and the prolonged siege of Orleans kept the whole of France in a state of excitement. The voices told her twice or thrice a week to go to Robert of Baudricourt, the commandant at Vaucouleurs, and that he would help her.

She went to live with her uncle, who took her to Robert of Baudricourt. At first he was amused at her simplicity, and incredulous of her visions; but the voices encouraged her, and she gained some converts among the people of Vaucouleurs, so that when he received her favourably, after twice sending her away, the people bought her a horse, and got male attire made for her. Joan had an interview with the Duke of Lorraine, and Robert of Baudricourt sent her with six men with a letter to the dauphin at Chinon. It was a long and dangerous journey through a country infested by the enemy. She arrived at Chinon on the 6th March, 1429. We can understand the feeling of the dauphin on receiving this strange message. Here was a peasant girl of eighteen years of age, dressed like a man-at-arms, proclaiming that she had a revelation from on high to go and relieve Orleans and deliver France. Mere acquiescence would not do: she must have an army and convoy with her.

She is said to have singled out the dauphin amongst his courtiers, although some one else was deputed to play the king. At her trial Joan stated that she was enabled to do this by a voice which revealed the prince to her. Joan is described as being tall and comely, with dark hair, having a graceful and modest demeanour, and a sweet voice, generally speaking little, of a cheerful countenance, but readily moved to tears. She showed great power of enduring fatigue, and from the beginning seemed skilful at riding and in the use of weapons. She was repeatedly examined during three weeks by different dignitaries of the Church and doctors of theology, first at Chinon and then at Poictiers. The examination at Poictiers lasted three weeks, and was committed to writing. Unfortunately it could not be found when the information for her rehabilitation was taken. In the resumé which still remains to us, it is stated that the king had made inquiry about the life, birth, manners, and designs of the said maid, and had kept her near him for about six weeks, so that all people might observe her, whether learned men, ecclesiastics, religious people, soldiers, wives, widows, or others. Both in public and in private she has conversed with all people;

but in her they find no evil, nothing but goodness, humility, virginity, devotion, honest simplicity; and of her birth and her life some marvellous things are told. The king asked her for a sign, as Ahaaz did of God; but she said that she would show it before Orleans, and in no other place, for so God had ordered. They ought therefore to let her go to Orleans with her soldiers, hoping in God, for to doubt or to abandon her without appearance of evil would be to offend against the Holy Ghost, and make themselves unworthy of the aid of God, as Gamaliel said in his counsel to the Jews concerning the apostles.

From Chinon she sent a letter asking the priests to seek for a sword which was under the ground near the altar of St. Catherine of Fierbois. An armourer of Tours was sent on this errand, and a rusty sword was found near the place indicated. On the sword being cleaned, the priests said that the rust fell off with a readiness which they were willing to regard as supernatural. The sword was used by the maid till the siege of Paris, when she broke the blade on the back of a courtesan who was following her men-at-arms. One of the chroniclers says that Joan had never been at the Chapel of Fierbois; but she herself stated in her trial that she had passed through this place, and had heard mass at the chapel, when it is likely that she had learned or guessed that some arms were under the pavement, as it was common to bury armour and swords with the dead. The weapon had five crosses engraven on the blade, and Joan claimed that her voices had revealed this to her.*

Most historians mention this fact without any comment, and indeed it is difficult to give any reasonable explanation of it.

The surprising events that followed are related in every history of France. The convoy entered Orleans without the English daring to oppose her. Three of their bastiles or forts were carried by assault, and their army was in full retreat in ten days after the holy maid appeared with her awe-inspiring standard. The French believed her to be a prophetess; the English feared her as a witch. Knights and warriors gathered to fight under her banner, and this girl of eighteen sat at councils of war, and quoted her miraculous voices against the opinions of Dunois, Alençon, and La Hire.

When we remember that she was only an ignorant peasant girl of eighteen years of age it is astonishing how well she

* Respondit quod erat in terra, rubiginosus, habens quinque cruces; et hoc scivit per voces suas, Tome I. 235. See also iv., 129.

played her part. Before the court at Chinon, before the doctors of theology at Poictiers, with the armed convoy at Orleans, and in the battles and sieges which followed, Joan had ever sustained and increased her reputation. To use the words of an old chronicler,* "She rode always in complete armour, as much or more than any captain of the time, and when one spoke of war, or putting troops in order, she made it to be heard and seen that she knew what she was about, and when the cry of arms was sounded she was the first and readiest, whether on foot or on horseback." In the procès de réhabilitation we have the testimony of the renowned generals under whom the English were driven out of France, taken about twenty-five years after the death of the heroine. The Duke of Alençon, who bore her a warm friendship, said that in war she acted as cautiously and prudently as if she had been a captain who had borne arms for twenty or thirty years, and that she was especially skilful in the preparation of artillery.

Similar testimony was given by Count Dunois, who stated his belief in her divine mission. Some very curious testimony was given by Jean d'Aulon, a valiant and worthy gentleman of Languedoc, who was commissioned by the king to attend on Joan, and who followed her everywhere, guarded her in battle, and was taken prisoner along with her. After bearing witness to the purity of her life, and recording his belief that it was impossible that so young a girl could do such deeds without the will and help of our Lord, he said that Joan had told him that when she had on hand some difficult undertaking, her council told her what she ought to do. D'Aulon asked her who were her council? She answered that there were three advisers, of whom one always remained with her; the other went and came often to her, and visited her; and the third was the one with whom the two others deliberated. It happened that once upon a time D'Aulon begged of her that she would show him her council. She answered that he was not worthy nor virtuous enough to behold them, upon which he ceased to speak or inquire about it. From the words used these councillors seemed to be of the male sex. At the attack on St. Pierre-le-Moustier the French were driven back, and D'Aulon was wounded on the heel; but observing that the maid was almost left alone, he got on a horse and rode towards her, asking her what she was doing there alone, and why she

* Tome iv., p. 248.

did not retire like the others? Joan, after having taken her helmet from her head, answered that she was not alone, that she had still in her company fifty thousand of her people, and that she would not go away until she had taken the town. D'Aulon was sure that at that time, whatever she said, she had not with her any more than four or five men. This he knew for certain, as well as several others who likewise saw her. She, however, refused to go away, and got the soldiers to lay a bridge over the ditches, and storm the town at this very place.

D'Aulon quoted a speech of hers to the celebrated Dunois: "Bastard! bastard! in the name of God, I command you that whenever you know of the coming of Falstaff you will let me know; for if he passes without me knowing I promise you that I will make your head be taken off." There was nothing, in the usage of these times, offensive in the title of bastard for one who claimed descent from a prince of the blood; but for a peasant girl to use such language to a man of rank, apparently without giving offence, showed what a high tone the maid assumed as a messenger from heaven. D'Aulon goes on to tell, that after retiring to sleep, the maid started up, saying that she had been warned by her council to go against the English, but that she did not know whether to go against the bastiles or against Falstaff, who came to victual them. She made him put on her armour, and rode out to the gate of Orleans. On her way she met a soldier coming in badly wounded, when she said that she never saw the blood of a Frenchman without her hair standing on end. A short time after the bastile of St. Loup was carried by assault.

Despite the coarse abuse of the English, her virginity was beyond dispute; but menstruation seems never to have occurred.* Schiller, in his beautiful drama, "Die Jung frau

* Dominus Johannes Massieu Curatus ecclesiæ parochialis Sancti Candidi Senioris Rothomagensis dicit et deponit, quod bene scit quod fuit visitata, an esset virgo vel non, per Matronas seu obstetrices, et hoc ex ordinatione ducissæ Bedfordiæ, et signanter per Annam Bavon et aliam matronam de cujus nomine non recordatur. Et post visitationem, retulerunt quod erat virgo et integra, et ea audivit referri per eamdem Annam; et propter hoc, ipsa ducissa Bedfordiæ fecit inhiberi custodibus et aliis ne aliquam violentiam sibi afferrent. Tome iii., p. 155. Several other witnesses testified to the same effect. See also iii., 102 and iii., 102 and 209. D'Aulon dit encores plus qu' il a oy dire à plusieurs femmes, qui ladicte Pucelle ont veue par plusieurs foiz nue, et sceu de ses secretz, que oncques n' avoit eu la secrecte maladie des femmes et que jamais nul n' en peut riens cognoistre ou appercevoir par ses habillemens, ne aultrement. Tome iii., p. 219.

von Orleans," makes Dunois and La Hire rivals to gain the love of the warlike maid, and there is a striking scene where the amazon shows a tenderness for a vanquished foe, the English leader Lionel. In the Procès de Réhabilitation, Dunois, Alençon, and D'Aulon declared that her conduct repressed every irregular desire, and that they never felt any passion for her. As she was not without personal attractions, they were willing to recognise in this something of the supernatural.

Many instances might be given of the highly sensitive temperament of the heroine. John Pasquerel, an Augustan monk, who had acted as her confessor, said that when she was wounded by an arrow above the breast at Orleans she was afraid, and wept. When Glansdale, the English captain, who had coarsely abused her from the bastile, fell into the Loire trying to escape and was drowned, she began to weep for his soul. When she saw the English soldiers lying wounded she had great compassion, and would get them a confessor. She herself often heard mass, and went to confession; and tried to get the soldiers to do the same. She would not suffer profane language, and had the credit of getting La Hire to give up swearing. She had such a horror of plundering that, when a Scotsman told her she had eaten of a calf obtained in this way, she was very angry, and wished to strike the said Scot.

Joan had a truly feminine dislike to the girls who followed the camp. Her enemies accused her of being too proud, and fond of fine armour and trappings.* Save in matters pertaining to war, she was simple and credulous; but no one, whether friend or foe, seems to have thought her insane.

(*To be continued.*)

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* Jean Rogier, in his Memoirs, quotes a letter of the Chancellor of France, who was an archbishop, about the taking of Joan of Arc. He says: "que Dieu avait souffert prendre Jehanne la Pucelle pour ce qu' el s'estoit constitué en orgueil, et pour les riches habitz qu' el avoit pris." Tome v., p. 169.

M. Quicherat quotes from an old chronicle written evidently by one who favoured the Burgundian party, and disliked Joan, that "quant aucun de ses gens mesprenoit, elle frappoit dessus de son baston grans coups, en manière de femme très cruelle." Tome iv., p. 469.

Observations on Cannabis Indica and Syphilis as Causes of Mental Alienation in Turkey, Asia Minor, and Morocco. By John H. Davidson, M.D. Edin., Medical Superintendent of the Cheshire County Asylum, Chester.

A recent holiday sojourn in Morocco having enabled me to complete certain information which I obtained some years ago while on a tour through Turkey and Asia Minor with respect to how far *cannabis indica* and syphilis are factors in the production of mental disease in the East, I proceed to record the following information which I have gathered on the subject:—

Cannabis indica or *cannabis sativa*, as medical men are aware, furnishes the product known as hashish, a product which has been the subject of much serious study, and which is known all over the East for its extremely intoxicating quality. The name hashish is adopted only in Egypt and Syria; in Turkey it is known by the name of *esrar*, where the term hashish is only applied to the poppy—*papaver somniferum*, from which opium is extracted. The Turkish word *esrar* simply means secret production or secret preparation, a term first applied by the simple-minded inhabitants of Anatolia, where the plant is extensively grown. In Morocco it is universally known by the name of *kif*, an Arabic word, signifying quietude or rest. It is in much use throughout the whole of that magnificent country, and it may be said that all those Moors, Berbers, and Arabs whom one meets in the streets of the cities dragging themselves about, and looking with a dull, stupified expression of countenance, like men who have just had a blow on the head, are victims to this deleterious drug. The greater part of them smoke it, mixed with a little tobacco, in small clay pipes, by which means prompt action is produced, while others eat it in the form of a sweetmeat called *madjun*, made of butter, honey, nutmeg, and cloves. This *madjun* is a soft paste of a violet colour, with a smell like pomatum. The *esrar* powder is not unfrequently taken in water, when its effect is very rapid and injurious. In Turkey the *esrar*, eaten as a sweetmeat, has both the colour and odour of coffee, for in its preparation much care is taken to water the *esrar* powder with a strong infusion of coffee.

On arriving in the locality where *cannabis* is cultivated the *esrar* merchant divides into squads the large number of

people that accompany him. They then enter the extensive fields of *cannabis*, and commence cutting off all the flowering tops of the plant in order that the leaves, from which the product is drawn, may become more developed and more vigorous. A fortnight after this operation the harvesting begins, the merchant being first assured that the leaves have considerably enlarged, and that they present much viscosity to the touch. The plants being all collected and placed under a shed, the leaves are detached from the stalks and laid out to dry upon a large linen carpet called a *kilim*. As soon as the leaves have reached the desired dryness they are picked up and placed together upon one half of the *kilim*, the other half being reserved for rubbing them rudely until they are reduced to a powder. This first product is at once sifted, and put aside with care, for it constitutes the choicest quality of *esrar*, and is called *sighirma*. The residue, containing the fibrous tissue of the leaves, is reduced to a powder in the same manner. This second product, called *hourda*, is not by any means esteemed, for while the first quality is usually sold at about sixteen shillings the pound, the other, on the contrary, scarcely fetches the half of that sum.

The *esrar*, which reaches the capital of the Ottoman Empire, is enclosed in double sacks, the exterior bag being of horsehair, and that of the interior of skin. All powder of *esrar* is not entirely consumed in the country, for more than the half passes into Egypt, Algeria, Tunis, Morocco, and other benighted lands where Islamism holds sway. Prior to being delivered for consumption it is subjected to various processes of manufacture according to the different tastes of the inhabitants of the countries to which it has to be transmitted. In Egypt and Syria, as is well known to all inquiring and observant travellers, the confection extract is held in the highest esteem, while at Constantinople this preparation is disliked because of its rancid odour and taste, which render it most unpalatable. The *esrar* most patronised in Turkey, is chiefly to be had in the form of a syrup, with which sherbet is prepared, or as lozenges, which the lovers of this baneful intoxicant smoke with *tombeki*. As the simple syrup of *esrar* always has a disagreeable odour and rancid taste, it is never forgotten to add to it such aromatic substances as *bahart*, without neglecting at the same time to enhance it with something of an aphrodisiac character. This latter corrective always plays a very important *rôle*, for by the

excitation of the genetic organs, which it provokes and maintains, there is imprinted on the extatic delirium a special direction of ideas, with a series of the most sensual and voluptuous visions, thus procuring to all those who make use of the drug a foretaste of the delights and pleasures of paradise, which the Moslems in general believe are reserved in the future life to all true believers in Islamism and its founder, Mohammed. On visiting a coffee-house in one of the Moroccian cities much celebrated for the excellence of its coffee and *kif* as well as other *agréments,* I had the opportunity of witnessing the drug both smoked and eaten. Shortly after being indulged in—say about half an hour—a feeling of great hilarity is created, some laughing most unmeaningly, and fancying they are being lifted from the ground and carried through the air in the arms of angels; but the wind-up to this pleasurable feeling is a sudden, deep, and painful melancholy, while a poignant aspect of remorse and regret is depicted in every countenance. The joys of *kif* and the *dolce far niente* have now completely vanished, and the indulgers in the drug have been rendered the most miserable of men.

That hashish taken to excess in any form or by whatever name it may be called is a most prolific cause of insanity is a fact beyond all question or doubt, for the large numbers of *santos,* or saints, constantly met with in Morocco everywhere one turns, who have been long the slaves of this vice, doubtless afford the most conclusive evidence of its pernicious effects on the brain and nervous system. Many of these *santos,* who receive the greatest homage, and are regarded with the profoundest respect and veneration by the Moors, are very frequently most dangerously homicidal, while not a few of them have been reduced to a most deplorable state, the condition of drivelling imbeciles.

Syphilis is another most potent and fruitful source of insanity throughout the entire length and breadth of Morocco, scarcely a family being free from the syphilitic taint, which, it is alleged, was first introduced into the country by the Jews who took refuge there on being driven out of Spain, before which time, however, it was not known in Morocco even by name. It was first called "the Spanish sickness," but is not known now by that appellation. The Moors call it "the great disease," *mrd-el-kebir,* or "the woman's sickness," *nord-el-nssauin.* So common is this disease in this portion of Africa, I have been informed,

that there is scarcely a Moor in Barbary who has not more or less of the virus in his blood; indeed, in many families it has become hereditary.

The peasantry in the interior of Turkey and Asia Minor are most abstemious, both as regards eating and drinking, being greatly dominated by the religious sentiment, which forbids to them the use of all fermented liquors. Less scrupulous upon this point than their co-religionists of the interior, the Mussulmans of the capital of the Osmanlis, in order to procure pleasant and agreeable sensations, often have recourse to other substances not less hurtful to the health than *esrar*, namely, mastic, raki, and other fermented drinks, while throughout the whole of Morocco till beyond the Atlas mountains, from the highest grades in society to the lowest, wine, gin, and brandy distilled from dates are indulged in to a very large extent indeed, notwithstanding the interdiction by the Koran of the use of all fermented beverages.

Having given as full and accurate an account of hashish and its various preparations as a brief paper like this will permit, I will only add that it is my intention to describe in a future paper the police measures adopted by the Government of Turkey against the use of the esraric substance by the people; to set forth more fully the ordinary phenomena that its use provokes in men in the enjoyment of their reasoning faculties; to describe the experiments made with the drug which I have witnessed on the insane in the East; and also to point out the various disorders which the use of *esrar*, hashish, or *kif* occasions in the intellectual, physical, and moral conditions of those who abuse it, and also the hereditary consequences of its abuse.

The Data of Alienism. By Charles Mercier, M.B., Lond., F.R.C.S.

II.

The Organism—The Inherited Organization.—*Continued.*

The second law of heredity is equal in importance to the first, and since it is of special importance in the study of insanity, and since both the law and its consequences have been hitherto almost overlooked by alienists, it is necessary to insist upon it with additional emphasis, and to discuss it at some length. This is the more necessary since there has been no formal enunciation of this law, although the

several positions that it includes are very generally recognised. The following is the somewhat cumbrous expression of what I propose to call *the Law of the Limited Dissimilarity of Parents.*

There are certain limits, on the one hand of similarity, and on the other of dissimilarity, between two individuals, between which limits only can the union of those individuals be fertile; and in proportion as these limits are approached, the offspring deteriorates in organization.

First as to similarity. When a certain degree of similarity exists between parents, the offspring inherits their common distinctive characters in an intensified degree, and when these characters are beneficial the offspring is a more highly developed organism than either of its parents, and *vice versâ;* but there is a certain degree of similarity between the parents, not necessarily of closeness of blood relationship, but of actual connature,—of identity of physiological characters, which is inimical to the perfect development of the offspring, or its development up to the normal standard of the race. As the similarity between the parents increases, the offspring becomes more and more markedly inferior, and when a sufficient degree of similarity is reached no offspring can be produced.

A distinction has just been drawn between nearness of blood-relationship and closeness of physiological characters, which requires explanation. If two brothers inherit strongly the characters of one of their parents, and if each of these brothers transmits these qualities prepotently to his children, the cousins thus produced will have not only a close relationship of blood, but a close similarity of physiological characters, and if they marry, their offspring will be likely to be imperfect. If, however, of two brothers one inherits strongly the characters of the father and the other exhibits a strong reversion to the maternal great-grandfather, and if the children of one brother inherit mainly from the father, while the qualities of the mother are prepotent in the children of the other, it is evident that although the blood-relationship is as near as in the former cousins, yet since these cousins have a considerable physiological dissimilarity, their offspring will be likely to be well developed. In this reasoning we find an explanation of the varying conclusions of those who have studied the marriage of near kin. Those who have made the most careful and copious observa-

tions of the marriages of cousins have concluded that on the whole very little ill effect is traceable, while here and there instances have been recorded which unquestionably point to such an ill effect. On the other hand, the testimony of breeders of animals is overwhelmingly strong on the evil effects of inbreeding, but then inbreeding when applied to animals means far more than a simple union of cousins. It is admitted on all hands that it is the effect of *continued* inbreeding that is detrimental, and the union of a pair of cousins would certainly not come under this description. "Manifest evil," says Mr. Darwin, "does not usually follow from pairing the nearest relations for two, three, and even four generations." But when the inbreeding is continued far enough the deterioration of the offspring is certain, and the ultimate extinction of the race inevitable. "Mr. J. Wright crossed the same boar with the daughter, grand-daughter, great grand-daughter, and so on for seven generations. The result was that in many cases the offspring failed to breed; in others they produced few that lived; and of the latter many were idiotic, without sense even to suck, and when attempting to move could not walk straight." That this result was due to inbreeding, and to no other cause, is seen from the fact that when these sows were paired with other boars they produced large litters of healthy pigs. This is but one of many similar cases. It is to be particularly noticed that the later products of this inbred race were many of them idiotic, and I would particularly insist on the fact that not only are the mental qualities among the first and most affected by inbreeding, but that the resulting mental derangement is almost always in the direction of idiocy. Thus of 3,822 children of near kin reported by Dr. Bemiss, 447 were either idiotic or deaf and dumb, and only 36 were insane. Now, according to the general proportion of the number of insane to that of the sane population, 11 of these may be accounted for by general causes, leaving only 25 whose insanity can be strictly attributed to the consanguinity of their parents. The testimony of all breeders agrees that with inbreeding vigour and robustness are lost, and the want of these qualities is the physical counterpart, as it is also the physical accompaniment, of idiocy.

Second as to dissimilarity. That a certain minimum degree of dissimilarity between the parents is necessary for the production of any offspring is another way of stating the foregoing proposition. With a greater dissimilarity between

the parents the offspring are larger and more vigorous than either of them; with a still greater degree the offspring become infertile, and with parents more dissimilar still, no offspring is produced.

The testimony of all who have had experience in the matter is absolutely unanimous as to the truth of these propositions, and innumerable cases of the most convincing character have been recorded. Whenever a stock has been deteriorated by inbreeding, a cross with a distinct race *invariably* produces a sudden increase in their size and vigour. The benefit arising from introducing "new blood" has become proverbial. The case of the pigs previously related may be adduced as an example, and the following instance is highly characteristic:—A race of fighting cocks which had been inbred until they had lost their disposition to fight, and stood to be cut up without making any resistance (observe the character of the mental defect), and were so reduced in size as to be disqualified for the best prizes, on being crossed resumed at once their former courage and weight. The most incontrovertible evidence, however, is that expressed by money value, and it is well established that for the purposes of the butcher—that is, for size, weight, and early maturity—the value of cross-bred animals is indisputably greater than that of pure stock. The beneficial effect of crossing varieties of fruit-yielding plants has been described by experienced gardeners as "astonishing."

As the dissimilarity between the parents increases these effects remain, but fertility is diminished, and at length lost. There is abundant evidence that when species—that is, widely dissimilar forms—are crossed, "although size, vigour, precocity, and hardiness are with rare exceptions gained, fertility is in a greater or less degree lost." As to the loss of fertility, so true is this, that it has been proved beyond doubt that among plants "a series can be formed from species which, when crossed, yield fewer and fewer seeds to species which never produce a single seed, but yet are affected by the pollen of certain other species, for the germen swells," and so on to species so divergent that not even this small result is produced.

It is particularly to be noticed that while in inbreeding the bodily and mental vigour deteriorate together with, or even before, the fertility, in cross-breeding the bodily vigour and size of the offspring are almost always maintained, or even increased, and the fertility alone suffers, first in the

remote offspring, then in nearer, then in the immediate offspring, and lastly in the parents themselves.

Besides the increase in size and vigour, and the decrease in fertility, there are certain other results of crossing—that is to say, of the union of widely dissimilar parent forms—which must be borne in mind.

The first of these is the production of Reversion, which, as has already been noticed, is a frequent result of crossing. Mr. Darwin gives many wonderful instances of this occurrence, which he was himself the first to establish. He "selected long-established pure breeds of fowls in which there was not a trace of red, yet in several of the mongrels this colour appeared, and one magnificent bird, the offspring of a black Spanish cock and a white silk hen, was coloured almost exactly like the wild *Gallus bankiva*. All who know anything of the breeding of poultry will admit that tens of thousands of pure Spanish and pure white silk fowls might have been reared without the appearance of a red feather." And, it may be added, would agree that hundreds, and perhaps thousands, of generations must have intervened between the wild *Gallus bankiva* and the bird which so resembled it. Again, some breeds of fowls have lost the instinct of incubation, yet when two such breeds are crossed the instinct reappears, and the mongrel sits, says Mr. Tegetmier, "with remarkable steadiness." Professor Jaeger crossed the Japanese or masked pig with the common German breed, and the offspring were intermediate in character. He then recrossed these mongrels with the pure Japanese, and in the litter thus produced one of the young resembled in all its characters a wild pig. It is to be noticed that in all these cases in which reversion follows crossing, the offspring reverts to a far distant ancestor common to both the parents, and in the case of domesticated animals usually to the original feral ancestor.

The second of the incidental or occasional effects of crossing is included by Mr. Darwin as a particular case in the first, but as I wish to lay especial stress upon it, I consider it separately. It is this:—When a domesticated animal is crossed with a distinct species, whether this is a domesticated or only a tamed animal, the hybrids are often wild to a remarkable degree. This has been noticed in the cases of pigs, goats, ducks, cattle, fowls, and other animals. Mules, it is true, are not at all wild, but they are notorious for obstinacy and vice. These facts, Mr. Darwin goes on to say,

"remind us of the statements so frequently made by travellers in all parts of the world on the degraded state and savage disposition of crossed races of man." Livingstone remarks that halfcastes are much more cruel than the Portuguese. An inhabitant remarked to Livingstone, "God made the white men, and God made the black men, but the devil made the halfcastes."

These two laws,—the Law of Inheritance, and the Law of the Limited Dissimilarity of Parents,—and the subordinate propositions stated in connection with them, represent the conclusions which have been inductively reached through the labours of many observers upon the subject of Heredity. Such obvious limited applications of them to the purposes of the alienist as have from time to time presented themselves have been noticed in passing, but before any general application can be made it is necessary to go back to more general principles, and discover deductively a wider significance.

By a pure race is meant a race the individual members of which are closely alike, and transmit their characters unchanged to their offspring—that is to say, it is a race whose characters do not materially alter either among contemporary individuals or in successive generations; and, further, the characters proper to one individual, save only those which pertain to the successive stages of life, do not alter. But if an aggregate of any kind does not alter, it is because its parts are equilibrated to one another, and the aggregate itself is stably arranged with respect to surrounding conditions. For if the forces acting on the several parts are not in equilibrium, the parts will move relatively to one another, and will so alter the aggregate; and if the forces acting on the aggregate are not in equilibrium, then will it move in the direction of their resultant; and if it move, the incidence of the forces upon it will be altered, and these forces, acting in new ways, will, if the aggregate be plastic, alter the disposition of its parts. Hence, if a race does not vary, its component individuals are in a condition of stable equilibrium, and the race, as a whole, is equilibrated to its environment; and if the individual members of a race do not vary, their structures are in a condition of stable equilibrium, and the individual, as a whole, is equilibrated to his environment.

Now, the approach towards general equilibrium in organisms has been shown by Mr. Herbert Spencer ("Principles of Biology," Vol. I., p. 274, *et seq.*) to be accompanied

by an approach towards molecular equilibrium in them. Hence we must expect to find that the purer a race is maintained, and the more fixed and permanent the characteristics of its component individuals, the more evidence will there be of molecular equilibrium in its tissues, and the less evidence of a store of unbalanced molecular forces. We have therefore to inquire—First, What is the general effect,* on an aggregate, of a large amount of motion among its molecules? and second, What is the particular effect in the case of the nervous system?

When oxygen and hydrogen are mixed together they will remain in contact for an indefinite time unchanged if undisturbed, but if by the electric spark a violent commotion is produced among their molecules, they combine chemically to form water. Conversely, water will stand unchanged in a closed vessel for an indefinite time, but if by an electrolytic current a sufficient amount of motion is produced among its molecules, they are decomposed into oxygen and hydrogen. If lead is heated in air, it combines with the oxygen to form plumbous oxide or litharge, and if this oxide is further heated in the presence of the sulphide, the oxide is decomposed, and metallic lead is reproduced. Thus a high degree of molecular motion favours both composition and decomposition—both rearrangement into a more complex disposition and rearrangement into a more simple disposition—according to the other accompanying conditions. "Incident forces work secondary redistributions easily when the contained motion is large in quantity, and work them with increasing difficulty as the contained motion diminishes." Such is the general effect of a large store of molecular motion.

The function of the nerve centres, physically considered, is to store up and expend force, and force is stored up or energy rendered latent by the compounding of matter into complex combinations; and force is liberated by the resolution or decomposition of the complex arrangements into simpler forms. Every muscular contraction is set up by a delivery of force from the nervous centre through a nerve-fibre into the muscle, and every liberation of force by a nervous centre is due to a rearrangement of its molecules into a simpler combination, to be followed normally by a recombination into the more complex form. The more the molecular forces approximate to equilibrium, the more stable

* The general question is dealt with by Mr. Herbert Spencer in his "First Principles," Chap. xiii., from which the description here given is in part reproduced.

will be their arrangements, and the less readily will this decomposition and recombination take place. But we have seen that those organisms approach nearest to molecular equilibrium which are of the purest race and of the least variable characters; hence, when purity of race is pushed to excess, we shall expect to find that muscular movement is conspicuously deficient. Turning back to the facts already recorded, what do we find? We find that "the testimony of all breeders agrees that with inbreeding vigour and robustness are lost;" that is to say, the languid and feeble offspring of an inbred race are incapable of the amount, power, rapidity, and duration of movement normal to the species.

The rapid decompositions and recompoundings which constitute the energizing or discharge of the nervous centres are not the only rearrangements which nervous elements undergo. The evolution of the organism from the minute and almost homogeneous germ to the condition of full maturity is, under one aspect, a continuous building up of simpler structures into more and more complex forms, and the latest and most highly evolved, which are also the most complex arrangements, are the nervous arrangements which underlie the highest mental qualities, and these highest nervous arrangements are not complete until an advanced stage in the life of the organism. Now, we have seen that "incident forces work secondary redistributions easily when the contained motion is large in quantity, and work them with increasing difficulty as the contained motion diminishes." In an organism which contains but little molecular motion, whose molecules are in a condition of approximately stable equilibrium, the opposition to the rearrangement of the molecules will be greater than in one which is more mobile; and it is evident that, as a less amount of movement is required to effect a simple rearrangement than is required to effect a complex rearrangement, those rearrangements which will be most difficult to effect, and which will most likely fail to be effected in a stably equilibrated organism, will be the most complex arrangements of all; that is to say, those which underlie the highest mental qualities. But an individual in whom the highest mental qualities are undeveloped is a person of low intelligence, and an individual in whom many of the topmost strata of nervous arrangements are wanting is an idiot. Hence, as purity of race, or, in other words, inbreeding, is pushed to excess, we shall expect to find first low intelligence and then idiocy. In collecting the ascer-

tained facts of interbreeding we found that while there was much difference of opinion as to whether the marriages of cousins produced any mental effect in the offspring, opinion was unanimous that when such an effect did result, the mental aberration was in the direction of idiocy; and, moreover, the feebleness, the languor, and the diminution in size of inbred animals were pointed out to be the physical counterpart, as they are also the physical accompaniments, of idiocy.

Furthermore, not only are the parts of the inbred organism equilibrated to one another, but the organism, as a whole, is equilibrated to its environment. The race having been exposed to the same set of incident forces through many generations, has gradually been moulded into more or less complete conformity with them, so that continually recurring similar sets of conditions in the environment produce continually recurring similar reactions of the organism. The nerve currents in the nervous centres continually following in the same paths, will more and more tend to become limited to those paths, new combinations will become increasingly difficult; and as on the one hand the movements of the organism will become more and more automatic, so on the other its intelligence will tend more and more to crystallize into instinct.*

If the organism thus stably constituted is subjected to a change in its environment, the necessary adaptation to this change of circumstances will take place slowly and with difficulty, and if several sets of new conditions follow one another with some rapidity, the sluggishly changing organism will fail to keep pace with them, and must be artificially protected, or it will perish. Hence we expect to find inbred races wanting in constitutional adaptability or hardiness, and reference to the recorded facts shows that this is precisely what we do find. †

* It would be out of place, in a work dealing with the individual organism, to follow these consequences to their operation among races of men, or social organisms. It will be enough to instance the small community of Andorra in the Pyrenees, numbering about 8,000 people, who not only refuse to marry outside of their community, but among themselves marry only their equals in rank, and who are described as an "unchanged and unchanging people." That the Chinese also have approached equilibratum is seen both in their remarkable facial similarity and in the fixed character of their institutions.

† It is true that Mr. Herbert Spencer says that while mixed breeds are of larger growth, pure breeds are more hardy, but the whole of Mr. Darwin's evidence is strongly opposed to this view, and as Mr. Spencer merely mentions it very incidentally, without in any way insisting upon it, or adducing any evidence, I think that the opposite view may be taken as the established one.

It may here be inquired very pertinently, Why, since inbreeding to the continued degree which alone is known to be harmful is admittedly so rare in the human race that for practical purposes it does not exist, is it necessary to enter upon so elaborate an argument to trace out its consequences? It may be answered that if inbreeding is extremely rare, crossing in various degrees is extremely common, and the consideration of the one forms a necessary preliminary to the consideration of the other; but the real necessity for this inquiry is that the principles thus arrived at, with their complements, to be presently considered, underlie the whole fabric of alienism, just as the alteration of the nervous processes underlie the whole circumstances of insanity, and that it is of profound importance to have them firmly established and vividly presented.

We have seen that inbreeding, or the union of closely similar forms, and crossing, or the union of widely dissimilar forms, have this in common, that if pushed to an extreme degree they both alike result in the extinction of the race. It is manifest that this result must be arrived at in very different ways in the two cases, and it is further manifest, *a priori*, that the process of extinction in the one case must be the converse of that in the other.

A number of cubes can be built up into a rectangular solid, which is an aggregate on the one hand of very regular form, and on the other hand of very great stability. Similarly a number of balls can be piled into a pyramid, which also is an aggregate both of very regular form and of very great stability. But if the balls and the cubes are mixed together, not only is it impossible to build the heterogeneous units into an aggregate of regular shape, but the irregular aggregate formed by them will much more easily suffer disturbance of its arrangement than either of the aggregates of similar units. It is a more unstable aggregate. What is true of those widely unlike units is true in a less degree of less widely unlike units. "That units of like forms can be built up into a more stable aggregate than units of slightly unlike forms, is tolerably manifest *a priori;* and we have facts which prove that the mixing of allied but somewhat different units, *does* tend to comparative instability. Most metallic alloys exemplify this truth. Common solder, which is a mixture of lead and tin, melts at a much lower temperature than either lead or tin. The compound of lead, tin, and bismuth, called 'fusible metal,' becomes fluid at the temperature of boiling water, while the temperatures at

which lead, tin, and bismuth become fluid are respectively 612°, 442°, and 497° F." The meaning of these facts, in general terms, is that "the maintenance of a solid form by any group of units, implies among them an arrangement so stable, that it cannot be overthrown by the incident forces. Whereas the assumption of a liquid form, implies that the incident forces suffice to destroy the arrangement of the units."

Just as we found, therefore, that an individual of pure or inbred race, being formed by a union of like units, was of markedly stable organization; so we may expect to find that an individual of mixed race, being formed by a union of widely unlike units, is of markedly unstable organization. The previous discussion will show us where to look for the evidences of this instability.

An unstable molecular arrangement will be one which readily allows of rearrangement. Hence we shall expect to find evidence of abundance of those smaller and more temporary decompositions and recombinations which accompany, and, in a sense, cause the storage of force, in and its reliberation from the nervous centres. They will not only be more numerous, but they will be more rapid, will be more readily set going, and will be started by smaller disturbances.

Such organisms will, therefore, display great activity. They will possess great energy and plenty of muscular movements; and correspondingly we found that by crossing "size and vigour"—that is to say, the amount, force, and rapidity of movement—"are invariably increased." "The evidence," says Mr. Darwin, "is abundant." It "rests on the universal testimony of breeders." When domesticated animals are crossed, the offspring are often "wild to a remarkable degree," and the most conspicuous difference between wild and domesticated animals is the immensely greater activity of the lives led by the former. It should be mentioned, moreover, that this peculiarity has been noticed chiefly in those animals—pigs, goats, ducks, fowls, and cattle—which, when domesticated, lead indolent, inactive lives.

Again, since the nervous processes underlie and elicit the mental processes, we shall expect to find, that as the mental peculiarities displayed by inbred animals are negative defects—qualities, that is to say, which imply defective activity of the nervous processes—so the mental peculiarities displayed by cross-bred animals will be qualities of markedly positive character—qualities, that is to say, which imply ready mobility, ease of rearrangement, and powerful action of the

nervous elements; and which show themselves in ready reception of impressions, complex combination of them, and in a response to them by movement which is either complex or strongly energetic, or both. This reasoning is corroborated by the recorded facts. Thus the wildness, which from one aspect is the liberation of a greater amount of movement, is from another aspect greater wariness and watchfulness, a keen perception of slight impressions, and a quick and energetic response to them. The fighting cocks which became so stupid and cowardly when inbred, regained by a cross not only their size, but their courage and fighting qualities. The inbred races of pigs not only recovered by crossing their size and fertility, but lost their taint of idiocy. The notorious obstinacy and vice of mules, and the cruelty and viciousness of halfcaste men, have in common this character of positive activity.

Then, since the greater store of molecular activity possessed by a member of a crossed race will render equilibration in all its forms more difficult, the equilibration between assimilation and waste will be retarded, and the longer preponderance of assimilation will result in larger growth. This retardation of the completion of structure will allow more time for the most complex arrangements—those of the highest nervous centres—to take place, and as we have seen that a greater mobility favours a more complex combination, these arrangements will be facilitated in two ways, and hence will be rendered much more likely to occur.

So far we have considered the effects of crossing on the organization of the progeny; we have still to consider its effects upon the adaptation of the progeny to the environment. We have seen that a pure race—that is, a stable race—is one that has arrived at an equilibrium with surrounding conditions, one whose structures and functions are thoroughly adapted to the actions and reactions of its environment. If this race is crossed, its union with a dissimilar form will produce a new offspring, differing from both parents, and not only this, but, as we have seen, the offspring is likely to differ much more widely from each of the parents than the parents differ from each other. Hence neither of the environments of the parent races, to which they have become equilibrated by a long process of adaptation extending over many generations, will be suited to this new and different organism. Either, therefore, the new organism must migrate in search of a new environment, or

it must readjust itself to that in which it is placed. Since the qualities of this new individual are, as the laws of heredity necessitate, the result of a totally irregular and quasi-haphazard intermingling of the qualities, patent and latent, of its parents, which are themselves equilibrated to different environments, the chances will be infinitely opposed to its discovering an environment exactly suited to it, even if it do migrate, and in many cases circumstances will prevent migration. Hence in many cases the sole, and in all cases the chief, method of bringing about readjustment must be by the organism seeking a new environment in the locality in which it finds itself. Here it will be brought into competition, in its struggle for life, with the parent races; and since, by hypothesis, they are equilibrated to their respective environments, the hybrid will have no chance against them in those environments; neither will it have any chance against organisms occupying simpler environments in the same locality, for it is the stress of the more arduous struggle for existence in these lower grade environments that has compelled the parent races to emerge into a more complex environment, in which the struggle is less keen. If the parents cannot exist in a less complex environment, *a fortiori* the offspring cannot. There remains, then, but one alternative—the hybrid must adapt itself to more remote, more discrete, and more complex environmental conditions. An adjustment to such conditions requires on the part of the organism a perception and discrimination of slighter impressions, a more highly complex combination of impressions, and acts more complex and more enduring; and we have already seen that the conditions for attaining the complex rearrangements of nervous processes which fulfil these requirements, are present to an eminent degree in organisms the result of crossing. But these highest and most complex nervous processes are the substrata of mind, and the more complex the processes the higher the degree of intelligence. Hence this readjustment of the hybrid to its environment is accompanied by an increase of intelligence, a result which might have been arrived at directly by remembering that an extension of the correspondence between the organism and its environment *is*, from one point of view, an increase of intelligence on the part of the organism. Hence it appears that the union of widely dissimilar organisms produces both a tendency to, and a necessity for, increased intelligence on the part of the offspring.

This is the physiological side of the subject. It is necessary to examine now its pathological aspect, and inquire how far these conclusions afford data to the alienist.

It has been shown that the conclusions reached deductively harmonise with the conclusions reached inductively, and that both are supported by a powerful body of evidence, in showing that the offspring of widely dissimilar parents have a more unstable molecular constitution, and especially a much more unstable molecular arrangement of the nervous centres, than the offspring of two closely alike individuals. An unstable molecular arrangement is one that readily lends itself to rearrangement, either in the direction of recompounding, on the one hand, or of decomposition on the other.

If decomposition and recompounding take place with rhythmical alternation in small oscillations about a fixed mean, there results simple activity of function. If, in addition to these small changes, there is a large and general movement in the direction of recompounding into higher and higher orders of complexity, there results increase of intelligence. If the decomposition outbalances the recompounding, so that the mean state of complexity is lowered, there results diminution of intelligence. The form that this diminished intelligence takes need not be here entered on in detail, but since every subsidence of matter from a more complex into a simpler form is attended by a liberation of motion, it will be found that generally, if the decomposition of the nervous centres is very gradual, the contained motion is liberated too slowly to propagate currents along the nerves,* and the inactive and progressive condition of dementia results. If the decomposition is rapid, the motion is liberated more rapidly, the muscular action is considerable, and the result is mania. If the decomposition is sudden, the motion is liberated suddenly, the muscular action is enormous, and the result is epilepsy.

Not only are the nervous arrangements of a mixed-bred race more unstable, and *ipso facto* more easily decomposed than those of a pure race, but, as has been shown, the

* It is too well known to be more than mentioned that it is only a sudden change at the central end of a nerve that will cause a shock to be delivered along it to the muscle. A powerful continuous current may be sent along the nerve without effect on the muscle. It is only when the current is made or broken that a contraction ensues, and the more sudden the make or break the more vigorous—other things being equal—is the contraction.

offspring of cross-bred individuals must seek new conditions of life, and must therefore be exposed to more numerous and more various incident forces, so that its nervous arrangements are not only more easily disturbed, but are more exposed to disturbing agents.

Lastly, as it is compelled to readjust itself to a new environment, not only will its nervous arrangements be more unstable, but they will be actually in course of rearrangement, and will on that account be additionally susceptible to disturbance from without, just as an invasion is more dangerous to a nation which is already undergoing an internal revolution.

The bearings of the Law of Limited Dissimilarity on the data of alienism, as ascertained by the foregoing chain of reasoning, may therefore be summed up as follows:—

The offspring of closely similar parents will be liable to be incompletely developed, and especially to that incomplete development of the higher nervous centres, which results in idiocy; but if they become completely developed, they will be little liable to insanity.

The offspring of widely unlike parents will tend to be of high intelligence, and they will also be prone to insanity.

Thus do the deliberate reasonings of philosophy tardily overtake the poetical intuition which led Dryden to say two centuries ago—

> Great Wits are sure to madness near allied,
> And thin partitions do their bounds divide.

Some Observations on the State of Society, past and present, in Relation to Criminal Psychology. By David Nicolson, M.D., Deputy Superintendent, State Criminal Lunatic Asylum, Broadmoor.

(*Continued from p.* 16.)

I have sought to point out and to illustrate how all-pervading was the hold which the belief in witchcraft obtained upon all classes of society in the sixteenth and seventeenth centuries. I have pointed out how a species of criminal lunacy arose in connection with this belief; and how in the same connection, society might be said not only to have created a crime, but also to have manufactured the criminals.

All the records of the trials for witchcraft speak to the

domination of the Church at this time; for her *will* had but to be expressed in order to ensure obedience, seeing that the Church and the Law were, as I have already said, hand and glove in the matter of witches, sorcerers, and the like. It is well that this fact should be borne in mind, for it will be useful as a point of contrast in comparing the character and proportion of the elements of which the machinery of social life is made up at different epochs. The whole question would deal with the varying proportions at different times of such elements and such influences as ecclesiastical dogma, teachings of moral philosophy, teachings of natural science, public opinion, medical science, &c., whether taken in relation to each other or to the law of the land. Meanwhile, to take one point of contrast: at this time the voice of the Church was all in all, the teaching of psychological medicine was nowhere; the influence of the one was at boiling point, while that of the other was at zero. We have seen with what fatal success pope and presbyter alike issued their bulls and pulpit fulminations, exercised their inquisitorial powers, and plied their inhuman tortures. We almost never hear of the physician.

The hysterical screechings and accusations of the Impostor of Bargarran brought seven human beings to the stake. In connection with the trial, we are told that the presbytery ordained a public fast, and that relays of clergymen and other pious Christians attended the afflicted damsel in the expiatory office of fasting and prayer; but there is no word of the family doctor being called to give his opinion of the convulsive attacks and of the spitting up of egg shells, cinders, and crooked pins!

In this relation let us take the following case, from the commentary appended to Beccaria's "Essay on Crimes" (4th edition, 1785.)

> In the year 1652, a country woman, named Michelle Chaudron, of the little territory of Geneva, met the Devil in her way from the city. The Devil gave her a kiss, received her homage and imprinted on her upper lip, and on her right breast the mark which he is wont to bestow upon his favourites. This seal of the Devil is a little sign upon the skin, which renders it insensible, as we are assured by all the demonographical civilians of those times. The Devil ordered Michelle Chandron to bewitch two young girls. She obeyed her master punctually: the parents of the two girls accusing her of dealing with the Devil. The girls being confronted with the criminal, declared that they felt a continual prickling in some parts of their bodies, and

that they were possessed. Physicians were called in, at least men that passed for physicians in those days. They visited the girl. They sought for the seal of the Devil on the body of Michelle, which seal is called, in the verbal process, the *Satanical mark.* Into one of these marks they plunged a long needle, which was already no small torture. Blood issued from the wound, and Michelle testified by her cries that the part was not insensible. The judges not finding sufficient proof that Michelle Chaudron was a witch, ordered her to be tortured, which infallibly produced the proof they wanted. The poor wretch, overcome by torment, confessed at last everything they desired.

The physicians sought again for the Satanical mark, and found it in a little black spot on one of her thighs. Into this they plunged their needle. The poor creature, exhausted and almost expiring with the pain of the torture, was insensible to the needle, and did not cry out. She was instantly condemned to be burnt; but the world beginning at this time to be a little more civilized, she was previously strangled.

It is surely not difficult to trace the *criminality* in such a transaction as this to the social system under which its occurrence was rendered possible; a system whose humanity began and ended by giving its innocent victim, already almost tortured out of life, the privilege of being strangled before her body was burnt at the stake.

If even we grant the existence of witches, the possibility and the criminality of witch*craft*, and the social right to put witches to death, what are we to think of the character of the evidence brought in support of the criminal charge and of the means used to establish guilt?

But the case of Michelle Chaudron is noteworthy from the fact that "physicians were called in," or, as our author is careful to put it, "at least men that passed for physicians in those days."

We are not told what was the professional or social standing of the physicians in this particular case, but it is to be remarked that in trials for witchcraft medical testimony was almost never forthcoming. And why was this so?

Not, presumably, because physicians denied the existence of witches or witchcraft, and therefore were rendered incompetent or biased as witnesses. Is it not more likely that witchcraft and its kindred crimes were looked upon (as indeed, as a matter of fact, they *were*), as being, in their relations, altogether beyond the province of medical science?

Witchcraft was a crime created by society—a phantom

born of superstition, ignorance, and the fiery jealousy of ecclesiasticism.

In individual cases the question to be answered was not, Is this witchcraft, or is it hysteria? is this witchcraft or is it madness? for in that case medical evidence might have been useful in testifying either to the presence or absence of hysteria or madness. The authorities in those days did not wish to have the presence of hysteria or insanity proved in a person accused of witchcraft or heresy. All they wanted to know was, is this witchcraft or is it nothing? They had no difficulty in satisfying themselves that it was not nothing. And if it was not nothing it must be witchcraft. On such a programme the presence and evidence of medical men were rendered unnecessary. There can be little doubt that if they had been consulted, any *bonâ fide* evidence that they would have given would have proved unwelcome to the authorities in such an age, and would have been attended with no little personal risk and future professional sacrifice, for the semblance of sympathy with persons accused of witchcraft was treated with the same severity as the crime itself.

True, as in the case of Michelle Chaudron, physicians may have sometimes been used as convenient tools for carrying out the vivisection test which the clergy themselves as a rule preferred to apply. Be that as it may, we have abundant testimony to show that such "lights" as Matthew Hopkins in England, "witchfinder general," and John Bain and Andrew Man in Scotland, "common prickers," were the "experts" in criminal psychology of those days. This worthy, John Bain, at the trial of a poor woman in Scotland, swore that as he passed her door he heard her talking to the devil. She said, in defence, that it was a foolish practice she had of talking to herself, and several neighbours corroborated her statement, but the evidence of the pricker was received. He swore that none ever talked to themselves who were not witches. The devil's mark being found upon her, the additional testimony of her guilt was deemed conclusive, and she was "convict and brynt." (Mackay.)

Matthew Hopkins, the psychological clodhopper, after a very successful time, was ultimately "hoist with his own petard," for the populace discovering that he found out witches "not by God's aid but by the devil's," made an end of him by applying his own test to him. They stripped him, tied his toes and thumbs together, and flung him into a pond.

Butler, in his "Hudibras," has thus summed up Matthew and his tricks :—

> Hath not this present Parliament
> A lieger to the devil sent,
> Fully empower'd to treat about
> Finding revolted witches out?
> And has he not within a year
> Hang'd threescore of them in one shire?
> Some only for not being drown'd,
> And some for sitting above ground
> Whole days and nights upon their breeches,
> And feeling pain were hang'd for witches.
> And some for putting knavish tricks
> Upon green geese or turkey chicks;
> Or pigs that suddenly deceased
> Of griefs unnatural, as he guess'd;
> Who proved himself at length a witch,
> And made a rod for his own breech.

It is to the credit of the medical profession that almost the only recorded instance of a reference to a medical board, while execution for witchcraft was so rife, ended in the acquittal of the accused on mental grounds. The following is the narrative as given by Mackay ("Extraordinary Popular Delusions"), who takes it from the record of Pierre Pifray, surgeon to the King of France, and one of the commissioners.

In the midst of these executions rare were the gleams of mercy. Few instances are upon record of any acquittal taking place when the crime was witchcraft. The discharge of fourteen persons by the parliament of Paris, in the year 1589, is almost a solitary example of a return to reason. Fourteen persons condemned to death for witchcraft appealed against the judgment to the parliament of Paris, which for political reasons had been exiled to Tours. The Parliament named four commissioners—Pierre Pigray, the king's surgeon, and Messieurs Leroi, Renard, and Falaiseau, the king's physicians—to visit and examine these witches, and see whether they had the mark of the devil upon them. Pigray, who relates the circumstance in his work on Surgery (book vii. chap. 10), says the visit was made in presence of two counsellors of the court. The witches were all stripped naked, and the physicians examined their bodies very diligently, pricking them in all the marks they could find to see whether they were insensible to pain, which was always considered a certain proof of guilt. They were, however, very sensible of the pricking, and some of them called out very lustily when the pins were driven into them. "We found them," continues Pierre Pigray, "to be very poor, stupid people, and some of them insane. Many of them were quite indifferent about life, and one or two of them desired death as a relief from their

sufferings. Our opinion was, that they stood more in need of medicine than of punishment ; and so we reported to the parliament. Their case was therefore taken into further consideration, and the parliament, after mature counsel amongst all the members, ordered the poor creatures to be sent to their homes, without inflicting any punishment upon them."

It is not easy for us now-a-days to imagine what train of thought or argument the clergy used when they fitted their minds up to such wholesale and apparently senseless persecutions. But every allowance has to be made for the fact that they were influenced partly by their early training to accept implicitly the teaching of the Church, and carry out her behests, and partly by the zeal and fanaticism that characterized the whole social mind about this time.

And it is still more difficult for us to understand how trained lawyers and experienced judges could have been carried away into the belief that the guilt of persons accused of witchcraft was established upon evidence of the most flimsy and unreal, and often altogether ridiculous, character. In this matter of evidence, the Royal author, King James, in his work on "Demonology," says that the crime of witchcraft is so abominable that it may be proved by evidence which would not be received against any other offenders — young children, who knew not the nature of an oath, and persons of an infamous character, being sufficient witnesses against them; but lest the innocent should be accused of a crime so difficult to be acquitted of, he recommends that in all cases the ordeal should be resorted to. He advises pricking for the devil's mark, and floating the bodies on the water as good helps in discovering the guilty ones.

The solemnity of the enormous farces that were enacted would tinge the whole subject with humour, were it not for the fearful issues that depended upon the tests applied. The following is an illustration from the "London Chronicle," of February the 27th, 1759 :—

At Wingrove, one Susannah Hannokes, an elderly woman, was accused by her neighbour of being a witch ; for, that she had bewitched her spinning-wheel, so that she could not make it go round, and offered to make oath of it before a magistrate ; on which the husband of the poor woman, in order to justify his wife, insisted upon her being *tried by the church Bible,* and that the accuser should be present. She was conducted by her husband to the ordeal, attended by a great concourse of people, who flocked to the parish church

to see the ceremony, where she was stripped of her clothes to her shift and under petticoat, and *weighed against the Bible!* when to the no small mortification of her accuser, *she outweighed it*, and was *honourably acquitted* of the charge.

Doubtless many honest minds rebelled at the thought of so many prosecutions and trials, and so many convictions upon ridiculous evidence, but it was dangerous for them to speak out. When, at the end of the sixteenth century, Scot and the physician Wierus expressed their disbelief in witches and witchcraft, they were taken sharply to task by King James (in his "Demonology") for their "damnable opinions."

Slow indeed was the progress of enlightenment, and not till the middle of the seventeenth century could it be said that "the torch of science" was fairly lighted.

By the founding of the Royal Society in 1652, the intellect of the educated classes in England proclaimed that it would no longer be stifled by the vapours of superstition.

Buckle ("Hist. of Civilization," vol. i., p. 363), says in a footnote that "One of the most curious instances of the intellectual progress of the time may be seen in the destruction of the old notions respecting witchcraft. This important revolution in our opinions was effected, so far as the educated classes are concerned, between the Restoration and the Revolution; that is to say, in 1660 the majority of educated men still believed in witchcraft, while in 1688 the majority disbelieved."

It was in 1664, as we have seen, that Sir Matthew Hale, as Chief Baron, tried two women for witchcraft, and said to the jury, "that there are such creatures as witches, I make no doubt at all," &c. He secured their conviction and execution. Between 1694 and 1701 Chief Justice Holt tried eleven cases of witchcraft, and by appealing to the common sense of the jury, he succeeded in securing the acquittal of every one of the accused.

Nevertheless as late as 1716, a woman and her daughter were hanged at Huntingdon for selling their souls to the devil, &c. This would appear to have been the last judicial execution for witchcraft in England.

It was not till 1822 that the last execution took place in Scotland. It is thus referred to by Sir Walter Scott ("Demonology and Witchcraft"). "A sheriff-depute of Sutherland, Capt. David Ross of Littledean, took it upon him in flagrant violation of the then established rules of

jurisdiction, to pronounce the last sentence of death for witchcraft which was ever passed in Scotland. The victim was an insane old woman belonging to the parish of Loth, who had so little idea of her situation as to rejoice at the sight of the fire which was to consume her. She had a daughter lame of both hands and feet, a circumstance attributed to the witches having been used to transform her into a pony and get her shod by the devil." The son of this daughter was also lame.

Throughout his "Letters on Demonology and Witchcraft," Sir Walter Scott repeatedly alludes to the weak and distracted state of mind in which those suspected were doubtless often found to be. And he quotes from the work on "Criminal Law," written in 1678, by Sir G. Mackenzie, the Lord Advocate. This book contains many judicious reflections on the subject of witchcraft in which he himself was a believer; and his practical experience as a judge entitles him to a hearing. He says—"The persons ordinarily accused of this crime are poor ignorant men, or else women, who understand not the nature of what they are accused of; and many mistake their own fears and apprehensions for witchcraft, of which I shall give two instances. One, of a poor weaver, who after he had confessed witchcraft, being asked how he saw the devil, made answer, 'Like flies dancing about the candle.' Another of a woman who asked seriously, when she was accused, if a woman might be a witch and not know it? And it is dangerous that persons, of all others the most simple, should be tried for a crime of all others the most mysterious. These poor creatures, when they are defamed, become so confounded with fear, and the close prison in which they are kept, and so starved for want of meat and drink, either of which wants is enough to disarm the strongest reason, that hardly wiser and more serious people than they would escape distraction." And more to the same effect.

Mackay ("Extraordinary Popular Delusions") gives the following account of an outbreak of the witch mania:—"In New England the colonists were scared by stories of the antics of the devil. All at once a fear siezed upon the multitude, and the supposed criminals were arrested day after day in such numbers that the prisons were found too small to contain them. A girl named Godwin, the daughter of a mason, who was hypochondriac and subject to fits, imagined that an old Irishwoman, named Glover, had bewitched her. Her two brothers, in whose constitutions there was appa-

rently a predisposition to similar fits, went off in the same way, crying out that the devil and dame Glover were tormenting them. The supposed witch was seized, and as she could not repeat the Lord's Prayer without making a mistake in it, she was condemned and executed. . . . . Suddenly two hysteric girls in another family fell into fits daily. The feeling of suffocation in the throat, so common in cases of hysteria, was said by the patients to be caused by the devil himself who had stuck balls in the windpipe to choke them. They felt the pricking of thorns in every part of the body, and one of them vomited needles. The case of these girls, who were the daughter and niece of a Mr. Parvis, the minister of a Calvinist chapel, excited so much attention that all the weak women in the colony began to fancy themselves similarly afflicted. The more they brooded on it the more convinced they became. The contagion of this mental disease was as great as if it had been a pestilence. . . . . Where there were three or four girls in a family they so worked each upon the imagination of the other, that they fell into fits five or six times a day. . . . . More than two hundred persons named by these mischievous visionaries were thrown into prison. They were of all ages and conditions of life, and many of them of exemplary character. No less than nineteen were condemned and executed before reason returned to the minds of the colonists. The most horrible part of this lamentable history is that among the victims there was a little child only five years old. Some women swore that they had seen it repeatedly in company with the devil, and that it had bitten them often with its little teeth for refusing to sign a compact with the evil one. It can hardly increase our feelings of disgust and abhorrence when we learn that this insane community actually tried and executed a dog for the same offence!"

I have now sketched out some of the relations of a belief in witchcraft in regard to the social and domestic history of the past. I have shown how that belief was extinguished in the advance of science and culture, just as darkness flies at the rising of the sun.

We have had ample evidence that the belief took its origin in ecclesiastical misgiving and jealousy. And we have seen that the position of those who were unfortunate enough to be accused of exercising the craft arose more immediately from some of the following kind of causes:—

1. Simple imagination on the part of Church authorities or others.

2. Personal grudge or maliciousness.
3. Imposture.
4. Morbid mental states: hysteria, imbecility, mumbling dotage, epilepsy or insanity, acting in one of two ways, viz., *a*, directly by drawing attention to self; *b*, indirectly, by drawing attention to others; the object of attention becoming the person accused.

I shall next deal with other judicial modes of trial which have been resorted to in the past, and which further illustrate the days when superstition reigned under the sanction of the Law.

(To be continued.)

The Philosophy of Restraint in the Management and Treatment of the Insane. By Robert W. D. Cameron, M.D., Medical Superintendent, Midlothian District Asylum, Rosewell, Edinburgh.

(*Concluded from p.* 356.)

Chemical Restraint.

There is a very general impression among members of the medical profession abroad that it is only by the free use of stupifying drugs that British alienists are able to dispense with the use of mechanical appliances in the management of the insane. It cannot be gainsaid that, by the use of toxic remedies, noisy and violent patients may be as effectually controlled for the time being as by any species of mechanical appliance; nor can it be denied that in many of our asylums narcotics and sedatives are employed in such doses, so continuously, and for such purposes as to justify the appellation of "chemical restraint." But there are no facts to bear out the assumption that it is by excessive drugging we are enabled to avoid the use of restraining apparatus in our asylums. On the contrary, there is incontrovertible evidence to show that in foreign asylums where mechanical restraint is extensively practised, chemical restraint is likewise employed to an extent not thought of in this country. Dr. Wilbur* has been at pains to collect statistics for purposes of comparing the relative extent to which mechanical and chemical restraint is carried in British and

* "Archives of Medicine," vol. vi., No. 3, December, 1881. Article on Chemical Restraint in the Management of the Insane, by H. B. Wilbur, M.D.

American asylums. The result of his investigation clearly shows that in British asylums and in the few American asylums conducted on non-restraint principles, chemical restraint is not the substitute or alternative for mechanical restraint, but that, on the contrary, the general rule seems to be: the more mechanical restraint, the more chemical restraint.

I am constrained by the result of my own experience to confess that I have seen no beneficial results to follow the continuous use of sedative drugs that could fairly be attributed to those drugs, and I believe, despite the praise so lavishly bestowed on some remedies of this kind, that the improvement said to follow their use would be quite as apparent had these remedies been altogether withheld. In the Midlothian Asylum chemical is now as obsolete as mechanical restraint. It is more than a year since I have almost entirely discarded the employment of narcotics for purposes of restraint. Formerly they were used to a considerable extent in the case of turbulent and violent patients, but the experience I acquired of their effects determined me gradually to avoid their use. It may be admitted that there are sometimes indications for the use of narcotics and sedatives in the insane, and doubtless such remedies as chloral, opium, &c., have their advantages when judiciously employed; but it is a common fallacy to suppose that sedatives, or indeed drugs of any kind, have the same value in lunacy practice as they have among a community of sane individuals, for their efficacy in the latter case depends in many instances not so much on the inherent curative properties of the drugs as on the feelings of hope engendered by the patient's faith and confidence in his medical attendant. Lunatics, on the other hand, are usually of a distrustful temperament, and the morbid suspicions of foul play which they so commonly entertain when drugs, and especially powerful narcotics, are administered to them, create an unhealthy condition of mind which cannot fail to detract greatly from any beneficial influence such remedies might be supposed to exert. It is extremely doubtful whether the systematic use of toxic remedies is ever productive of good. That in very many cases they do positive and grievous harm I am quite convinced.

Of late years hyoscyamine has been much used as a sedative in many of our asylums. I have myself had a large experience of its use. It is a powerful drug, usually reliable in its effects, producing in small doses of $\frac{1}{20}$, or even $\frac{1}{30}$ of a grain

of the extract well marked toxic symptoms of a paralytic character. Judged as a means of restraint, it has no equal in the pharmacopœia. If chemical restraint is to be employed among the insane, my experience tells me that hyoscyamine, especially given by hypodermic injection, is at once the safest, the quickest, and the most effectual remedy that can be used. As a curative agent, I believe it is of no value. At one time I used it extensively in the case of noisy, destructive, and violent patients. Of its efficacy in temporarily allaying excitement there can be no question, but that it does any permanent good, except perhaps such as may be claimed in virtue of its moral influence as a form of punishment, I do not believe. I generally preferred to administer it hypodermically, and usually commenced with gr. $\frac{1}{20}$ or gr. $\frac{1}{16}$ of the extract. The effects which I noted correspond in the main with those noted by other observers. They are: A general relaxation of the voluntary and involuntary muscular systems with loss of control over the bladder and rectum; paralysis of the legs with staggering gait and ultimate inability to stand; paralysis of the muscles of articulation manifested by increasing difficulty and finally complete loss of the power of speech, the phenomena being not unlike what are seen in some stages of general paralysis. The pupils are widely dilated. The respirations become slower and deeper. There is usually great flushing of the face. The effect on the heart is very much like that produced by digitalis—the pulse beats are reduced in frequency and increased in strength and volume. The subjective symptoms are impairment of vision, a feeling of dryness and suffocation about the throat, confusion of ideas, delirium with hallucinations deepening into stupor and coma. Small doses of the drug instead of allaying excitement I frequently found merely added fuel to the flame. That this was due to some specific effect of the drug, and did not depend on any feeling on the part of the patient of wounded vanity or chagrin, is borne out by the fact that I observed the same phenomenon to follow when the drug was administered *per orem* without the patient's knowledge as when it was given hypodermically. Although this drug is not without its dangers, I believe it to be very safe in comparison with such drugs as chloral, morphia, and conium. To one not accustomed to see the effects of hyoscyamine the symptoms produced have sometimes a very alarming appearance, especially when the dose has been moderately large, or the

patient unusually susceptible to its influence. The patient lies in a state of profound coma, with swollen livid features, widely dilated pupils, and slow, stertorous, almost convulsive breathing. These symptoms do not usually indicate any real danger to life. It must be remembered, however, that it is with this drug as with most narcotics, while there is speedily a tolerance established, though not, I think, to such an extent as with opium, there are, on the other hand, idiosyncrasies of constitution which render a moderate dose dangerous in one case that in another would be of little avail. This is one of the greatest objections to the use of the drug, as it is indeed to the use of all narcotics. There is another consideration to be kept in view, that the effects of hyoscyamine vary according to the mode of its administration and to the condition of the patient. Generally a dose given hypodermically produces as powerful an effect as twice the quantity given by the mouth. The drug acts more powerfully on a weak or exhausted constitution than on a strong and healthy one, and, when given by the mouth, the effect is greater when the stomach is empty than when it is full. One remarkable feature in the effects produced by hyoscyamine, which is so manifest to every one who has experimented with the drug, is the extreme repugnance with which it is regarded by all who have experienced its effects.

M. N., a patient in the Midlothian Asylum, an intellectual though morally degraded woman who used to have an occasional dose of gr. $\frac{1}{16}$ to $\frac{1}{12}$ administered to her hypodermically, was wont to declare that she had a feeling as if her whole inside was burned up, that her mouth and throat were parched, giving the sensation of a ball of hair sticking somewhere about the fauces and preventing her from swallowing, that surrounding objects swam before her eyes, that she felt quite helpless "to do anything for herself," that she was in a semi-conscious delirium of the most intensely horrible description, seeing shapes and hearing voices she shuddered to think of.

Another female patient, A. B., was treated from time to time with hyoscyamine. She suffered from suicidal melancholia with occasional acute paroxysms of mental agony during which she was extremely noisy and restless, constantly wringing her hands, and eagerly asking for laudanum to relieve her mental distress by putting an end to her existence. The hyoscyamine acted in the usual way, giving an onlooker, by the removal of all outward and visible signs, the impression of restoring mental tranquillity. Nevertheless

the patient, so far from acquiring a liking for the drug, evinced the greatest dread of it. Sometimes, indeed, long after the drug had ceased to be given to her except at rare intervals, did she voluntarily ask for it, but when her wish was about to be gratified her courage failed, and she shrank back in horror, as if the sight of the drug had called up old recollections so vividly that she hesitated to choose between her present mental misery and another experience of her former sensations when under the influence of the poison.

I have said enough to show that the tranquillity produced by hyoscyamine is apparent rather than real, and that its effects when long continued cannot fail to be disastrous. Its only good in lunacy practice must be sought for not in its therapeutic, but in its restraining power, and while it may have its advantages in certain exceptional cases, anything like a routine employment of it must be strongly condemned. I believe its administration in acute cases retards recovery and induces dementia; such at least has been my experience. I have scarcely used any sedatives for more than a year, and they are now practically in complete disuse. While I admit that their occasional use may be beneficial in some cases, I must confess that my experience militates against the opinion that their frequent or continued administration is either beneficial or necessary. I have observed that in the Midlothian Asylum excitement and violence are now as nothing compared with the state of matters that existed when such drugs as chloral, atropia, and hyoscyamine were extensively used. The reports of the Lunacy Commissioners make repeated comments on the remarkable freedom from excitement among the patients. Acute cases are now never treated with sedative drugs, and I am satisfied that recovery is more speedy and certain when other means than drugging are employed for their cure. In the present blind faith in drugs as the panacea for all the ills that flesh is heir to, we have but a surviving remnant of a barbarous superstition that would cure an epileptic by the burial of a live cock, or a madman by causing him to drink of the water of a so-called virtue-well.*

Muscular Restraint.

The part which attendants play in the treatment of lunatics is a very important one, and the value of a good staff in the hands of an asylum superintendent cannot be

* See "The Past in the Present," by Dr. Arthur Mitchell, pp. 265-267.

over-estimated. It is through their agency that it is possible to carry out the individualization of patients, which is so essential to successful moral treatment. Success in asylum practice depends in great measure on the moral influence exercised over the patients by the staff, and it is all-important that this duty should not be left in the hands of ignorant and unsympathetic persons, who, when they find themselves clothed with a little brief authority, are apt to tyrannize over their charge in a manner little conducive to the welfare of the latter. And here is the great difficulty in the treatment of the insane, which tells in an especial manner in pauper asylums where considerations of economy compel the aggregation of large numbers of lunatics. Under proper supervision, however, the ordinary class of persons who become asylum attendants can be made to understand the nature of the relation that is to subsist between them and those they control, and to discharge their obligations in a fairly satisfactory manner. They are a potentiality for good which, when skilfully handled, yields excellent results. It is mainly to the intelligence, tact, and judgment of the attendants, guided and assisted by the higher asylum officials, that we must look for improvement in our present mode of treating the insane. It is only by this means that a graduated system of restraint, moral and physical, can be properly carried out, and in view of the fact that in an aggregation of lunatics we have to do with every possible degree of mental aberration, any means by which we are enabled to meet individual requirements must be carefully fostered. By kindness and firmness on the part of the attendants, most excited patients are calmed down without there being any necessity for recourse to special restraint. But I would not advocate physical force at the hands of attendants in all cases. Their function in this respect ceases when patients are so violent or unmanageable that attempts at personal restraint might be fraught with danger either to the patients or to their keepers. Struggles between patients and attendants should never be permitted to take place; they are unseemly, have a baneful influence on the other patients, and are a fruitful cause of many deplorable accidents. That bruises and broken bones are frequent resultants of such encounters the records of every asylum furnish ample proof. It must be admitted by every one who has had practical experience of insanity that cases of excitement occur now and again which require more than ordinary

coercion. When a patient is violent and destructive something must be done to prevent injury to self and others; and this brings me to the consideration of the next head, viz.:

Seclusion.

There was a time when coercion in the form of mechanical restraint and seclusion, with various kinds of cruel punishment, was the chief means employed in the treatment of the insane. Seclusion has therefore become associated in our mind with a *quondam* system which is now regarded by us with feelings of repugnance; but it behoves us to be careful lest mere prejudice should prevail so far as to make us blind to the merits of seclusion, and forbid its use for no better reason than that it was grossly abused in former times. I have frequently found seclusion to act in a directly beneficial manner, and I think it is a pity that it should be coupled with mechanical restraint in asylum registers as if it were something of a very opprobrious nature. I may here digress to say that no just comparison can be made between the practice pursued in different asylums with regard to the use of restraint when no cognisance is taken of the employment of prostrating drugs. Each dose of hyoscyamine, or chloral, or opium, or whatever remedy be given for the purpose of allaying excitement, should be entered in the Register of Restraint not otherwise than is done when recourse is had to the camisole, or the patient is placed in seclusion. Under present circumstances it is an easy matter, under the guise of medical treatment, to paralyse troublesome patients in an asylum by means of powerful narcotics, and thus present the semblance of disuse of special restraint in the management of the institution. I am satisfied that much harm is done in this way that would be avoided were it frankly avowed that cases occur now and again calling for exceptional restraint, and that it should be the object of asylum superintendents not to make a show of being able to dispense with restraint entirely, but to endeavour to find out in what way restraint may be employed so as to be most beneficial (or it may be least injurious) to the patient's welfare. I have already stated that it is principally to the attendants we must look if we wish to reduce restraint to a minimum, but that their control over the patients should cease at a point where danger to either party is likely to result. In very many cases excitement is quelled by the patients foreseeing the hopelessness of struggling with superior physical force, and

it is this consideration which is taken into account in the stereotyped rule of asylum management that an attendant should never, if possible, struggle single-handed with a lunatic. When a struggle is inevitable, even though there be two or more attendants to cope with the lunatic, it should never be persisted in, and some other mode of restraint should be immediately adopted. The patient may be restrained by mechanical appliances or prostrated by narcotics, but a more humane and less dangerous method of dealing with him, I venture to say, would be to place him in seclusion. When a man is attacked, say with cerebral meningitis, his medical attendant recommends his being placed in a darkened room, and removed from all irritating influences; and in the case of a great number of other bodily ailments the patient voluntarily eschews company, preferring the privacy of his own apartment. Is it likely that among the insane such directly opposite conditions obtain that seclusion must in every case be regarded as an unmitigated evil?

It is in recent acute cases where the patient cannot safely be controlled by attendants that seclusion is of special service. By placing the patient in seclusion in the first instance there is afforded us an opportunity of understanding the nature of the case which is denied by the too prevalent practice of administrating sedative drugs. If narcotics are to be effectual in calming excitement they must be given freely, and it is precisely in recent cases that free drugging with such remedies is fraught with most danger. In chronic cases, on the other hand, where the patient's habits and constitution are known, we may administer narcotics if necessary with a comparatively easy conscience. I do not often find it necessary to resort to seclusion except in the case of recent admissions when the patient is violent and destructive, and I have almost invariably found that after seclusion prolonged for a day or two the patient has so far settled down as to be amenable to ordinary discipline. In cases of recurrent acute mania, where excitement with violent behaviour is the outcome purely of disease, and is beyond the patient's control, as for instance in epilepsy, I prefer resorting to seclusion rather than to any other form of restraint. As a means of discipline in chronic cases where the patient is not entirely bereft of self-control, I regard seclusion as a clumsy and unsatisfactory expedient. For such purposes we have other and more efficacious means which I shall refer to

hereafter. In some cases it is unnecessary to lock the door; the patient lies quietly in bed who would behave in the most violent manner if allowed to associate with other patients. This is especially noticeable in epileptics during the stupor following the fits. In the cases mentioned I have found seclusion to be a positive good, whether regard be had to the patient himself, his fellow sufferers, or his attendants.

The seclusion room should be of ample cubic capacity, well ventilated, and generally lighted. A padded room may on rare occasions be an advantage, as being calculated more effectually to prevent self-injury. It would be well in every case to avoid the use of lock and key. When it is essential to deprive the patient of the power of leaving his room at pleasure an arrangement can easily be made whereby the door may be opened from without in the ordinary way while no means are available to the patient of opening it from within. This may appear to be a trivial matter in view of the fact that the end to be attained is the same whether the means be a key or some other contrivance. But I attach great importance to every means being taken in asylums to eliminate as far as possible in the management of the patients the use of that emblem and harsh reminder of lost liberty and subjection—the lock and key.

I hail as one of the most important advances in modern lunacy practice the system introduced some years ago by Dr. Batty Tuke, known as the "open-door" system. The advantages of having open doors in asylums instead of keeping the doors of the various wards jealously guarded by lock and key are admittedly many and important from the point of view alike of patients and of staff. But it has been objected by some that the system is incapable of general application, and that risks are run by asylum superintendents which they are not justified in courting. My own experience of the open-door system which has been in full operation in the Midlothian Asylum for the last three years, affords to me convincing proof that nothing but good can flow from its adoption. The great advantage of the system is that it removes a form of physical restraint that is imposed on the whole asylum community merely because of the disorderly conduct of a few of their number, and substitutes for it a form of restraint which can be adapted to meet the necessities of each individual case. The attendants are forced to give their constant attention to their charge with the result that excitement is very appreciably diminished and

general contentment promoted. Actual experience has disproved the hypothesis that the adoption of the system would involve additional expense or be attended with a greater number of accidents and escapes; and it is now being very generally recognised by Scotch asylum superintendents that the abolition of locked doors is no more impracticable than was the abolition of walled airing courts and mechanical appliances now in disuse, and that the benefits arising from their discontinuance is quite as great as that which followed the disuse of those other modes of restraint.

Cold Baths, &c.

In the use of cold water we have a most powerful means of restraint. Its efficacy in subduing excitement is well seen whether the patient be plunged into a cold bath or be subjected to showering or to cold affusion.

As a means of discipline or punishment, especially in some cases of a hysterical nature and of so-called moral insanity, I believe the cold bath has a wholesome effect; and this I say without depreciating that jealous watchfulness which, while it aims at preventing the abuse of restraint, may perhaps, through excess of zeal, give rise to error in an opposite direction, and hamper the originality of those who who have to do practically with the care and treatment of the insane. The employment of cold water, however, as a mode of restraint, particularly in the form of affusion or the douche, is attended with grave dangers to life, and it should be used with the greatest caution, the more especially as its use is not essential, and can easily be dispensed with in asylum practice. I consider when the employment of any kind of restraint, although it can be demonstrated in some cases to be an actual benefit, is attended like cold and shower baths with serious danger, and is peculiarly liable to abuse, that it is well such method of treatment should be regarded with suspicion. As a matter of fact I scarcely ever in my own practice make use of cold water restraint in any form.

Punishment.

To some not acquainted with the nature of insanity it may seem inhuman to speak of punishment with reference to a lunatic. They regard insanity as some definite fixed thing separated from sanity by a wide gulf, necessitating an abrupt transition in our method of viewing and dealing with

the two states. The infliction of punishment they look upon as an act of vengeance or retaliation which is right and proper in the case of criminals, but highly reprehensible in the case of lunatics. They fail to see that punishment directed with the view of ultimately benefiting the recipient is quite a different thing from punishment inflicted to gratify private malice. I have already stated my views as to the nature of insanity and its relation to crime, and likewise what I consider should be the true aim of punishment. Punishment is always right if it is the best means of counteracting in an individual those morbid tendencies which render him an anti-social being, and is fitted to make him as far as possible conform to the laws which are essential to the existence and progress of the social organism. It follows from this that it must be a mere question of practical utility when, where, and how, punishment is to be meted out. Were lunatics persons entirely devoid of self-control, and quite unaffected by external agencies, then the question of punishment would be an absurdity, but as an actual fact lunatics are amenable in various degrees to the same influences as affect all members of society. For what is our modern system of asylum management but a practical recognition of this fact? Nothing then can be more absurd than to say that because a man is insane he should on that account be exempt from punishment.

Industrial employment is pre-eminently the one agency best fitted to guide the patient into healthy channels of thought, and pave the way towards recovery. In asylums it happens now and then that great difficulty is experienced in inducing a patient to work. Coaxing and kindness are alike ineffectual in overcoming his perversity; and here is one instance where the infliction of punishment is imperatively demanded in the patient's own interest. A dose of hyoscyamine administered especially hypodermically is in most cases a speedy and effectual remedy, and may indirectly cause the first step towards the patient's recovery. Epsom salts with tincture of assafœtida may be advantageously given, the efficacy being all the greater if, as is generally the case, recourse must be had to the stomach pump. Other means which may be tried are the administration of an emetic, cropping closely the hair of the head and face, depriving the patient of luxuries such as snuff and tobacco, clothing him with a ragged suit, or causing him annoyance by fastening a heavy bag of sand to his back and compelling

him to carry it about. I have never known one or other of those means to fail after kindness, coaxing, and bribery had no effect whatever. I have also found a dose of hyoscyamine to be of wonderful efficacy in some cases where persistent mischievous behaviour was the outcome rather of wilful malignity than the result purely of disease. These are instances where the infliction of punishment such as I have alluded to is indicated, and it is justified as being truly treatment calculated to improve the mental condition of the patient in the manner most conducive to his own welfare and that of the community.

Practical Conclusions.

The general conclusions which I have formed regarding the employment of restraint in the management and treatment of the insane may be briefly summed up as follows:

1. Restraint of some kind will always be necessary while insanity exists as it is at present.

2. It should be limited in its application so far as is compatible with the welfare of the patient and the interests of the public.

3. Restraint should, as far as possible, be graduated to meet the exigencies of each individual case.

4. Direct control, moral and physical, by good attendants, under the guidance of the higher asylum officials, is the best means of attaining to this end.

5. Restraint other than that exercised in this way is not frequently required in any well managed asylum where due attention is paid to the requirements of the patients with respect to food, clothing, shelter, industrial occupation, and amusement.

6. Cases occur occasionally where exceptional restraint is imperative, physical force at the hands of attendants being fraught with danger of personal injury.

7. In the majority of such cases seclusion is to be preferred to either mechanical or chemical restraint as being safer and a more beneficial and humane procedure than is recourse to mechanical appliances and prostrating drugs.

8. The use of mechanical apparatus for purposes of restraint can only be justified in surgical cases to prevent interference with dressings, and in cases of emergency until other and more beneficial means of restraint are available.

9. The systematic use of stupifying drugs as a means of restraining lunatics, is a pernicious practice engendering danger to life and permanent injury to health.

10. Their occasional use, together with such remedies as cold baths, nauseating drugs, &c., is sometimes indicated as punishment, and is justified as being the most speedy and effectual means of counteracting morbid propensities, and of guiding the unfortunate patient to the path that leads to mental health—perchance to ultimate recovery.*

CLINICAL NOTES AND CASES.

Commentary on some Cases of Moral Insanity. By John Manley, M.D., Medical Superintendent of the Hants County Asylum.

In the July number of the Journal for the year 1881, Dr. Savage, in his article on the above subject, expresses the opinion that "some cases seem from infancy prone to wickedness, and that many so-called spoiled children are nothing more nor less than children who are morally of unsound mind." In this opinion I quite concur, and give the two following cases as examples:—I have quite recently been consulted in the matter of a male child 4½ years old, who seems to be the very spirit of mischief. He destroys his clothes and bedding, will pour the ink bottle over the clean clothes, put clean clothes into the pôt de chambre, and the other day was discovered placing a piece of soap in the saucepan in which the soup for the family's dinner was being made. No threats, no punishment seem to have any influence over him. Yet this child is perfectly intelligent, and always anxious to go to school.

The other instance came under my notice some years ago. He was a schoolboy, under six years of age, and I should say he was a clever child. Certainly he was not in any way deficient in intellectual power, but he was the plague of the house, being in every way mischievous, and having, what cannot otherwise be described, than a homicidal propensity. He seemed to have no control over his actions, and neither kind nor severe treatment made any impression upon him.

Both these children were in a good position in life, and were kindly and affectionately brought up.

* Readers of the Journal are reminded that "the Editors do not hold themselves responsible for the views of Contributors whose names are signed." The writer appears to us to forget that he is not the Master of a House of Correction but the Medical Superintendent of a Hospital for the Insane.—[Eds. J. M. S.]

Whilst on the subject of moral insanity I may instance a case now in the asylum. The subject is a man 26 years of age ; he has a rather weak type of countenance, but shows a great deal of low cunning. He seems never to have had a home in the real sense of the word. First he worked on a farm, and at the age of 16 enlisted in the militia, passing himself off as being 18 years old. Shortly afterwards he went into the Royal Horse Artillery, from which, for misconduct, he was sent to prison, and subsequently dismissed the service. He then took to the tramp, and went north, when he was placed in an asylum, from which he made his escape, and was not retaken. After this he seems to have got into a series of drunken brawls, for which he was committed to prison on four different occasions. According to his own account he has had various attacks of delirium tremens, and it is only on these occasions that I can discover he has ever had a delusion. At last he came back to his native county, had another bout of drinking, became quarrelsome, fell into the hands of the police, and was brought to Knowle. On admission he said he had an irresistible impulse to kill himself or someone else, and constantly put himself into a fighting attitude. A few days after his admission he declared the attendant had broken his ribs, and said he was in great pain ; but on examination no injury or mark of violence could be detected. Not long afterwards he pretended to have a fit, and struggled so much that four attendants could scarcely hold him ; and then he asked to have some whiskey or brandy. During all his violence he did not hurt himself, and cold water freely applied to his head soon stopped his "fit." He has now been here nearly three months, and has, for the present, settled down into his place. But he is a man who may at any time become troublesome, and who would, were he at large, continue a course of life such as I have described, and again need an asylum.

Atrophy and Sclerosis of the Cerebellum occurring in a Case of Epileptic Imbecility. By Herbert C. Major, M.D., Wakefield. (*With illustrations.*)

The patient in whom the cerebellum presented the lesion, which forms the subject of the present note, was a female, Eliza G., who was admitted into the West Riding Asylum on Nov. 13th, 1872, having been transferred from the Newcastle Borough Asylum, where she had been under care since September, 1871.

The following is a brief history of the case:—

She was 32 years of age, was stated to have been epileptic and idiotic from her birth, and to have become subject, as she grew up, to attacks of excitement and violence. A sister subsequently confirmed the fact that the patient had been thus affected "from her cradle," and added that she could never be taught like other children, had no memory, and, beyond a little of the simplest housework, had been unable at any time to employ herself usefully.

When admitted the patient was found to be very imbecile and unintelligent. She could understand questions only to a very limited degree, often replied irrelevantly, and was incapable of maintaining rational conversation. She frequently uttered obscene expressions in a senseless, demented manner. She could neither read nor write. Memory was extremely defective, and she betrayed no appreciation of her position and surroundings. Physically, she was fairly well developed, though looking young for her age; her head was of fair size, and there was no deformity. Locomotion was not affected, and the special senses seemed to be normal. The catamenia were regular. Her fits, which were both frequent and severe, presented the ordinary *grand mal* characters. In them she usually fell directly forwards; as far as known there was no rotation. The patient's state underwent no change until shortly before her death. She continued dirty and degraded in habits, given to wandering about aimlessly, and becoming violent if interfered with. On March 29th, 1882, as a sequel to a severe attack of fits, she passed into a state of stupor, from which she never fully rallied, and died on April 11th, with symptoms of some fresh cerebral complication.

At the autopsy, which was made 31 hours after death, the following were the leading particulars recorded. The cranium presented no special peculiarity. Covering the right hemisphere of the cerebrum superiorly, and to some extent also laterally, was a moderately recent so-called arachnoid cyst,* dark in colour, containing brown sanguineous fluid, and adherent to the parietal arachnoid. The cerebrum was of small size, but normal as to convolutionary arrangement. The cortex was very pale, but of average depth, and structurally presented no change to the naked eye. Weight of whole brain 1,120 grammes (cerebellum 115 grammes, pons and medulla together 20 grammes).

The left lobe of the cerebellum was normal; the right lobe was distinctly smaller that the left, and its under surface was flattened. To the touch this inferior flattened portion had a hard, dense feel, and was evidently in a state of advanced sclerosis. When cut into it was seen that the ordinary gray matter was converted almost into white tissue, the leaflets being also much smaller than those of the opposite lobe, or those in the deeper portions of the small lobe; for the advanced sclerosis while involving the under surface of the lobe to a considerable extent, was seen not to penetrate deeply.

* In all probability the immediate cause of the fatal issue.

Histology.—The cerebellum only was microscopically examined. Hardening for sections was effected by Müller's fluid, and subsequently in rectified spirit; the sections were stained with aniline black, cleared with oil of cloves, and mounted in balsam.

Sections carried through the sclerosed area into the comparatively normal tissue beneath, showed in the most satisfactory manner the morbid histological condition of the sclerosed part; that portion of each section being specially distinctive, which, under a low power, included in the same field a view of both healthy and diseased structure. Such a representation it has been endeavoured to give accurately in Fig. 1. It will be observed with respect to the outermost, or pure gray layer, that while, as seen in the upper part of the drawing, this layer presents practically a normal appearance as to depth and general characters, as it winds round the leaflet it becomes (at A) both thinner and paler, and thereafter is continued as a thin pale band. This reduced depth of the pure gray layer is invariable throughout the sclerosed areas, and coincides with the naked eye appearances before alluded to. The varying depth of colour in the prepared section is, of course, due to the varying action of the staining fluid on the more healthy and the diseased tissues respectively, the aniline solution almost blackening portions of the section—the healthy, while merely tinging others—the sclerosed.* Under a higher magnifying power again (Fig. 2) it is seen that in intimate structure the morbid external layer is much coarser than normal, the molecular matrix being defective, and the stroma abnormally fibrous, coarse and abundant; the numerous connective tissue fibres passing inwards from the pia mater being especially conspicuous. Deiter's cells appear more than usually numerous and prominent. The round bodies of considerable size seen here as also in other layers—amyloid bodies—are of interest as occurring *only in the diseased parts of the section* and thus afford proof of their connection with the morbid process.

Purkinje's cells are absent entirely in the sclerosed leaflets (Figs. 1 and 2). In Fig. 1 it is seen how, as the healthy tissue passes into the morbid, these important and characteristic nerve cells gradually and finally disappear.

The so-called granular layer immediately underlying Purkinje's cells, and broad under normal conditions, is reduced throughout the atrophied areas to a narrow band of cells (Figs. 1 and 2), the transition from the normal to the abnormal state being again evident in Fig. 1. But while this layer becomes so greatly reduced in the number of its constituent elements, the elements themselves—small stellate nerve cells for the most part—seem but little altered.

The nerve fibres which ordinarily succeed the granular layer in the form of a distinct white core within each leaflet, are absent, or nearly

* My colleague, Dr. Lewis, tells me that, similarly, he found that, in fresh sections, osmic acid, while colouring brown the normal parts, left the diseased areas unaffected.

Fig. 1.

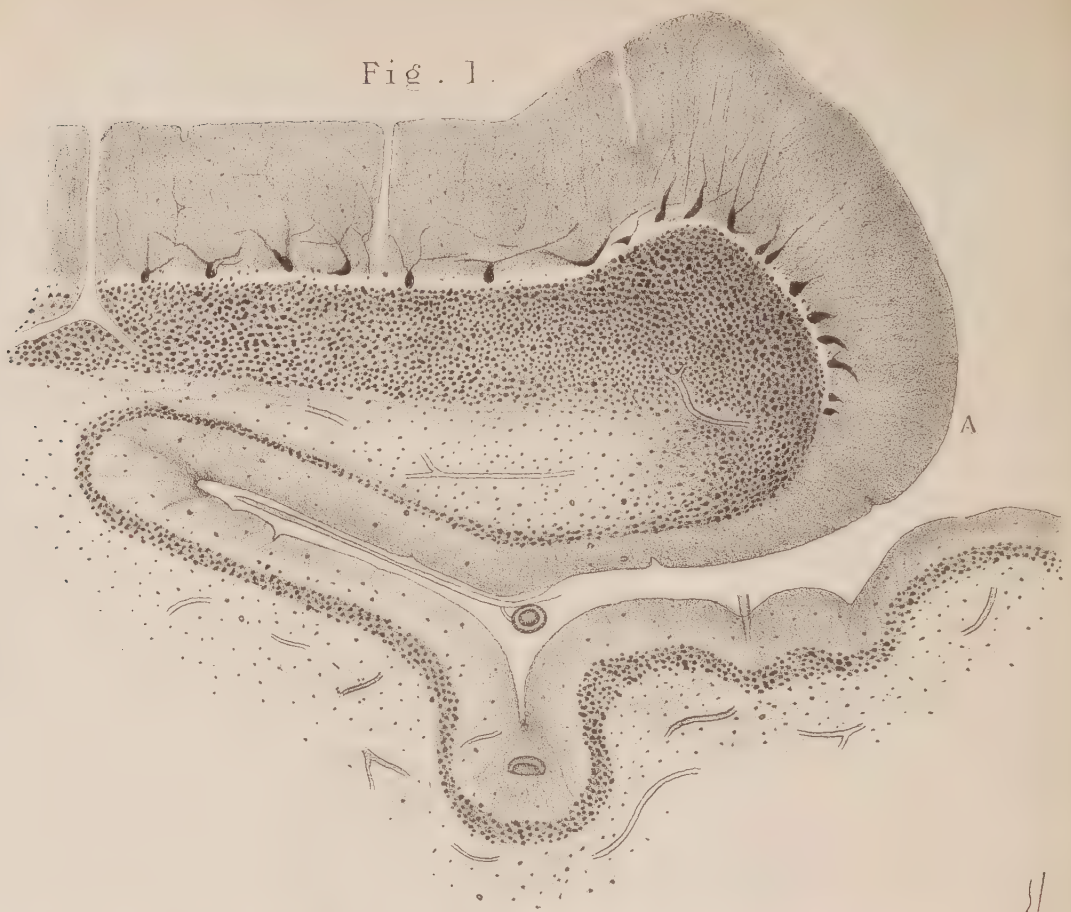
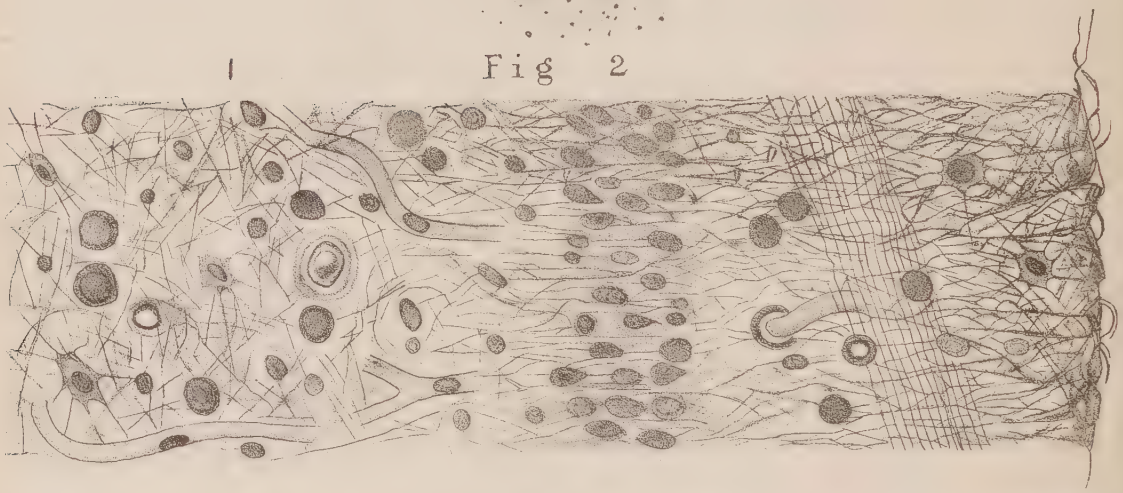
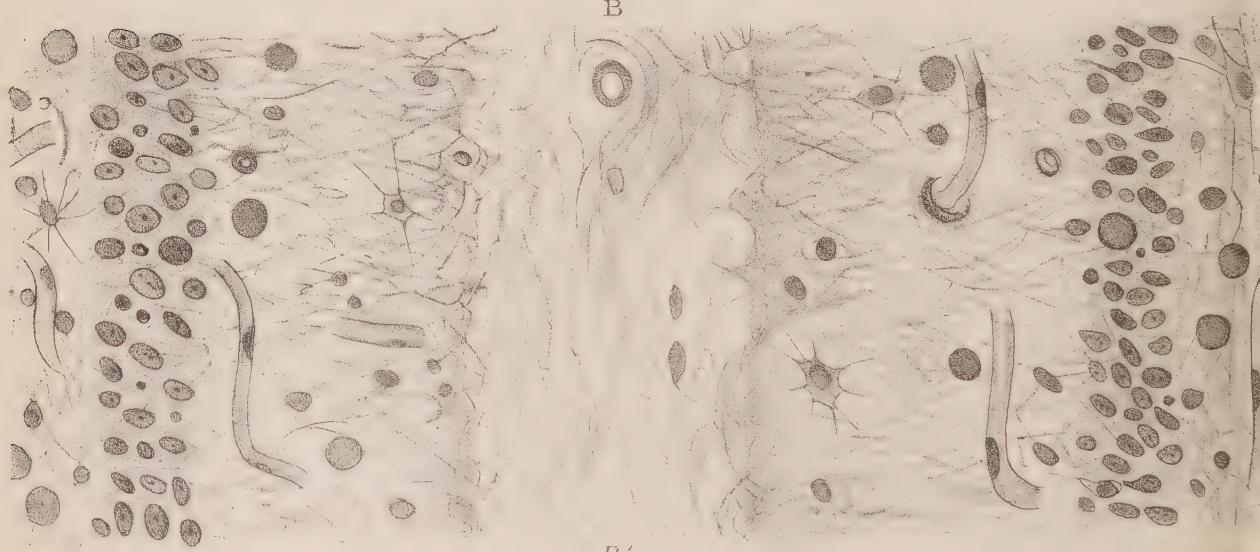


Fig 2





H.C.M. del.

Fig. 3.

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TO ILLUSTRATE Dr MAJOR'S PAPER.

so, in the diseased leaflets, their place being taken by connective tissue fibres, and generally proliferated neuroglia elements.

It remains to be said, lastly, that a remarkable feature of the leaflets in their relation with each other throughout the sclerosed areas, is the fusion of the leaflets, so to speak, by union of adjacent pure gray layers. This condition, which I have not observed before, appears to be brought about by the fibres from the hypertrophied pia mater passing abundantly into the leaflets, the membranes having themselves become fused and united (Fig. 3).

I have been unable to find any record of observations by others on the histology of this condition of the cerebellum; but in a case of paralytic idiocy* recorded by myself, and in which also there existed atrophy and sclerosis of one hemisphere of the cerebellum, a similar minute pathological condition apparently to that now described, but less advanced, was referred to. I therefore conclude that the minute changes now delineated and described are essentially those which commonly underlie the coarser appearances in atrophy and sclerosis of the cerebellum, and that such variations as may occur will be found to be due to differences of stage and degree of the morbid process in the affected centre.

EXPLANATION OF PLATES.

FIG. 1.—Section through portion of right hemisphere of cerebellum, showing normal structure above passing, at A, into condition of atrophy and sclerosis—× 50 diams.

FIG. 2.—Section of portion of atrophied and sclerosed leaflet of cerebellum, showing reduced depth of pure gray layer; absence of cells of Purkinje; great reduction of granular layer; absence of white core of nerve fibres, &c. × 300 diams.

FIG. 3.—Section through two adjacent atrophied leaflets of cerebellum, showing leaflets fused together (at B—B′) by hypertrophied connective tissue of pia mater. Otherwise the same structure shown as in Fig. 2.—× 300 diams.

Case of Atrophy of the Brain; Imbecility. By FLETCHER BEACH, M.B., M.R.C.P., Medical Superintendent of the Darenth Asylum.†

Many writers speak of two forms of atrophy of the brain, and it is a convenient method of describing the disease. In the first, there is incomplete development, as is seen in microcephaly; in the second, there is loss of nervous elements which

* "Journal of Mental Science," July, 1879.

† Read at the Quarterly Meeting of the Medico-Psychological Association, held at Bethlem Hospital, Nov. 8, 1882.

had previously been present. The case which I have to relate is an example of the second class. Various forms occur, but the most interesting is that in which there is atrophy of one side of the brain, usually the left, with coexistent atrophy of the limbs of the opposite side of the body. Now, though imbecility is not necessarily the result (*vide* cases quoted by Van der Kolk), yet examples of this disease are of fairly frequent occurrence in asylums for imbeciles.

An inflammation of the brain, meninges, or skull during fœtal life, or early childhood, no doubt will cause the disease. The paralytic form of imbecility, for instance, seems to depend upon an atrophy of the brain, caused by chronic meningitis, or inflammatory processes in the cortical substance. Either of these causes may of course occur before birth, or come on afterwards.

In the case of E. H. the date of the onset of the paralysis is doubtful.

E. H., aged 18 years, was admitted into the Clapton Asylum, May 3rd, 1875, having been transferred from the Hampstead Asylum. I am indebted to Dr. Orange, Medical Superintendent of the Broadmoor Criminal Asylum, for the following history:—The father of E. H. had died in 1868 of cancer of the bladder. The mother was a patient in the Broadmoor Asylum, having killed one of her children while insane. The parents had been temperate people, and were not connected by consanguinity. There was no family history of epilepsy or paralysis. This was the eldest child. There had been one other, who was killed by the mother as mentioned above.

E. H. was of sound mind at birth, and was doing well at Southall School, but was sent to Hampstead Asylum in consequence of epileptic fits from which she suffered. These commenced at the age of $2\frac{1}{2}$ years (cause unknown). Her intellect had been affected by the fits.

On admission she was a fairly nourished girl, of dark complexion, with loss of power of the right upper extremity (the forearm being contracted on the arm, the wrist on the forearm, and the fingers fixed in the palm of the hand), and weakness of the lower one on the same side. There was no means of ascertaining the cause of the paralysis, or when she was first affected with it. She was still having epileptic fits. She talked and answered questions with considerable intelligence, was of a quiet disposition, had pleasing manners, and was a general favourite. Her mental capacity was very fair for an imbecile. She could read from the 3rd Standard, and write very well with her left hand. She had made considerable advance in arithmetic, being able to do simple and compound reduction sums. She was fond of music, and knew all the colours. From this it will be seen that she was for an imbecile of a very high type. She made progress at school in the

intervals between the fits, and was able to sing at the entertainments. In October of the same year she was noticed to be getting thin, and on examination the physical signs of phthisis were discovered. She now had attacks of *petit mal* very frequently, and became very emaciated. She died on the 21st of December, 1875, having been unconscious the preceding day for six hours.

The post-mortem examination was made 12 hours after death. The calvaria was removed, and the convex surface of the brain examined *in situ*. On stripping off the dura mater the left hemisphere was seen to be much wasted, and the arachnoid membrane over its surface was in places thickened and opaque. The wasting was chiefly noticeable in the frontal and parietal regions. The texture of the hemisphere was evidently altered, for to the touch the left was hard and firm, while the right was elastic, and apparently normal. The left middle lobe was much reduced in size, measuring only one inch transversely, the right measuring $2\frac{1}{4}$ inches in the same direction. There did not appear to be excess of fluid in the left subarachnoid space, but as some drained away while removing the calvaria, the defect may be thus accounted for. The brain was then removed, and found to weigh $28\frac{3}{4}$ ounces. A quantity of fluid drained away during the process of extraction. A depression as large as a small pear could now be seen on the convex surface of the posterior half of the left hemisphere. On slicing through the brain transversely, the left lateral ventricle was found to be enormously dilated, measuring $4\frac{1}{4}$ inches in length and 2 inches in breadth at its posterior (most dilated) part; the right ventricle measuring only $3\frac{3}{4}$ inches, and 1 inch in the corresponding directions. The depression above mentioned was now seen to be due to the roof of the left ventricle falling inwards. Its upper wall in this situation was not more than $\frac{1}{4}$ inch in thickness, the roof of the right measuring $\frac{3}{4}$ inch. In consequence of the dilatation of the left ventricle, the left choroid plexus in its course outwards dipped downwards one inch anterior in position to the right. Comparing the two hemispheres, it was found that the right measured 7 inches in length, and $2\frac{1}{2}$ inches in breadth; but the left only $6\frac{1}{4}$ inches longitudinally, and $2\frac{1}{4}$ inches transversely. The right hemisphere weighed $15\frac{1}{4}$ ounces, the left only $5\frac{3}{4}$ ounces. The convolutions on the right side were exceedingly coarse, while those on the left side were smaller than usual for a child of her age. The white matter of the anterior and middle lobes on this side was reduced to a mere line. Unfortunately I did not examine specially the corpus striatum and optic thalamus of the two sides.

Examining now the cranium, the left side was found to be much thicker than the right, and the internal surface presented marked differences on the two sides. Thus the left anterior fossa was more prominent that the right; the left anterior lobe of the brain being correspondingly depressed inferiorly. The left middle fossa was much smaller than that on the opposite side, and was pear-shaped, while the

right was more quadrangular. On measuring the two, the left was found to be $1\frac{1}{2}$ inch in length, and $1\frac{1}{4}$ inch in breadth; the right measuring 2 inches and $1\frac{3}{4}$ inch in the same direction. The left posterior fossa was shallow. The left cerebellar fossa was larger than the right. The lungs presented cavities in the apices, and patches of tubercle and caseous material were scattered through the substance of both.

The cerebellum was not specially examined, but from the fact that the left cerebellar fossa was larger that the right, there is no doubt that the left lobe of the cerebellum was the larger of the two.

From the above case, as well as those related by Van der Kolk, Dr. Taylor, and others, it appears that the usual appearances found post-mortem are: thickness of the cranium, opacity and thickness of the membranes, effusion of serum into the subarachnoid space, sometimes into the ventricles, and atrophy of one hemisphere, including the corpus striatum, optic thalamus and pons of the affected side.

Since the fibres of the superior peduncles of the cerebellum undergo a complete decussation beneath the upper pair of the corpora quadrigemina, and those of the middle peduncles decussate in the pons varolii, while the fibres of the pyramids of the medulla have their well-known crossed direction, there is atrophy of the cerebellum and of the spinal cord on the opposite side.

The course of events appears to be this: First, there is, as the result of chronic inflammation of the meninges, or of the cortical substance, wasting of one side of the brain. To compensate for this the skull becomes thickened, and serum is poured out beneath the arachnoid and into the ventricles. Then, since those parts of the brain which are connected with motion are wasted, the limbs whose action is governed by them are imperfectly nourished, and become atrophied.

I have not entered into any description of the microscopical appearances found in cases of atrophy of the brain, as those pertaining to the brain have been fully described by Dr. Major in the "Journal of Mental Science," and those of the spinal cord by Dr. Taylor in the "Guy's Hospital Reports."

*Insanity of Twins.**

I.

Twins Suffering from Similar Attacks of Melancholia. By Geo. H. Savage, M.D., Medical Superintendent of Bethlem Hospital.

The subjoined cases are of great interest from the parallelism in the life histories of the two. The two sisters are very much alike in personal appearance, and their histories will be seen to be extraordinarily alike; each has three children, the youngest being nine months in one family and ten in the other.

Both patients are typical cases of melancholia with stupor. They stand about unoccupied, and without care or attention to appearance or to necessities. There has been no case of insanity in the family as far as we can ascertain, and the causation of the taint is unknown. Since admission the cases have been placed in separate wards, but still the progress has been very similar in both; at present both are beginning to look about them to say a word now and then.

I have already seen one other case in which twins were affected with nervous disease at the same time, one being insane the other epileptic.

We generally have at Bethlem pairs of sisters in the hospital, and I should think that during the past ten years, at least two sisters of one family have been under care at the same time twenty times. In most of these cases, however, both have been under the same roof, and so under the same special as well as general contributing circumstances. In the case here reported the circumstances were very similar, but the two women had left their parental home, and had homes of their own.

Case I.—A. S. U., 28. Admitted 14th August, 1882. A farmer's wife. Married. Three children, youngest ten months. First attack: Duration two weeks. The supposed cause is the shock of seeing her sister suffering from melancholia. Stated to be suicidal, but not dangerous. Sober and well educated.

One sister (twin) similarly affected.

No phthisis, acute rheumatism, chorea, fits or fevers. Has weak health from nursing baby ten months. Menses not reappeared since last confinement. Temperament quiet.

Earliest symptoms: Excitement and talkativeness, crying out that

* We shall be glad of reports of similar cases for this Journal.—[Eds]

God has taken her heart, and that she has sinned very grievously against Him.

Present condition : Is never found sitting ; stands with her hands in front of her for hours, never speaking. Is with difficulty induced to take her food.

Case II.—E. G. W., 28. Admitted August 17th, 1882. She is an architect's wife. Married. Three children, youngest eight months. First attack : Duration nine weeks.

Neither suicidal nor dangerous. Sober and well educated.

One sister (twin) similarly affected. No phthisis, &c. Menses regular. Temperament cheerful, placid, and industrious.

Earliest symptoms : Had a fainting fit, and was semi-unconscious for a week, when she came to herself very depressed and melancholy.

Present condition very much the same as sister ; does not sit down or speak ; has to be fed by spoon.

II.

Twins Suffering from Mania. By Mr. H. Clifford Gill, Medical Superintendent York Lunatic Hospital.

I have lately had under my care two cases of insanity occurring in twins, and it seems to me that it might be of interest to some of our readers if these cases were published. The patients were young girls, and between whom there existed a marked sympathy. Not only are they extremely alike in personal appearance, but in manner, style, and speech, so much so that at one time nothing would be easier than to mistake one for the other. This similarity obtained not only in their bodily development, but in their mental condition also, and on the authority of their mother I am informed that great sympathy existed between them even in their illnesses ; whenever one of the girls suffered from an illness the other would be sure to have the same illness also. This was particularly noticeable on one occasion : one of the twins was at Scarborough and the other in York. The twin told her mother that she believed her sister at Scarborough was ill, for she herself felt an attack coming on. The two sisters had no communication with one another, but the suspicion of the twin in York was true. The twin in Scarborough had exactly the same attack as the one in York (bilious headache). So again when the elder twin (who was the first attacked with insanity) began to show symptoms of unsound mind, her mother came to me expressing the deepest anxiety for the younger twin, though at that time there was no

symptom whatever of any mental disturbance, but, as the sequel shows, was only too well founded.

M. L. W., aged 20; single. Admitted November 20th, 1879. Is a stout, well built, and good-looking girl. She is the elder of twins. Has dark hair, and eyes, of sanguine, inclined to nevous temperament, and emotional.

Has always enjoyed good health, both mentally and bodily; is fairly well educated, of amiable disposition, religiously disposed, domesticated in her habits, very active and industrious, and temperate. Has no constitutional complaints. During the last two years has supported herself by her own efforts in partnership with her twin sister, A. L. W., as housekeeper in a lodging-house; the latter A. L. W. being a milliner, and attending to that part of the work, while M. L. W. looked after the house and domestic work. There is no history of insanity, nor can I ascertain that insanity or nervous disease exists or existed in the family of either of her parents, but all the children, five in number, are more or less affected with neuroses.

The eldest brother, who is of feeble intelligence, was a patient here for nine months, suffering from an attack of mania. He was seized when 19 years of age. The twin sister has also been insane, and a patient here. The eldest sister (married) is at times peculiar, suffering from odd sensations in the head, and depression.

The youngest sister is emotional, wilful, and at times ungovernable, and is a leading tambourinist in the Salvation army. She is the cause of the gravest anxiety to her mother. A younger brother is of feeble intellect.

This attack is said to have begun with loss of speech, restlessness, loquacity, and an alteration in her general demeanour. Her conversation becoming free and flippant, speaking of gentlemen altogether above her in social position in a free-and-easy and objectionable style. These symptoms rapidly developed themselves, and she then said she was going to be married, and went about from shop to shop, giving most absurd orders for her trousseau, her conversation becoming rambling and incoherent, but very erotic and amorous. The only cause her mother can assign for the attack is the loss of her lodgers, which has crippled them pecuniarily and prevented them paying their way.

The attack has lasted three days.

On admission I found her very much in the state above described, all her talk being of men and marriage, and among other thing states that the gentleman lately lodging at her house used to be very familiar with her; these familiarities being little less than indecent assaults and attempts on her virtue.

Her appearance is wild and excited, and her emotions wholly ungoverned. Bodily health is fair, the abdominal and thoracic viscera healthy. Ordered haust sennæ co ℥iß. and bromide of potassium ʒß three times a day.

The case progressed favourably till December 19th, 1879, when there was a distinct relapse; and a considerable alteration took place in the mental symptoms, violence and mischief being superadded, and the delusions, which had to some extent passed away, became even more prominent.

December 26th.—She is very noisy at night. Ordered gr. xv of hydrate chloral and gr. xv of potass. brom. at bedtime.

On December 29th the twin sister A. L. W. was admitted, suffering from exactly the same form of insanity as her sister. The environment of both girls has been the same, and A. L. W., who is the more refined girl of the two, has had the additional shock of seeing her sister become insane and removed to the asylum, and as a consequence the break up of her home.

She has many delusions and great complaints. She says that people have tried to murder her; that she is covered with bruises, and demands to be examined. (There are no bruises.)

She is fantastically dressed, her hair dishevelled, laughing, singing, and shouting alternately. Wants to be taken a great deal of notice of, and on my remarking on the unsuitableness of her boots accused me of wishing to look at her legs, at the same time duly placing them on the fender to show off her ankles.

On January 5th, 1880.—She is reported to be very troublesome, especially at night, to be full of all kinds of wants, and to be very erotic.

February 5th.—The attack has subsided, and patient is reported as being much improved.

March 11th.—The improvement having continued was this day discharged recovered.

During this period, *i.e.*, from January 5th, 1880, the other sister, M. L. W., is reported to have improved, and the improvement has gradually taken place, though slowly, for on May 4th, nearly two months since her sister's recovery, she is described as flighty, and far from well. On July 6th, 1880, she is much better, and on August 3rd was allowed leave of absence on trial for two months. She remained well, and was discharged recovered on October 4th, 1880.

Patient was re-admitted on December 19th, 1880, having remained tolerably well till a week ago, when the present attack began.

On December 15th saw patient at her mother's house; she was then very low and depressed, and refused food. Tongue very dirty, breath foul, and a general appearance of marked illness, great constipation, which was relieved by a gr. iiij. dose of calomel combined with gr. v of jalapine.

Patient, however, did not improve, but depression gave place to violence, with attempts to get out of window. Her mother states that she had a "*fit*," but I could not get a sufficiently accurate description of it to say what kind of a fit it was.

On admission her demeanour was wild. Facial expression that of

distress. She says that people shout for her all day in the streets, and that last night God opened the windows of her room, and called her to go out.

There is a wild expression about the eyes, pupils unequal, and much dilated, act badly and irregularly to light.

Right pupil quite oval and dilated to the fullest extreme in its long axis. Skin hot and burning. Temp. 104. Pulse hard and wiry, and indeed generally the patient has the aspect of profound cerebral disturbance.

Was treated with effervescing salines.

December 21st.—Was sent for this afternoon suddenly, the message being that patient had had a fit and was dying. She was, on my arrival, quite unconscious. I could not rouse her. Pupils irregular and dilated, would not act to light; countenance dusky, cerebral vomiting, and every appearance of speedy dissolution.

23rd.—Is reported much the same generally, quite unconscious, and unable to swallow from paralysis of pharynx.

On the 25th she remained in very much the same state. Dr. Murrell saw the case in consultation with me, death appearing imminent. Brandy and milk was ordered, but great difficulty was experienced in administering it on account of pharyngeal paralysis, while at the same time enemata could not be retained.

From this time a change took place. During the night of 25th-26th the patient became violently delirious, but on the following morning, she was unmistakably clearer and better. Pulse 120.

On the 30th she is reported as being still very ill, but conscious.

January 2nd, 1881.—Was got up for the first time, but is unable to recognize any one. From this time onward she gradually and very slowly made progress, though the effect of the attack was so great that in May she is reported as being weak, though much better, and it was not till September, 1881, that she is spoken of as being convalescent.

On September 13th.—Her twin sister, A. L. W., was re-admitted with an attack of well-marked hysterical mania, the symptoms of which were very much like those of her previous attack, only worse.

On November 1st.—She is noted as having much improved, but on the 21st of November, 1881, has fallen off again, and has become dirty, obscene, and very maniacal.

On November 20th, 1881.—M. L. W. showed signs of a relapse, is decorating herself with rubbish, and is very talkative and knowing.

Went through an attack of mania, and convalesced in March, 1882, but was not discharged. She continued fairly well till June 16th, 1882, when she again showed marked signs of a relapse.

Notwithstanding treatment a very severe attack of mania came on; and on July 24th it was fully developed, and has continued with no intermission up to the present date, November 18th, 1882.

Her twin, however, A. L. W., who it may be remarked has never had anything in the nature of a "fit," gradually, but with short relapses, began to recover, and on June 11th, 1882, is reported as being better, and from this time the improvement was gradual, and unattended with relapse, till October 16th, when patient, being quite well, was discharged recovered.

General Paralysis from Cranial Injury. By Wm. Julius Mickle, M.D.

Traumatic general paralysis, in its broad sense, is so large a subject that attention is limited here to cases following cranial injury.

I have elsewhere* mentioned cranial injuries as being sometimes the predisposing, and sometimes the exciting causes of general paralysis, and their influence is usually accepted. In two of the twenty cases, of which details are given at the end of the work just cited, cranial injuries were alleged as presumptive predisposing causes.

In the cases that have come under my own observation, where cranial injury has conduced to general paralysis, it has, in the majority, seemed to play the part of a predisposing rather than of an exciting cause. And yet in some examples this may be so in appearance only, and may not represent the actual course of events; for the injury may have left behind it not only a permanently damaged condition of encephalon, but also some obscure, insidious and undetected inflammatory process about the brain-surface and meninges, which, either with or without any augmentation of its activity and extent from the operation of some other existing cause of the disease occurring later in time, and perhaps acting more directly, may have culminated in general paralysis.

From cranial injury may arise molecular perturbation of the cerebral tissues, or bruisings, crushings, hæmorrhages, and even ruptures in the same, or in the meninges.

In speaking of cranial injury as a predisposing cause of general paralysis, we may suppose that in consequence of latent residual results of the above-named hurtful immediate effects of trauma, either the cerebral tissues are simply less resistant to the influences of ordinary causes of the pathological process which underlies general paralysis, or that this

* "General Paralysis of the Insane," pp. 98, 108.

process springs more fully into being by assisting in, and in its own turn being assisted by, the intensification and extension of slight local inflammation or hyperplasia sequential to the brain injury; or, again, assisted by morbid vaso-motor effects of that injury.

On the other hand, where cranial injury acts as an immediate exciting cause of the disease, it will do so by the direct development, into the lesion of general paralysis, of secondary results of the melecular, or fine, or of the gross, local damages already named. To which vaso-motor effects of the traumatism may or may not be contributory. For injury to produce this result the brain-tissue must, perhaps, be ready to move (as it were) in the direction of general paralysis.

Usually, no doubt, several influences conduce to the occurrence of this and other mental diseases.

Cranial injury has appeared to be a factor in the production of general paralysis less frequently in my experience than in that of some observers. Sometimes it is doubtful whether the cranial injuries are in any way causal or not. Avoiding statistics, therefore, I will give a few brief extracts from notes on several hitherto unpublished cases, to which others might be added.

The following is an example of the sort of case of which mention has been made, where injury was presumptively a predisponent:—

A. T., Sergeant 77th Regiment; admitted March 10th, 1880, at the stated age of 29, but looking older; service in army $5\frac{7}{12}$ years. General paralysis had come on in an insidious manner more than a year before admission.

The patient, a fairly educated French Canadian, had for some time been a mercantile clerk at Paris. Serving in the cause of civilization against the desperadoes of the Paris Commune in 1871, he was struck by a partially-spent rifle-ball on the head just behind the left parietal eminence, and lay insensible for several days. Subsequently, entering the British army, his good conduct, temperate habits, fair education, general intelligence and docility, gained for him promotion as sergeant. Unfortunately, his promotion brought with it numerous worries and anxieties and overwork in the orderly-room at Dublin. He became depressed, melancholy, and strange for several months, slovenly, forgetful of orders, and careless as to duties. Then, on June 20th, 1879, he was placed in hospital under observation, until discharged on July 27th. But after this he still was strange, asked for whitewash for his tent-roof, got up in the night to wash the floor and clean belts, said he was going to the Curragh to shoot for a £40 cup, and was about to be married; there being no real foundation for either statement.

After this tremor of lips, thickness and hesitation of speech, greedy eating, dirty and mischievous habits, impaired deglutition, defective memory, and confusion of ideas, were noted.

On admission.—There was no history, acknowledgment, or sign of venereal disease. The speech, tongue, and face were moderately affected by the ataxy and paresis of general paralysis; but there was also incomplete left facial paralysis, especially of the lower part of the face, the upper part being little if at all affected; the left palate was also somewhat palsied. The pupils were slightly irregular in shape, somewhat sluggish to light, and about equal in size. The gait was somewhat shaky, jerking, uncertain in sudden turning, and the heels were rather brought down; if in walking, the eyes were closed, there was some staggering; the knee-jerk was absent, and there was no ankle-clonus.

Without transcribing the notes, it may be briefly stated that the patient was somewhat demented, childish in conversation, often restless, and of an anxious worried facial expression; yet, usually passing into a condition of self-satisfaction and gusto in describing what he had done, and what he hoped to do, the latter embracing projects beyond his capabilities. But during the—less than three months—time he was under my care there were no obvious exalted grandiose delusions, at least none of extravagant form; no complaint of cephalæa; no observed hallucinations, or apoplectiform or epileptiform attacks, or knee-jerk, except once slightly in left leg. Potassium iodide and ammon. carb. were administered.

On June 4th, 1880, he died of an acute affection, foreign to the cerebro-spinal disease.

Abstract of necropsy.—Dura rather thickened, congested, slightly too adherent to calvaria at parts. Arachnoid and pia very thick, tough, opaque, and pia œdematous; these meningeal changes being of unusually diffused distribution. Several atheromatous patches in basal arteries. Adhesion and decortication very slight, and found only over the middle of the left second temporal gyrus and tip of left second frontal. Grey cortex of cerebrum pale in anterior regions, somewhat wasted over convexity of frontal, and less of parietal, lobes, slightly thinner in right anterior and middle regions.

A slightly shrunken, withered appearance of posterior part of left nucleus caudatus.

Ventricles of encephalon all highly granulated; lateral ventricles appearing relatively rather large. Pons and medulla oblongata firm. Cerebellum rather firm, free from adhesion and decortication. No gross lesion of cranial nerves at base of brain noted.

The posterior columns of the spinal cord were unduly firm from incipient sclerosis, and in the cervical region they turned of a reddish grey colour after section and exposure to the air, but no local circumscribed patches could be made out.

Of other results of the necropsy perhaps it will suffice to mention:

some atheroma of left coronary artery, and of aorta; very slight hepatic cirrhosis; slight traces of old adhesive perihepatitis; old adhesion of omentum in right groin; ulcers of large gut; slight adhesions of renal capsules to kidneys.

In the next case the cranial injury seems to have been the exciting cause of general paralysis.

P. G., 57th Regiment; admitted October, 1879, then aged 37; service $15\frac{4}{12}$ years; of good conduct and temperate habits. Had gonorrhœa and a venereal sore in 1868. In 1869 had rheumatic-like pains in hips, knees, legs, and wrists, but no swelling.

Having been severely beaten about the head with sticks by some soldier prisoners, he was admitted into hospital at Kandy, Ceylon, for surgical treatment on Aug. 20th, 1878, and, with the exception of three days, he there remained until the end of September, but was immediately readmitted. Discharged again, after 42 days, he was not allowed his wish to go to the Zulu war. For some short time previously to this his manner had been strange, and after this refusal he became depressed, and was admitted into hospital at Columbo for mental failure. Deep-seated cranial pains were suffered; vivid hallucinations were evinced. The Virgin, and saints, he said, visited him; angels blew on his head and healed the cracks in his skull; he saw and heard the archangel Michael and others; he was born without a soul. With these was some emotional exaltation.

He suffered from diarrhœa during, and for two weeks after, the voyage from Ceylon to England.

On admission. Abstract.—Scars of the cranial injuries remained, especially about the left brow and temple. Speech somewhat hesitating and stumbling, with occasional repetition of syllables. Tongue fairly protruded, this movement being accompanied by some twitching of upper lip; forehead contracted from time to time, and brows raised. Pupils rather sluggish, and slightly irregular in outline. Handwriting rather irregular and shaky. No indications of syphilis. He said he had had severe pain in occiput and vertex of head for nine months after the cranial injury; the pain wore away gradually. Mentally he was better, holding his former delusions apparently in doubt, and having no acknowledged present hallucinations. Ordered Potassii iodid.; ammon. carb.

In several months he gained 12lbs. in weight, but in 1880 lost most of this again, and syr. ferri iod. was added to a mixture of potassium iodide. Mental improvement occurred for a time; but seven months after admission, and later, he wrote letters giving expression to absurd, rambling, exalted delusions, such as that the Almighty visited him, and made him carry a cross to save the world; that he was the Virgin, could stop the rain and bring it down, could redden the moon and brighten it again. The spelling, caligraphy, and composition pointed to general paralysis. Mentally he became better,

but, refusing the above medicines, was given hydrarg. perchlor. unknown to him. The motor signs of general paralysis became much lessened; the tactile sensibility was fair.

In 1881 delusions, as above, could be elicited at times. Body-weight higher than ever. The nape was blistered, and a discharge kept up for many months by antimonial ointment; the mercurial was continued internally. The motor signs of general paralysis became very faint. No local palsies or epileptiform convulsions were observed. Treatment had kept the disease in check, and had assisted in procuring, at least, a decisive remission.

Another case, in which the cranial injury acted apparently as an immediate exciting cause, but in which there was a long syphilitic history, was that of a soldier, who suffered a severe injury to the head in a July, and on the 29th of that month was admitted into hospital with "maniacal" symptoms. Seven weeks afterwards he was discharged to duty, but was readmitted in the January following with general paralysis, the true onset of which had probably been marked by the mental symptoms which followed closely upon the cranial injury. Later on, he was admitted here. In the army he had been of good character and steady habits, and there was no record of sunstroke, convulsion, or palsy. But there was a distinct history of syphilis incurred ten years previously.

Finally, brief mention may be made of a case in which an injury to the spine was the one of the assigned causes of general paralysis that principally attracted the attention of the army surgeons; but there appeared to have been an injury to the head also, and part of this soldier's service had been abroad, and in unhealthy climates.

W. L., Sergt. 3rd Battery 10th Brigade Royal Artillery; admitted May, 1880, aged 35, after 18 years' service, mental disease having been very obvious from the preceding October, but apparently having been more or less existent for nearly four years, and the causes assigned for it being stated as "long military service, and injury to the spinal cord." The patient was temperate, of good conduct, and had no history of relatives affected with insanity or convulsions.

It appears that on May 13th, 1870, he was struck on the back and abdomen by "sheers" at Woolwich. (He stated that at the same time he was struck on the head as well, and explained a scar over the right parietal bone as being a result of that injury.) Supposed as a sequel to this accident, he was admitted into hospital at Halifax on April 16th, 1876, and for 41 days, the entry on the "medical history sheet" being "injury to spinal cord." Subsequently, he was in feeble health, mentally changed, slovenly, neglectful of duties and orders,

depressed, discontented, making silly and unfounded charges against those about him. Stationed at Bermuda, he was admitted into hospital on September 29th, 1879, and was, or became, restless, excited, irritable, sleepless, peevish, sulky, dull, with outbursts of rage, gave absurd and confused orders, was noisy, mischievous, destructive to clothing, and on one occasion rushed from hospital to the sergeants' mess, and said he had put all those in hospital under arrest.

When here he had exalted delusions, co-existing with absurd delusions of ill-treatment, of being starved, of having, daily, frightful corporeal injuries inflicted, of his life being threatened, and attempts made to poison him. Though at times buoyant, he was usually sullen and morose; often threatening, and full of invective. There were hallucinations of sight and hearing; and muscular illusions as to flight of body. Knee-jerk well marked. No ankle-clonus. Once, left hemiparesis, and left facial paresis. Speech not excessively affected; pupils, face, tongue, &c., considerably. No epileptiform seizures.

The patient was subsequently transferred.

Brief Note of Cases Illustrating the Importance of Investigating the Patient's Environment in Testing his Sanity. By Samuel Wilks, M.D., F.R.S.

The last number of the Journal contains a valuable paper by Dr. Mercier on the Data of Alienism, in which the writer insists upon the importance of investigating the patient's environments before pronouncing upon his state of mind. This self-evident proposition is, I am confident, often overlooked by those who have not made mental disease their study, although I cannot call to mind more than one case where a certificate of insanity was given, entirely founded on a basis which was true enough as regards the majority of mankind, but false as applied to that particular instance. I have unfortunately no notes by me of cases, which by their detail only, could afford a warranty for my statement, but my memory furnishes me with some few examples which bear upon it.

A gentleman holding a good position in a Government office broke down in health, and his medical man sought the advice of two or three physicians as to the line of treatment which should be pursued. The consultants were informed by his attendant that according to the patient's own view of his case it was not so much office work as domestic anxiety and

worry which had crushed him, for he had long suspected the unfaithfulness of his wife, and had even seen gentlemen in his house. This statement his medical attendant regarded as a sad exposition of this patient's mental condition, and in consequence looked upon him as bordering on insanity. This view the consultants accepted, as they were informed that all the gentleman's suspicions were groundless. He was sent away into the country, and was ordered to be rigidly watched. He did not live long, and after his death it came out most unmistakably that his wife had been unfaithful to him, and that gentlemen had even been admitted into her husband's house.

In questions of less importance than actual insanity, one daily feels the necessity of a further knowledge of the patient's environments before offering an opinion as to his or her state of mind. For example, a gentleman asks me to see his wife, whose temper has become so unbearable and so ungovernable that he thinks she must have gone out of her mind. I pay her a visit, when she immediately exclaims, "I suppose my husband calls me mad; who would not be in a temper when he is never at home? And the other evening when kind friends, seeing my desolation, asked me to accompany them to the theatre, who should I see walk into a box but my husband with a woman." Cases of this kind, where owing to family squabbles, husbands and wives call each other mad, must be familiar to all medical men who are often asked for the satisfaction of one of the parties to pass his dictum on the other.

In a case which came some time ago before a legal tribunal, in which there was a reasonable question of insanity—at least I say this because good men on both sides differed in this respect—one witness in favour of insanity candidly told me that he at once assented to the proposition when he was a witness of the unusual circumstances in which the patient was placed, which were these: He was a gentleman of good position and fortune, lodging in an obscure part of London unknown to his family, his only acquaintance being those belonging to the house in which he lived. The whole procedure was so unnatural and unusual that when his children discovered him, there was no difficulty in getting him pronounced insane. A friend of the gentleman, however, who knew him well, was most indignant at the imputation, and afforded an explanation of his singular conduct by saying that his wife was dead, his

daughter had run away, and his two sons were so impoverishing him by calls upon his purse that he had no other resource than to escape and hide himself to avoid their importunities. It is true that opinions differed as to this gentleman's mental state, but it is nevertheless true that one medical man at once consented to give a certificate when he heard of the unusual circumstances under which the patient was living.

The case, which more especially has urged me to take up my pen after reading Dr. Mercier's paper, was a very striking one in confirmation of the necessity of using the caution on which the author insists. It was that of a gentleman who was pronounced insane by myself and four other medical men, although fortunately no certificate was required. For the credit of the special department in whose interest I am writing, I am happy to say that not one of the five gentlemen was an alienist. The patient was living in the suburbs of London, and had been long known to me by name and by sight. He lived in a detached house, with a large garden, having carriages, servants, and all the appurtenances of a well-to-do-man. He was reported as being very rich. I was asked one day to visit him professionally. I met two medical men, general practitioners in the neighbourhood, who informed me that for some weeks he had taken to his bed, refused food, had grown very thin, had sleepless nights, and declared that he should not live until Christmas. My visit was in the autumn. He had fallen, they said, into a state of melancholy, and was suffering from fearful delusions; he was constantly talking of his wickedness, of the dreadful future which awaited him hereafter, should he by any possibility escape a felon's doom in this world. He was constantly asking if the police had arrived to lodge him in gaol. I then went upstairs to see him, and after condoling with him, and expressing my regret to see him in this unhappy state of mind, suggested what could be done to direct his thoughts into a happier channel. He answered that it was of no use talking to him, that he should not live long, that he never knew when the morning broke whether before night he would not be in prison. In this way he continued to talk, reasoning was of no avail, and so I left him. Two other physicians had pronounced the case to be one of melancholia. We inquired carefully of his wife as to any circumstances which might have thrown him into this distressing state of mind, but we could hear of none. A few weeks afterwards a relative of his called upon and informed

me that the patient had been trustee for some orphans, that he had for many years been appropriating the funds to himself, and that when the time arrived when he knew that the crash must come he broke down, being perfectly unable to meet the shock, took to his bed, and fell into despair. He had been guilty of gross frauds, and every word he said about his own wickedness was correct, and it was only too true that at any moment the police might have entered his house and carried him off to gaol, where he would have spent his remaining years in infamy. To save this disgrace an arrangement was made to refund the purloined money as far as possible, and when this was settled he left his bed, and lived nearly three years afterwards. If drawing a conclusion from premises which turn out to be false does not show the most judicious state of mind, then the supposed mad patient exercised a better reason than his doctors.

OCCASIONAL NOTES OF THE QUARTER.

County Boards and County Asylums.

We have had a series of newspaper cuttings supplied to us which afford a striking commentary upon the question of County Boards in their relation to County Asylums.

If, as seems probable, a County Boards Bill should be introduced by the Government and become law, and the constitution of these Boards be such as it probably would be, County Asylums being brought under their jurisdiction, the first blow will have been struck at the prosperity of the County Asylum system, which now reflects so much credit upon the humanitarian spirit and organizing capacity of the educated class in this country.

The ordinary guardian of the poor is too often only a guardian of the rates, whose instinct is the keeping down, at all cost, of present expense. He seems to have no foresight except in so far as it leads him to look to the future to make its own provision for its own charges. There is, indeed, too much evidence that this is so. Before the Government grant of four shillings a head for patients in asylums was provided, there was constant complaint that the recovery of patients was interfered with, and the ranks of permanent pauper lunacy swelled, by the detention in

"COUNTY BOARDS AND COUNTY ASYLUMS."

Members of the Association wishing for copies *(gratis)* of the above article for distribution, are requested to communicate with the Editors of "The Journal of Mental Science," without delay.

workhouses, at a reduced rate of maintenance, of patients in acute states of insanity, whose cases could only be properly and efficiently treated in asylums. Now that the grant has been made, the complaint, as is shown by the recent report of the Commissioners in Lunacy, has changed its direction, and is to the effect that everywhere patients who might be properly maintained in workhouses, with a little present expenditure in extra diet and better accommodation, are sent to the County Asylums because of the grant from the Consolidated Fund. This comes equally out of the pockets of the ratepayers, but it has a general and not a local source, and so the pressure of its incidence is unnoticed and unfelt.

The Committees of County Asylums throughout the country at present consist generally of gentlemen of education and position, who have both a large personal interest in securing an economical administration of county finance, and an enlarged appreciation of what constitutes true economy.

They know that present parsimony in certain directions implies a large necessary expenditure in the future, and all experience goes to prove that this is so in an especial degree with reference to the care of the insane.

In their accommodation and treatment what may be called the fringe of expenditure is especially valuable. The decoration of rooms and the provision of suitable amusements undoubtedly have a deep moral influence in the cure of insanity. But they are not absolutely necessary, and is it to be supposed from what is seen and known of the typical guardian that he will be willing to continue an expenditure in respect of them when he is unable accurately to weigh or measure the advantage to his pocket which is derived from them?

So also with reference to the salaries and pensions of the superior officers. The present Committees, with some few unfortunate exceptions, know that ability and efficiency are commodities which possess a money value, and are deserving, even from a selfish standpoint, of recognition at the hands of those who use and profit by them.

Will this be so by those who, adopting trade union principles, place every one upon a common platform of so much work, so much pay, irrespective altogether of the quality of the work or the ability of the worker?

The experience of a large number of Boards of Guardians shows us clearly that the most frequent form of estimating the value of a man's services is comprised in the usual

expression, "We can get plenty of men to do the work for less money; why give a larger salary?" Apply this to the superintendent of an asylum, and it requires no stretch of imagination to foresee what the result must inevitably be. If ability has its money value, unless the money is forthcoming men of ability will gradually cease to enter the service.

Asylum life, whatever its outward aspects may be, is especially trying, as the framers of the law have affirmed by shortening the term of service necessary for the earning of a pension under ordinary circumstances, and it needs the inducements which are offered in a liberal salary and a subsequent pension to secure from the best men the devotion of the best years of their lives to such a service.

Will County Boards be likely to recognise these claims and continue these inducements?

Let us see what action has been recently taken in a western county by men who are clamouring for the establishment of County Boards, and, we suppose, are such as will largely constitute them.

It appears that the Superintendent of the Gloucester County Asylum, after nineteen years' service, has resigned his appointment from ill-health, and that the Committee of Visitors, after careful consideration of his claims, have recommended to Quarter Sessions that he should receive a pension of £550, equal to the amount of half his salary, not reckoning allowances.

This recommendation would seem to have excited, in a remarkable degree, the rate-saving instinct of the guardian class, and one Board after another has passed resolutions condemnatory, some of the specific amount, and others of the pension system altogether, in a manner which augurs ill for the future claimants of pensions under the reign of a County Boards Bill.

The following letter to the Gloucester newspapers, by Mr. W. Priday, Chairman of the Gloucester Highway Board, Brockworth Court, dated Oct. 10, 1882, gives the views which are typical of this class:—

"The resolutions passed by the Westbury-on-Severn and Cheltenham Boards of Guardians (and the consideration of the question by the Gloucester Board to-day), condemnatory of the action of the Visiting Justices in voting a retiring pension of £550 to Mr. Toller, will be endorsed by every true

local taxation reformer in the county. As far as possible I would avoid introducing the name of that gentleman into the controversy, as it is with reference to the general system rather than to this individual case that I wish principally to refer. It appears to me that the time has come when a direct stand must be made against these extravagances, and one would have thought that with agriculture, figuratively speaking, down and bleeding at every pore, the County Authority would in this case have held their hand.

"I never could understand why officers of public bodies (in many cases already overpaid) are more entitled to or should be led to expect a pension upon their retirement any more than the trustworthy or toiling clerk in many private establishments. It is true the law says these pensions may be—mark you, not shall be—granted, and the only answer would seem to be that collectively men are more inclined to be liberal with public monies than individually they are with their own. County Lunatic Asylums, rightly considered, are in no sense local liabilities any more than the army or navy themselves, and if the Imperial Government. by the law, is anxious to perpetuate, not to say encourage, such wasteful expenditure, by all means let such institutions be taken over, and supported from the national funds, in which case these requisitions would be made upon the many, and not, as now, extracted from the pockets of the few; but even taking the law as it stands, does any one for a moment suppose that under a representative County Board this grant would have been voted?

"I answer emphatically, No. There are those who argue that, were this system established, the expenditure would be as great as now, and who are inclined to say with Hamlet that 'it is better to endure the ills we have than fly to others that we know not of.' For my part I feel no apprehension, but, on the contrary, am firmly convinced that greater economy would be practised. There are other appointments with the salaries thereto attached besides the one to which this letter chiefly alludes, such as the Clerkship of the Peace, the County Treasurership, and others, which would be considerably overhauled at the hands of a County Board. Without wishing to disparage those who through birth, territorial possessions, or social standing happen to belong to the County Authority, it is nevertheless a fact that the management of County Finance and County Government by a body of gentlemen appointed by

the Crown is a relic of the past, is contradictory to the principle of representative government, and is day by day becoming more distasteful to the ratepayers.

"The Court of Quarter Sessions have yet a loophole out of this difficulty. They may wisely refuse to sanction the proposal of the Visiting Justices, and by so doing will earn the gratitude of the ratepayers, and would be showing deference to public opinion, which is everywhere being so strongly expressed against so large a grant."

In the report of a meeting of the Gloucester Board of Guardians, the views of those who compose it are given as follows:—

THE SUPERANNUATION OF MR. TOLLER.

The CHAIRMAN said that at the last meeting Mr. Lawrence gave notice of the following resolution:—"That in the opinion of this Board the amount of superannuation recommended by the Visiting Justices of the Gloucester County Lunatic Asylum to the late superintendent, Mr. Toller, is excessive, and that a memorial from this Board be forwarded to the Court of Quarter Sessions, suggesting a reduction in the proposed superannuation allowance."

Mr. LAWRENCE said that taking all circumstances into consideration, and considering the very great depression that existed among agriculturists, from whose pockets the amount for the superannuation would chiefly come, he felt that he was warranted in bringing the motion forward. He was sure that, as a representative of the ratepayers, he should not be doing his duty if he did not use every effort in his power to lessen the burden placed upon the ratepayers' shoulders (applause).

Mr. MURRELL seconded. He considered that during the time that Mr. Toller had executed his duties he had received an ample salary. It was wrong in principle, he considered, that such officers should be paid superannuation, because superannuation to a greater or less extent meant a burden falling on occupiers of land or buildings, and they all knew that the charges on occupiers of land had recently been rapidly increasing year by year (hear, hear).

Mr. DANIEL LONG—What is the length of Mr. Toller's services? (Voices: 19 years).

Mr. LONG said he should not have many remarks to make on this subject, as he did not understand it enough. It was high time that the county rate should be controlled by representation instead of as at present (hear, hear). The borough rate was controlled by the representatives of the people, but so far as the county rate was concerned the ratepayers were subjected to those who contributed very little towards it. It was high time that the county rate should be levied through the medium of representation (applause).

The Rev. F. E. Broome Witts said he had grave doubts as to whether the Board of Guardians were not overstepping their right in entertaining the matter at all as a Board of Guardians (no, no). As a public body he considered they were quite entitled to express their opinion; he had, however, very grave doubts as to whether the Board were not overstepping their rights as a Board of Guardians in this discussion. The matter was in the hands of another body (no, no). The question as to whether there should be county boards or whether the ratepayers should be governed by magistrates was another matter altogether. As far as the asylum was concerned he thought they simply had power to appoint a committee who should look after the interests of any paupers who might be in that institution. As to how far they had carried out that power of looking after the paupers in the asylum he did not know, but he believed they had been rather lax. He had been told on good authority that of all the unions in the county there was only one union—and he did not think that was the Gloucester Union—which exercised that power. As far as he was concerned he did not entirely concur with Mr. Lawrence. He did not wish in any way to oppose the motion before the Board, but at the same time he did not think all the circumstances of the case were before them as a Board of Guardians. He should have liked Mr. Lawrence to have told them, for instance, what had been done in other counties where superannuations had been made for similar service. He believed the point as to how questions of this sort were decided in other counties was considered by the Asylum Committee, and that they had taken the fairest average they could in recommending Mr. Toller's superannuation. He thought the ratepayers could very well leave their interests in the hands of the present Asylum Committee.

Mr. Inskip said the magistrates would sign the mandate calling on them to pay whatever might be apportioned to come from the Gloucester Union. He thought that alone would give the Board of Guardians the power to remonstrate—or he would not say to remonstrate—to ask the magistrates to exercise caution as to the amount they would grant (hear, hear). He did not think for a moment that the consideration of this question was beyond the scope of the Board's duties. He thought it rather lay within their scope. They should protect the ratepayers as far as they possibly could in every matter affecting their pockets (applause). The ratepayers were looking to them. They were already complaining about the amount of county rate, and there was an agitation going on about county boards. He quite thought it was their duty as well as it was their privilege to ask the magistrates to exercise a due degree of vigilance in the affairs of the county, and to administer affairs with rigid economy, and to consider whether they were not proposing to allow a little larger sum than Mr. Toller would require (hear, hear).

Mr. Long was surprised that Mr. Witts should say that the Board of Guardians had nothing to do with a question which affected the

rates. He contended that they had a perfect right to discuss such a motion as Mr. Lawrence's at the meeting of the Guardians, and elsewhere—at the meeting of the Highway Board for instance (applause).

Mr. Sessions thought that though the matter might not be exactly in the Board's province, yet it did belong to them as the representatives of the ratepayers. The superannuation fund would certainly be paid out of the county rates, but they were called upon to pay a portion of those rates, and that being so, he thought they had the power and the right to make a remonstrance, if they chose (hear, hear). If it were not that they had to speak in the matter as the representatives of ratepayers, he should contend that they had nothing to do with it.

Mr. Dainty remarked that the Board of Guardians had to find some of the money for the superannuation, but had no voice in the deliberation as to the amount of superannuation, beyond sending a memorial expressing their opinions to the proper quarter (hear, hear).

Mr. Byett suggested that such a memorial should also be sent to the Local Government Board, as although certain superannuation might be voted by magistrates, it might not be confirmed by the Local Government Board. Mr Byett was told, however, that the Local Government Board had nothing to do with the matter.

Mr Ward, looking at the circumstances all round, he thought the superannuation proposed was excessive (hear, hear). When Mr. Toller was appointed there were a number of applicants for the position, and he accepted with pleasure a salary of £500 a year. Since that time the salary had increased to £1,150. The duties had not increased, however, in proportion to the increase of salary (applause). There was one assistant when Mr. Toller took the post. Since there had been an increase in the number of inmates there had been another assistant, and therefore the duties remained something like they were when Mr. Toller was first appointed, while the salary had so largely increased. Was it reasonable for a man to have a superannuation greater than the salary which he received when first appointed? It seemed to him most monstrous. It was unfair to the ratepayers of the union, and unfair to the county, that this superannuation should be allowed (hear, hear). It was at the cost of the hard-working people, not of those who apportioned the amount, that it would be paid. It would come out of the industry of the hard-working community (hear, hear). If the land could not be made worth anything, the money would not be paid at all. Therefore, as a ratepayer, he objected to the payment on principle. It seemed monstrous that a man should receive £550 as superannuation on retiring from a post which he was glad to accept at £500 (applause).

The Chairman quite agreed with Mr. Lawrence's resolution, and was very pleased that the discussion had taken a proper form that morning. Mr. Broome Witts had been perfectly right. It was a little foreign to their duties to discuss this motion, but still it was

the only chance they had of expressing an opinion, and therefore he thought the discussion was quite in order (hear, hear). He, for one, entirely disagreed with the superannuation principle altogether (applause). What he would like to do was to pay everybody properly and let them superannuate themselves (hear, hear). He thought they must give the magistrates credit for having endeavoured to do everything they could not to increase the ratepayers' expenses at the present time. (A voice : I don't know, sir.) They were not increasing expenses at the present time, but what he found fault with them for was not taking advantage of a very good opportunity for a little decrease (applause). If they had agreed upon a smaller amount for superannuation there would have been a slight decrease. At present there was no increase because the gentleman appointed to take Mr. Toller's place would receive £750. The superannuation of Dr. Williams (a former superintendent, who received £300 a year) had ceased, and altogether there had been no increase. He thought, however, that where a gentleman had been receiving £1,150 (including a house) for performing duties which another gentleman was appointed to undertake at £750, there had been ample opportunity for the former gentleman to have superannuated himself (applause).

The resolution was then put to the meeting and carried unanimously. A copy of the resolution will be sent to the Court of Quarter Sessions.

The moral of all this would seem to be that whenever the Guardian class comes into power with a mission to control county finance, the doctrines inculcated by the writer and speakers in the above extracts will have a practical application whenever and wherever the salary of a new superintendent, or the pension of a retiring one, have to be considered ; and that it, therefore, behoves the Parliamentary Committee of our Association to narrowly watch the terms and course of whatever County Boards Bill may be introduced, and the members of our specialty to render them such assistance as is within their power.

Since the above was written a Conference took place on November 18th, in the Shire Hall, Gloucester, between the Visiting Committee of County Justices to the County Asylum and delegates from various Boards of Guardians and other authorities in the county, with regard to the proposed grant of a pension of £550 per annum to Mr. Toller.

That the Guardian voice should be allowed to make itself heard in this question is an entirely new departure in the history of the management of pauper asylums, which have hitherto been under the control of county justices who have

usually been undeterred and uninfluenced by popular clamour, and it is significant of the serious and impending danger to the best interests of the insane poor and the staffs of asylums when these are placed under the jurisdiction of County Boards.

We think it desirable to place on permanent record the following very important discussion (slightly abridged), that took place at the said Conference, which was attended by some 14 members of the Committee of Visiting Justices, including Mr. J. E. Dorington, County Chairman, and Dr. Ancrum, Chairman of the Asylum Committee, and between 30 and 40 members of Boards of Guardians, generally represented by Chairman or Vice-Chairman.

Special attention is drawn to the speeches of Mr. J. E. Dorington, County Chairman, and Dr. Ancrum, the Asylum Chairman, in which they make a reasonable, just, and able defence of the principle of superannuation, for which they deserve the warmest thanks of asylum officers generally, as well as an able defence of the action of the Asylum Committee with regard to the particular matter in question.

Attention is also drawn to the speech of Mrs. McIlquham, representative of the Tewkesbury Board of Guardians, as showing the spirit in which this lady Guardian would be likely to deal with asylum officers, if she had a voice in the management and became a member of the County Board Asylum Committee as representing the Tewkesbury Guardians.

This is another new departure from the old order of things, not to be contemplated without some misgiving, if, as seems probable, lady Guardians will be eligible for election in County Board Committees as representatives of Boards of Guardians.

The concluding portion of this discussion is very significant, for Mr. J. Ward, one of the representatives of the Gloucester Board of Guardians says, "The opinion generally of the ratepayers is that there should be no pensions whatever."

We are indebted for the report of the Conference to the "Gloucester Journal," Nov. 25, 1882.

On Saturday last (Nov. 18), a Conference took place between the Visiting Committee of the County Justices to the county asylum and delegates from various Boards of Guardians and other authorities in the county, with regard to the proposed grant of a pension of £550 per annum to Mr. Ebenezer Toller, late superintendent of the county

asylum. Dr. W. R. Ancrum (Chairman of the Visiting Committee) presided.

The COUNTY CHAIRMAN (Mr. Dorington) said that, in accordance with a resolution passed at the last Quarter Sessions, the Committee of Visitors had invited the representatives present to meet them that day in order that they might state their objections to the proposed pension to Mr. Toller. Dr. Ancrum took the chair as Chairman of the Committee of Visitors, and would make a statement to them as to the grounds upon which the amount of the proposed pension had been fixed by the Committee of Visitors—as they thought necessary.

Dr. ANCRUM said the deputation was probably aware that Mr. Toller's pension was granted under the statute of 16th and 17th Victoria—the Lunatic Asylums Act, 1853—which stated as follows: "In case any superintendent, chaplain, matron, or any officer or servant of any asylum become from sickness, age, or infirmity, incapable of executing the office in person, or have been an officer or servant in the asylum for not less than twenty years, and be not less than fifty years of age, it shall be lawful for the Committee of Visitors of such asylum, if in their discretion they think fit so to do, but not otherwise, to grant to such superintendent, chaplain, matron, or other officer or servant such annuity by way of superannuation as they in their discretion think proportionate to the merits and time of service of such superintendent, chaplain, matron, or other officer or servant (whether incapable from sickness, age, or infirmity, or retiring from long service and age), and every such annuity shall be payable out of the rates lawfully applicable to the building or repairing of such asylum," &c. The Act was passed in 1853, and in 1862 a Committee of the House of Commons sat on the subject of lunatic asylums, and made a report, to the following paragraph of which he would call their attention :— "It would seem desirable to reduce the time at which the Committees of Visitors may grant superannuation allowances to their medical officers. Their duties are so peculiar, and such painful consequences are known to result from incessant intercourse with the various forms of this distressing disease, when prolonged for many years, that your Committee believe it would tend to greater efficiency of service if the period which stands at present at twenty years were reduced to fifteen years." This was from the report of a committee which took evidence on the subject, and in the passage he had quoted the committee deliberately stated its opinion that a person who took the superintendence of an asylum was placed in so peculiar a situation that he deserved increased consideration from those who granted him an annuity. When the Act of 1853 was passed there was no appeal from the action of the Visiting Justices, who had full power to grant a pension, and the pension was chargeable on the rates. In 1862, however, in consequence of the report of the Committee of the House of Commons, the action of the Visitors was modified. The length of service at which a pension could be granted was diminished to fifteen

years, and it was further provided that the annuity should not be chargeable or payable out of the rates of any county until such annuity should have been confirmed by a resolution of the Justices of such county in general or Quarter Sessions assembled. Mr. Toller was elected to the post of medical superintendent to the Gloucester county asylum in 1862. At that time his salary, inclusive of perquisites, amounted to £900. Five years afterwards it was increased to £1,000. Four years afterwards it was increased to £1,100, and at that sum it remained for some time. It was afterwards increased by £50 for one year, and thus stood at £1,150. The perquisites of the office had been commuted to a money payment, and latterly Mr. Toller had received £50 more on account of the assistance he gave in superintending the patients at the Second County Asylum. During the period of Mr. Toller's service there had, of course, been various reports of the Visiting Justices, and reports of the Commissioners in Lunacy as to the state of the asylum, and he (the speaker) would refer to some of those reports in order that the meeting might know what was the opinion of the Commissioners and of the Visitors as to the way in which the asylum had been conducted. He had before him a large number of reports and extracts from reports, some of which he would read. He would not read them all, as he should only weary the meeting by so doing, but would state shortly a few of the extracts. In 1865 the Commissioners reported :—" Our visit to-day has satisfied us that Mr. Toller is discharging his duties with energy and ability ; and that the institution is, in general, in a very favourable state." In 1867 the Committee of Visitors' report stated that " The successful treatment and cure of confirmed chronic lunatics on a large scale, as has been accomplished in this asylum during the last four years, appear to be new features in the treatment of lunacy and to be unequalled, as they believe, in the experience of other county asylums. . . The Visitors need scarcely remark that these cures could not have been effected without the exertion of a more than ordinary amount of energy, ability, and vigilance on the part of Mr. Toller and his subordinates." The Commissioners' report for the same year stated that " The condition of the asylum is upon the whole, very satisfactory ; and Mr. Toller evidently continues to devote his best attention to the welfare of the inmates." In 1868 there was an extract from the Committee of Visitors' report which stated : " Still the Visitors have great confidence in the skill and unwearied exertions of their superintendent, Mr. Toller . . . remembering that five years ago—" the state was so and so. The Commissioners' report for 1868 stated that " The condition of the asylum continues to be, upon the whole, very satisfactory ; and Mr. Toller, who shows an intimate knowledge of the cases of the patients individually appears to devote his best energies to the discharge of his onerous duties as superintendent." In 1869 the Committee of Visitors' report stated that " The whole working of the asylum has gone on satisfactorily

during the year." The Lunacy Commissioners' report for the same year stated that "The management and state of the asylum continue most creditable to Mr. Toller as superintendent." The Committee of Visitors' report for 1870 stated "Such had been the system attempted in this county and carried out with the success indicated under the able superintendence of Mr. Toller," &c. The Commissioners, in their report for the same year, said: "Mr. Toller is, we think, entitled to great credit for the pains he has taken to provide for the amusement of the patients. . . . We have had abundant evidence of Mr. Toller's anxious desire to promote the efficiency of the institution and the welfare of the inmates." In 1871 the Commissioners said: "It gives us pleasure to have still to remark, as on many former occasions, how much is done here to counteract disadvantages incident to the many structural defects of the wards by the liberal supply, not alone of associated amusements, but of ward entertainment and occupation. . . . Mr. Toller continues to labour zealously and successfully in his important duties." In 1872 the Commissioners said: "We have again to bear testimony to the able and zealous manner in which Mr. Toller discharges his duties as medical superintendent." In 1873 the Commissioners' report said: "All this is to us very satisfactory as showing that the patients here are well cared for by those in whose hands are vested their charge and treatment." In 1876 the Commissioners' report said: "This is not the time of the year when the airing courts look their best, but their condition shows that the superintendent does not, while studying the comfort and welfare of his patients indoors, overlook what is essential to their health and enjoyment when taking exercise within the asylum precincts." In 1877 the report of the Committee of Visitors stated that "Great credit is due to the medical superintendent . . for the various means employed for entertaining the inmates." In 1879 the Commissioner's report stated as follows: "We have devoted the whole of yesterday to the inspection. . . . We are, upon the whole, able to report favourably. Serious defects no doubt exist; some of these arise from the original defective plan and construction of the building, and others from the fact that the accommodation is insufficient in extent for the number of patients whom it is at present necessary to receive here. . . . Yet there was no undue excitement during our inspection. Nor was there much complaint on the part of the patients." Turning from these extracts to others from the general minutes of the Visitors, in July, 1868, one of these minutes stated: "The application of the superintendent for an increase of salary in accordance with the notice of the last meeting having been considered, the Committee unanimously determined to increase his salary £100 per annum, in testimony of their high appreciation of the zealous and able manner in which he has discharged the duties of his office." In 1873 the salary was increased from £600 to £700. In 1877 an

application was made by Mr. Toller for another increase of salary, and it was resolved that in consideration of his past services a further addition of £50 should be made to his salary. It might appear to some of the deputation that the salary of the superintendent had been large. It was all very well to say that this county was more economical than other counties. It had been so in most respects, but in certain matters they must follow the general average of the whole of England. If they expected to have a good medical superintendent they must pay him according to the rate at which superintendents were paid in other asylums. He had taken the pains to abstract as far as he could the records of the payments in twenty-four of the principal asylums in Great Britain—similar to the asylum in Gloucestershire—and he found that out of those twenty-four asylums twelve paid their superintendents either £1,200—a similar salary to that received by Mr. Toller during the last three years of his service—or else a larger sum. He did not mean to say that these statements as to salary were absolutely accurate. He had taken them, assisted by a person who was an expert in these matters, and he believed he had not overrated the amounts. In most of the asylums the payments made to the superintendents took in the form of certain perquisites, and it was impossible to calculate exactly how much was the money value of these perquisites. He believed that the Gloucester asylum was almost the only asylum in Great Britain in which no perquisites—except a house, landlord's repairs only to which were done by the Committee—were paid to the superintendent. In all other asylums there were perquisites of some kind given—more or less. Taking the whole of the twenty-four asylums he had referred to—and in most of them the number of patients was less than in the Gloucester County Asylum—the payments to the superintendents in twelve of them averaged either £1,200 or exceeded £1,200, including perquisites. He would also state that in calculating the payments made in these asylums it must be recollected that superintendents, when first appointed, never, he might say, received the total sum they did after they had been some time in the employment of the county. They entered the service in the asylums at a lower amount than they afterwards received, and this amount was increased gradually according as the merits of the superintendents were appreciated by the Visitors. He (the speaker) had also taken the averages, as far as he could get them—for in some of the reports one could not get the statements accurately made—in the cases of twenty-two asylums of the cost of salaries and wages per week. The average was 2s. $1\frac{3}{4}$d. per week for each patient in the twenty-two asylums of which he had been able to obtain reports. The average cost in Gloucestershire was 2s. $\frac{1}{8}$d. (hear, hear). Therefore the cost in the Gloucester asylum was below the average, and there were only seven asylums in Great Britain in which the weekly cost was less than in Gloucestershire, and they were less by $\frac{1}{2}$d., 1d., or $1\frac{1}{4}$d. only. Therefore it might be said

that the Gloucester Asylum was not conducted in a lavish manner. Referring to the extracts from reports which he had read, he wished to state on the part of all those gentlemen on the Committee, and himself especially, who were not inexperienced in what went on in an asylum, and who alone had the best and only opportunity of knowing how the asylum was conducted, that as far as Mr. Toller's talents or ability went, he had proved a most energetic and zealous servant of the county—and there was not a dissentient voice among the members of the Committee in stating that. The Committee stated so positively, and if any reports had gone forth that Mr. Toller had neglected his duty or been deficient in attendance, he (the speaker) could say that such conduct on Mr. Toller's part was not known to the Committee of Visitors, and the Committee believed the contrary. The members of the Committee were all thoroughly convinced that as far as Mr. Toller was able he had done his duty thoroughly and efficiently. He would turn now to the question of pensions granted in other asylums. It must be recollected that it was not a new thing for the Court of Quarter Sessions to grant pensions. It was a new thing that their action was questioned, and it must not be supposed that the Committee of Visitors of the Gloucester Asylum, consisting of gentlemen of experience in the affairs of the county, which had been conducted according to the tradition of economy which had always prevailed in this county, should neglect that principle of economy, and should wish to be lavish to any person. The Committee had acted under the precedents they found to hold good throughout the whole of Great Britain. It was useless to say, "You shall not act according to that precedent." They must do so. They could not employ a proper person unless they did so. This question was to a certain degree a medical question. The public did not understand the cares and anxieties which were attached to such an office as that of a medical superintendent of an asylum, and the importance of possessing a talented, energetic, and efficient person. When it was said that medical superintendents were overpaid, it must be recollected that they were exceptional persons. Fifteen instances had been collected of the granting of pensions to medical superintendents in asylums, and it was found that in every instance, except three, amounts equal to more than half the salaries and allowances had been granted. One of those three instances was that of the late Dr. Williams, of Gloucester Asylum, who had a salary and perquisites estimated to amount to £800, and who received a pension of £300. This instance might seem to be a precedent which it would be appropriate to follow in the present case. He might be allowed to state, however, that Dr. Williams received an injury from a bite—he was bitten in the hand by a patient—and was himself desirous of retiring from the service of the county. He was not like Mr. Toller, who was most anxious, had his health permitted, to be able to continue in the service of the county, but he desired to retire, and he (Dr. Williams) having private means, said to the Com-

mittee, "If you will give me £300 as pension I shall be glad to retire." It was not in consideration of what his services had been; but Dr. Williams himself asked for and fixed the amount of his pension at £300. He (the speaker) said that this single instance, in which a person had been in the service of the county seventeen years—not so long as Mr. Toller—did not hold good as a precedent. The two other cases to which he had referred were small cases, one of the pensions having been granted forty years ago. A small sum was in that case granted; the superintendent had only made thirteen years' service, and he retired forty years ago, before this Act of Parliament came into operation. The County Chairman had suggested to him that it would be well to state the returns of which he had been speaking, and he would do so. At Hanwell Asylum the total annual value of the superintendent's post was £700, and he retired with a pension of £466 13s. 4d.—the highest amount possible. At Colney Hatch the salary was £900, and the superintendent retired with half his salary. In the West Riding of Yorkshire the superintendent, after twenty years' service at a salary of £1,200, retired with a pension of £533 6s. 8d. At Whittingham the salary was £1,225, and the superintendent retired with a pension of £750. In a Kent asylum the superintendent, having received a salary of £400, retired with a pension of £150; this was the case which occurred forty years ago. In the same asylum seventeen years ago, a superintendent having received a salary of £500, retired with £350; and in another case in the same asylum, after 12 years' service at a salary of £900, the superintendent retired with £400—not even having served the statutable time. In this county the late Dr. Williams, after 17 years' service at £800, retired with £300, under circumstances he had already explained; while Dr. Boyd, in Somersetshire, after 21 years' service at £800, retired with a pension of £450. In a Suffolk Asylum the salary of the superintendent was £1,000, and his pension £600; in a Surrey Asylum the salary was £1,300, and the pension was £700; in a Derbyshire Asylum the salary was £800, and the pension £400; in Denbigh, Wales, the salary was £500 and the pension £330; and in Bristol, Dr. Stephens' salary was £500 and his pension £250—he not having finished the full time. There was another case at Dean in which the salary was £750 and the pension £500. In granting these pensions it was absolutely necessary that there should be some basis on which they might be calculated. They must take into consideration the amount of salary accorded to persons about to retire from the public service. In the civil service, according to the Act of Parliament, a man retired on a superannuation allowance according to the salary he had received; and, after the reports which he had read, he held that no man in this world had a greater claim to any privilege which the country conferred than the superintendent of a county asylum. Therefore calculating the pension according to the civil service rate, Mr. Toller would be entitled to a pension of £520, and, had

he been in the service of the country, he could demand a pension of that amount. The Committee of Visitors, who were the only and best judges of what Mr. Toller's services had been, had to do justice to the person whom they pensioned, as they had to take into consideration the payments that were to be raised from the ratepayers of the county. They had not to look upon the question merely from one point of view, but had to look at it all round. They had to do justice to the person whom they considered a deserving individual, and therefore it was that taking into consideration the payment that Mr. Toller received, the precedents of the retiring pensions in all the asylums in Great Britain to the particulars of which they had been able to get access, the civil pension to which Mr. Toller would have had a right by Act of Parliament had he been in the service of one of the public offices of the country, the Visitors had proposed to grant to Mr. Toller a pension of £550. The proposal had not been made capriciously, but after due consideration, and it was based on certain principles. The Committee would be very happy to hear any logical arguments which might induce them to depart from the proposal they had made (applause).

The Rev. H. W. Maddy said he would not weary them with any arguments of his own upon this important question, but merely ask them to kindly hear three members of that large deputation, who would endeavour to explain to them why they thought the sum of £550 was an excessive amount to grant to Mr. Toller, and why, also, they thought the pension should be reduced to the lesser amount of £350 (applause). First, Mr. Maddy called upon Mr. Cadle, who, he remarked, was entitled to speak first, as he was the prime mover in the matter (hear, hear).

Mr. T. Cadle (Guardian) said that Dr. Ancrum had stated to them what Mr. Toller's salary was at various periods of his service, and he thought that they should put the salaries together so as to arrive at a proper sum which should be granted as superannuation. He had worked out that and found that if they calculated the average amount of Mr. Toller's salary according to the number of his years of service the average amount had been £1,042.

Dr. Ancrum—That is correct.

Mr. Cadle, continuing, said if they took 19-60ths of the average sum—£1,042—they would arrive at the sum of £347.

The County Chairman—That is without the addition of seven years.

Mr. Cadle—Without the addition.

Dr. Ancrum remarked that in the Civil Service it was obligatory to pay on the highest salary of the last three years.

Mr. Cadle said of that he was perfectly well aware, but then came the question, were there any grounds on which the magistrates should do so in this case? Was it right that they should do so under the present circumstances? Dr. Ancrum had previously referred to the

resolution which he (Mr. Cadle) proposed at the Board of Guardians at which he had had the honour to sit for thirty years, and one argument Dr. Ancrum used in favour of the proposed pension was that the superannuation allowance proposed to be granted to Mr. Toller now and the salary given to the new superintendent did not increase the rates, because the salary that was given to Mr. Toller and the pension to the late Dr. Williams were more than was proposed to be expended now in the salary to the new superintendent and the pension to Mr Toller. But was this a time, or had it been the time for the last seven years, when they should go to the extreme amount possible? He stated in his resolution that it was very difficult to collect the rates from what he declared to be the already over-burdened ratepayers. He thought that that difficulty was actually experienced, not only in the Union he represented, but in all the Unions in the county (applause). There were gentlemen present who knew the mineral district within his Union, and could anything be more deplorable than the state of things there? Thus, the difficulty of collecting the rates was, he thought, a ground why they should not go to the extreme amount they were entitled to give.

Dr. Ancrum—Excuse me for interrupting you, but the extreme amount Mr. Toller is entitled to is £800.

Mr. Cadle said he would admit it if ten years' service were added.

Dr. Ancrum—No, according to the Act of Parliament.

Mr. Cadle, continuing, said that to show the difficulty there was in collecting the rates and the increase in the rates which had taken place during the last twenty years, he would take an instance in his own parish. He found that that parish twenty years ago was assessed at a sum of £12,900, and the rates were a little under 1s. 8d. in the £; the parish was now assessed at over £20,000, and they had great difficulty to manage with a rate of 1s. 10d. in the £. He thought this was convincing proof that the rates were increased, and that this was a wrong time to give a high pension. He arrived now at another point. The magistrates had appointed a gentleman to Mr. Toller's vacant office, who, he had no doubt, was an efficient person, otherwise they would not have appointed him. The salary given to the new superintendent he believed was £750—the County Chairman, he thought, gave him that information some time ago. Should they not assume, or had they not a right to assume, that the salary of the new officer's predecessor was in excess of what it should have been—(applause)—and was that not a ground why the magistrates should not give the large pension they proposed to do? He had calculated this matter, and would like to say that if they calculated the amount of pension to be given on the salary given now to the present superintendent the allowance would be only £270 a year, instead of £347 (hear, hear). He might be allowed to make one other remark. Sir Michael Hicks Beach, in his speech at Quarter Sessions, said they should not be ruled by popular clamour in reference to this matter.

He did not say that Sir Michael was not right in that remark, but in the case of most things that had been accomplished during the last fifty years there had been a great deal of popular clamour before anything was passed in the Houses of Parliament. He (the speaker) had received numbers of letters from various parts of the county, since he brought this matter before the Board of Guardians, of which he was a member. He had been asked to arrange for public meetings to be called in all parts of the county with reference to the proposed superannuation allowance, and he had had one or two letters from gentlemen asking him to request Sir Thomas Crawley Boevey, the High Sheriff, even to call a county meeting for the purpose of representing that the proposed pension was too high. At the preliminary meeting on the previous Saturday it was unanimously decided to ask the magistrates to reconsider this matter, and not to grant a higher sum than £350 per annum (applause).

Mrs. McIlquham, who represented the Tewkesbury Board of Guardians, said—I am perfectly well aware from what Dr. Ancrum has stated that this pension is not calculated on the Civil Service basis. But still the Civil Service has been cited as a guide by which we are to judge whether this is a fair pension or not. According to the report in the "Gloucester Journal," Mr. Toller entered the service of the county July 1st, 1863. His resignation took place, I believe, in July of this year. If so, his term of office was nineteen years and a few weeks. Civil Service servants are expected to give forty years of service, and are not entitled to any pension unless they have served twenty years, and then only if they are over 60 years of age, and can produce a medical certificate to show that they are quite broken down in health. Mr. Toller's age is given as 59; he is therefore one year below the standard of age and length of service.

The County Chairman said there was a special provision in the Act.

Mrs. McIlquham continued—Besides these concessions the loss of time and emoluments were taken into consideration by the committee, and the pension was calculated on £1,200 instead of £1,100, the actual salary. There was further granted seven years of "added service." By this method the proposed pension was swollen to £540, when a final addition of £10 was given to make, I presume, the even amount of £550. According to my calculation on Civil Service rules, I think Mr. Toller's pension should amount to £366 13s. 4d; but he is not entitled to even that, he being under 60 years of age, and not having given the minimum amount of service. The reasons assigned for Mr. Toller's retirement are that he was recommended to do so by the Visiting Committee on account of ill-health. I should not question that statement but that I have here a letter from the Home Secretary, dated July 17, 1882, sent to a Mrs. Driver, of Standish Lodge, Stonehouse, promising that the circumstances attending the death of Walter Partridge shall "receive his most serious

consideration." The letter was addressed to a person who in the previous year, namely 1881, had through the Home Secretary brought charges of cruelty against officials in the Gloucester County Asylum, which charges were inquired into by a sub-committee of the Visiting Committee, and who reported them as "disproved or not sustained;" the Lunacy Commissioners agreeing that "The general evidence supported the conclusion at which the Visitors had arrived." But when the death of Walter Partridge was made public Mrs. Driver wrote to Sir William Harcourt, again calling his attention to the Gloucester County Asylum, and the Home Secretary replied by the letter of the 17th July, to which I have already referred. Under these circumstances I am sure it would be a great source of satisfaction to many ratepayers and to this deputation if the Visiting Committee can assure us that they advised Mr. Toller to resign before they received any communication from the Home Secretary or the Lunacy Commissioners. Whether on a right or a wrong foundation I cannot say, but unquestionably there is a strong feeling out of doors against Mr. Toller receiving a large pension, and I do not think that feeling has its origin so much in a desire to save the ratepayers' money as in an impression that Mr. Toller did not possess that power of organisation which Dr. Ancrum has told us is so necessary in gentlemen who fill offices like Mr. Toller's. If he had, I think we should have been spared the painful fact of there being two inquiries in two successive years into the management of the Asylum, of the excitement which was caused in the public mind by the superintendent retiring at a time when public feeling was uneasy about the conduct of officials employed at that asylum—officials possessed of so little restraint that they insulted Gloucester jurymen in the streets—and people drew their own conclusions as to how hapless lunatics fared under the control of such men. If all this was due to Mr. Toller's ill-health I think we may fairly say that the county was a loser by Mr. Toller's services before he retired. These reasons are I think at the bottom of that feeling which a medical newspaper styled the parsimony of guardians "accustomed to deal out pittances to paupers." Even if other counties can afford to be extravagant, I am sure Gloucestershire cannot. At a pension of £300 a year the late superintendent, Dr. Williams, received nearly £6,000 out of the county rates; and if the proposed pension of £550 be granted Mr. Toller, we may reasonably expect, he being only 59 years of age, that he will receive a very large sum out of the county rates (applause).

Mr. Onley (Guardian) said he thought Dr. Ancrum would at once see that the Civil Service did not apply to the present case, as it did to many others. It must have been noticed particularly that Mr. Toller had failed in two great essentials, viz., length of service and age; he had failed in those two great essentials, which were specially mentioned in the Civil Service arrangements. It was true that some Act of Parliament had been subsequently passed, but there was nothing that met

the case. Mr. Toller stood before them that day as he stood before the Justices—simply on his own merits. The respresentatives of his own union had been in the habit of visiting the asylum, and had not only had the poor patients before them, but had gone into every place and watched them as closely as possible. They had obtained every information. He was not there to say, for a single moment, that Mr. Toller had not discharged his duties fully, but they had to call him to account, and to call him to account very severely, and for that he (the speaker) was called to account for a report he drew up on one special occasion, when they found many faults in the asylum. They were not inexperienced in these matters ; they had seen them and knew them ; and so far as the patients were concerned they knew them individually, and from time to time they had heard from them everything connected with the asylum. The asylum had been conducted well, but it might have been conducted better (hear, hear). It had been said that the Guardians were opposed to any pension being granted, but he maintained that this was not true. He did not hesitate to say that, as far as his union was concerned, that they had always recognised the pension, and he believed not a person was present at their meeting on the previous Saturday who did not recognise that the pension should be granted. On the other hand, while it was recognised that some pension ought to be granted, the opinion was also strongly held that no pension in the first instance should have been promised (hear, hear), and he told them distinctly that when the time came that they had an elective Board for the County, instead of magistrates self-elected, there would be no pensions granted then, but men would be paid liberally for their services, and would have to save enough to take care of themselves and their families in old age (applause). He could assure them that members of Boards of Guardians would not like to do anything dishonest in such a matter as this, and if Mr. Toller was promised a pension he ought to have one ; but then came the question of amount, and this had been most ably put before them. He had been a Guardian for forty years, and could speak from experience, when he assured them that these were not the times for granting excessive pensions (hear, hear). Mr. Toller had had a good salary throughout his time, and such a salary as dignitaries of the land had not had. Some people said that he ought not to have had his hunting, but the speaker did not agree with this, because it was a recreation Mr. Toller deserved, and one which gave him that energy which he so much stood in need of to enable him to discharge his duties. It was a form of recreation the speaker had been glad to indulge in, and he would not have enjoyed the health he had known during his life of three score years and ten, but for the exercise he had taken. He maintained that Mr. Toller had a right to hunt if he thought proper, but he also thought that having had this immense salary for all these years, and the County having found an efficient man to discharge the duties for two-thirds the amount, they ought not

to give Mr. Toller the maximum pension on his retirement. He thanked them for hearing him so patiently, and he did hope that the Committee would take the matter into consideration, and remembering the condition of the county at the present time—what seasons the poor farmers had to contend with—and seeing the difficulty there was in the collection of the rates, would bring the proposed pension down to the sum mentioned not only by the union he represented, but by every one in Gloucestershire. The sum mentioned—£350—was in excess of what would be given by some unions, but, taking the aggregate, they would be satisfied if the magistrates saw their way clear to satisfying justice both to Mr. Toller and to the ratepayers by fixing the proposed pension at £350 (applause).

Mr. W. Priday (Guardian) said that the deputation had arrived at the amount of £350, for reasons which he would explain. Mrs. McIlquham and Mr. Cadle had put before the meeting statements based in the one case on the Poor Law system and in the other on the Civil Service system. The average of those two came to something like £350 or nearly so. Therefore whatever little differences of opinion the members of the deputation might have had before they met, they agreed to waive them and press upon the magistrates to grant a pension at all events not above £350. One or two of the arguments brought forward by Dr. Ancrum were not, he thought, very strong ones. For instance, when Dr. Ancrum told them they must be ruled by the systems adopted in other counties and must go by precedents, he (the speaker) thought if they were to go upon that system *ad infinitum* they should never arrive at anything fresh. Some county must set an example in this respect, and when it was considered that agriculture was never more depressed than at the present time, he did think a beginning might be made in this case. Dr. Ancrum had also said that he was not aware of any irregularities having taken place at the asylum. Nevertheless they must not forget, judging by the results and looking at what had taken place as reported in the newspapers, that it seemed at all events that things had not been managed with that roseate hue with which some gentlemen would seem to colour them (hear, hear). He would like to say one or two words as to the future good which he thought would be the result of this meeting. It was quite clear that Mr. Toller must have some superannuation allowance granted to him, he having entered on his service with the full understanding that he would have a pension, but he (the speaker) wanted Gloucestershire to set an example in this respect, and he wanted the gentleman who had recently been appointed to Mr. Toller's late office, and those who would in the future be appointed, to understand—and he was sure the deputation also wanted them to do so—that the opinion of the ratepayers was decidedly and definitely against pensions altogether (hear, hear).

Dr. Ancrum—There is the Act of Parliament.

Mr. Priday, continuing, said if the ratepayers had not set their

face against pensions altogether, they were at any rate in favour of reducing them to the minimum extent and not of straining them to the highest point. At Quarter Sessions the County Chairman had put forward statistics as to the amounts given in other counties, but, as he had just said, he thought Gloucestershire was of sufficient importance to set an example in this respect, and that it should not always be looking out to see what other counties were doing. He was very pleased that the deputation had been invited to discuss this question in a friendly manner. Whatever preliminary opinions might have been entertained by the members of the deputation before the previous Saturday, at their meeting on that day they came to the definite conclusion that a sum should be granted not less than £350 (applause).

Mr. Onley—Did Mr. Toller retire of his own accord, or was he requested by the Justices to retire?

Dr. Ancrum—No, he was not.

Mr. Cadle thought it was not fair to ask that.

Mr. Onley said he had been asked to put the question.

Dr. Ancrum said the state of Mr. Toller's health was such that he could not discharge his duties. He was advised by his medical man that he could no longer discharge his duties as superintendent.

Mr. Onley—Then he retired at his own wish, not at the discretion of the Justices?

Dr. Ancrum—Certainly.

Mr. Onley—That is the answer—"certainly."

Mr. Iles (Cirencester) said a statement he wished to refer to was that Dr. Williams had £800 a year salary and a pension of £300. If one superintendent of an asylum had only a salary of £800 and the next had £1,200, surely the man who had £1,200 was less entitled to a pension than the one who had £800 for doing the same work (hear, hear). The superintendent with £1,200 had a better chance of saving money. This seemed to show also that Mr. Toller's salary was a high one, and that was to him an additional reason why the pension should be very much lower than had been proposed. He entirely agreed with the remarks of Mr. Cadle, and certainly hoped that in future the county would be very cautious in expending the full amount possible (hear, hear).

Mr. Ward wanted to know what was meant by allowances. Dr. Ancrum had made a statement to the effect that Dr. Williams received £400 as salary and £400 in allowances.

Dr. Ancrum remarked that he said there were allowances—he did not say they amounted to £400. The allowances were as follow:—A house kept in constant repair inside and out; a garden with persons to attend to it; patients constantly attending about the premises, saving the superintendent a servant; coals, gas, water—which last was an item in the Gloucester asylum—washing, milk, vegetables, some food for a horse, scraps for poultry, and what were called "necessaries" besides, which consisted of the mops and pails

and brushes and various things used about the house. It appeared to him that the superintendent had all his expenses paid with the exception of his meat and bread, wine, beer, and groceries. Therefore, if they calculated what a man with a family of five children and several servants might consume, he thought they would not believe that the commutation of these items for the sum of £300, saparately from the house, was very large.

Mr. Ward asked whether he was to understand the printed report made at various times by the Visiting Justices was not a fair and just report? He had made copies from the different reports made by the Visiting Justices, and found that in 1857 the superintendent had £400 a year salary, with house, coals, candles, and washing. That was everything he had.

Dr. Ancrum said he was speaking of what had taken place latterly.

Mr. Ward said in 1862 the superintendent's salary was £600 a year, with house, coals, candles, washing, and vegetables, but distinctly, and in both cases, without board. That was paid to Dr. Williams. In 1864 the superintendent had £500 a year without board, but with house to live in, coals, candles, washing, and vegetables. They could not make £300 or £400 a year out of coals, candles, washing, and vegetables.

The County Chairman—There is an "etc." after the vegetables.

Mr. Ward said there was an "etc.;" he noticed that (laughter), and it seemed to cover a multitude of things.

Dr. Ancrum—It did.

The County Chairman said—I wish to take the question of the pension in anything I now say a little out of the course which it has taken to-day, and I wish rather to argue it upon general grounds, and especially as to why a pension of £350 would be wholly inadequate to accomplish the purposes for which pensions are granted. I imagine the pension is not only granted because Mr. Toller may require a fitting reward for his services to the county, but because it is right it should be granted in such a way as to enable the county to obtain and retain the services of an efficient gentleman at the head of the County Asylum. This is quite certain: the number of candidates for such appointments as these is extremely limited. High as the salary is we were giving, and large as is the proposed pension, if it is upheld, those terms have altogether failed to bring into the field any considerable number of qualified applicants for this particular post. I will undertake to say of the gentlemen offering there were not more than, I think, five who came up to the standard that we considered fit for a man to be put into the position of medical superintendent of the asylum. It is a most responsible post, in which a man is the arbiter of the destinies of a great number of individuals, where he has the control of such a large institution. It is a matter of extreme responsibility, and one feels the weight of the responsibility in attempting to select a proper person to place at the head of it. I

am very glad to hear from Mr. Onley that so far as he is able to judge we have made a good choice for a successor to Mr. Toller. But we should fail to secure a good man at the head of the institution, we should have failed to obtain the services of our present superintendent, if it was to go forth from the Court of Quarter Sessions, or from this meeting, that the question of how much pension should be granted at the end of his services was to be a pure matter of chance, and not to be regulated by precedent or the rules laid down by Act of Parliament. I think £350 would altogether fail to satisfy either the spirit of the statute under which we act, or even the terms of the Civil Service Superannuation Act. This Act fairly interpreted means this: In such a case as Mr. Toller's you have taken a professional man at an age greater than that at which men usually enter the Civil Service, and you place him at the head of an institution. It was impossible therefore for him to serve forty years so as to obtain two-thirds of his salary calculating by sixtieths for each year. And therefore he comes most distinctly under the previous Superannuation Act, by which a number of years' service not exceeding twenty may be added to the number of sixtieths which may be granted in cases where professional men enter such a service at a greater age than civil servants usually do. By common interpretation that twenty years is taken at seven years. Taking therefore Mr. Toller's service at nineteen years, and calculating nineteen sixtieths of the salary he had during the last three years, and adding seven sixtieths to that, you arrive at £520, according to the rules of the Civil Service. Of course that is not the Act of Parliament, however wise it may be, that we are bound to administer under, or to look at. We might, no doubt, use it as a guide in our discretion; but we were bound to look at the terms of the Superannuation Act applicable to the cases of lunatic asylums, and there we found without question a pension might be granted of two-thirds, and special recommendations that such an amount might be granted for fifteen years of service only, in consequence of the harassing nature of the duties of gentlemen in that position. How did we act? We did not go anything like to the extreme we might. We reduced that extreme by £250, and it is held now by the other side that we have granted an inadequate pension, and that it is such a pension that may deter proper officers from occupying the post in question. I do not argue that the holders of all posts should be treated in that way; but I do argue that for posts of so extremely difficult and delicate a nature as Mr. Toller filled, you must grant your pensions on rules bounded by a very narrow discretion indeed as to what you shall give. And I think the committee in fixing £550—I won't tie myself to £550, but approximating to that amount—I think we should not go very much below that point. Allusion has been made to a medical paper which has been sent to me, which shows the view held on the other side. The writer says: "Should it be proclaimed that no retiring pensions, or only very meagre and insuffi-

cient ones, are to be granted in the Gloucester County Asylum, then a very rapid deterioration may be predicted in the character of the officers of that establishment, unless the salaries of the staff be increased in such a way as to compensate for the loss of all prospect of superannuation allowances. But this would be an expensive process for the country, for it ought not to require demonstration that moderate salaries with the prospect of a pension are more economical than large salaries and no such prospect." That is a very fair statement of the case—

Mr. ONLEY—They are "birds of a feather" (laughter).

The COUNTY CHAIRMAN—Even if they are, it shows the opinion of that particular class from which alone we can draw superintendents of asylums. We cannot go out to the general public. These officials must be drawn from a special class, and unless you consult the feelings and even the prejudices of that class, you will not succeed in keeping at the head of that establishment efficient servants. Upon those grounds I think we should be seriously damaging the prospect of future efficiency in our officials if we fell in with the views advocated to-day, and reduced the pension to £350. I quite admit that if Mr. Toller had been an inefficient servant there would be no reason why we should give him such a pension, or any pension at all. But I think no one can doubt Mr. Toller has been an efficient servant, notwithstanding reports that may have been spread. Anybody who has had to do with lunatic asylums must know the immense mass of reports that are brought before one, I may say every day one goes there, which are wholly unreliable, and based upon nothing whatever, all of which yet require to be inquired into more or less. The particular case alluded to of Mrs. Driver is one of such cases. That case was brought before the Home Secretary and the Lunacy Commissioners, and in consequence a very special inquiry was made which was not limited to the patients in the institution but to patients who had recovered and were out of the institution, and who had been there at the time when this lady was in the asylum; and upon the evidence so taken, which was free from any taint of suspicion of undue influence, it was evident she was mistaken as to the treatment she had received. A copy of the report was sent to the Lunacy Commissioners, who were satisfied. The Committee of Visitors themselves are, by the course which these proceedings have taken, somewhat upon their trial (cries of "No, no"). I can only say we have done the best we could for the county, and we believe that in fixing this particular pension we were acting according to precedents obligatory upon us to follow, not only with reference to what Mr. Toller might reasonably expect, but with reference to the future efficiency of the Asylum, and retaining and securing thoroughly efficient officers at his head. And it is upon those grounds that I myself, acting as one of the Visitors, feel bound to say I could not possibly fall in with the suggestion that the pension should be reduced to £350, because, anxious as I am to

save the rates, I believe such an amount would not be adequate either to Mr. Toller's services or to attain the object of securing the future efficiency of the asylum (applause).

Mr. CADLE said he was sure the deputation would not like to part without thanking the magistrates for their kindness in asking them to meet and state their views. He must ask the magistrates to dispel from their minds one thing, viz., the impression that they were "on their trial" in the matter, for this reason: Although the magistrates were no doubt very large ratepayers in the county, they must bear in mind that they were not a representative body (hear, hear). And therefore that was the reason why he wished Mr. Dorington to dispel from his mind the idea to which he had referred. The deputation present were representatives of the different Boards of Guardians, and that was one great reason why he thought they should thank the magistrates for inviting them there that day. He would move a most cordial vote of thanks to the magistrates on the part of the deputation (applause).

The motion was carried by acclamation.

Dr. ANCRUM said—We will carefully weigh the arguments that have been placed before us, and we will consider the subject in all its aspects. We have now, I suppose, the opinions of the ratepayers as well as the opinions of the Visitors before us.

Mr. WARD—The opinion generally of the ratepayers is that there should be no pensions whatever.

The COUNTY CHAIRMAN—But we have to carry on the service.

The meeting then terminated, having lasted about two hours.

Guiteau.

We have received a number of letters (not for publication) from our Transatlantic brethren in consequence of our article on Guiteau in the July number of the Journal, either assenting to or dissenting from it, according to the sentiments of the writer. They show not only the deep and widespread feeling excited, but the hopeless difference of opinion which exists on the question of his criminal responsibility—and this, after the entire history of the man is before the public and the profession, including the post-mortem examination of the brain.

Our contemporary, "The American Journal of Neurology and Psychiatry," in a critique on our article has evidently acted upon the Baconian counsel, "He that questioneth much, shall learn much." It has subjected us to the American ordeal so much resented by Herbert Spencer, and has "interviewed" us in a very vigorous manner. We have, however, an advantage over the philosopher in that we can

say much or little or nothing at all in reply to our interviewer's seventeen questions. And in truth we don't think these interrogatories call for much reply, still less one of a formal and detailed character. The fact is we recognised the difficulty of the case, and the force of the arguments employed on one side as well as the other. We admit what the American Journal asks us to admit, that "there are two sides to the question." The difficulty is to strike the balance between them. It is not the first time, and it certainly will not be the last, that a case presents itself in which it is clear that a man is not, strictly speaking, of healthy mind, that he is unstable, eccentric, or impressed with exaggerated ideas of his own importance and of his mission in the world, but in which there is no sufficient justification for regarding him as insane in the technical and established use of the term, and irresponsible for his acts in the eye of the law. It is quite certain that if before a criminal undergoes punishment for his crime, it were necessary for two medical men to certify that he is of perfectly healthful mind—his judgment of matters relating to himself or his friends just, and his emotions and intellect well-balanced—many would escape the penalty which we should all admit to be their due. The question must be, in each case, whether, taking all the conflicting evidence into account, a man is morally irresponsible for his acts, by reason of disease.

As regards the justice of the verdict in Guiteau's case, that which especially strikes us is that, whether right or wrong, it was reached after a trial of unprecedented length, conducted to all appearance with the strongest desire to give the prisoner every opportunity of defending himself. We confess we are at a loss to understand how it happened that those who held Guiteau to be insane, failed to make themselves heard in the way and to the extent the defence must have desired. One of our correspondents, holding Guiteau to be insane, writes, "I was subpœnaed by the defence, but declined to give evidence." Why decline? It certainly seems to us that this physician cannot justly complain of the result of the trial. Our estimable querist says, "Can the 'Journal of Mental Science' express it as its opinion that the evidence in the Guiteau trial did not sustain the insanity plea, when that evidence was not at its disposal?" But how could it be at its disposal, if competent psychologists, like our correspondent, declined to give the evidence which the defence was anxious to obtain? Surely the blame—if

blame there be—rests not with spectators like ourselves, but with those who refused to contend in court for the opinion they so strongly entertained. Again, our attention is directed to "Published Articles and Letters" in defence of Guiteau's insanity, but these can scarcely be placed upon the same level of authority as evidence adduced in open court at the time of the trial.

We cannot admit that Dr. Channing's statements were "mutilated," or Dr. Folsom's opinions "misrepresented" by us.

We are asked whether we are aware that Dr. Godding, the first expert consulted, pronounced Guiteau insane, and was for this reason not placed on the stand by the prosecution. We can only say that if the practice of the American law courts precluded this physician giving evidence for the defence on a merely technical plea, and that if he was unable to rebut the action of the prosecution which made the defence believe that he was a witness in favour of the prosecution, the law in America must be in a position quite otherwise than we had supposed. But if it be so, the fault lies in the state of the law, and not in its particular application to the case of Guiteau. And yet we do not hear of any attempt being made to have the American law altered. We had imagined that, at least, the same facilities for fair defence existed on the other side of the water as on this. Certainly in England no prosecution could have prevented Dr. Godding giving the court the full benefit of his opinion founded on his examination of Guiteau.

We are equally at a loss to understand the force of the complaint that Dr. Spitzka was informed that only such witnesses would be called by the prosecution as would pronounce Guiteau insane. The obvious comment on such a complaint if made in this country would be that it is not usually the object of the prosecution to call evidence to prove the insanity of the prisoner in whose defence the plea of insanity is set up. The law may be bad—but that has nothing whatever to do with the charge of partiality brought against the authorities in the trial of Guiteau. To us, accustomed to the practice of the English law—and it is new to us that in this respect it differs from that in America—it sounds strange to ask, as our friendly interviewer proceeds to ask, "Does the 'Journal of Mental Science' not believe that in selecting witnesses favouring a general view, a premium is put on a valueless kind of

medical testimony?" The question is relevant as an argument for altering the law, but is, we submit, beside the mark in its application to the Guiteau case.

We are also asked whether we consider it dignified for experts to give unscientific testimony. The answer goes without saying, but again it is or ought to be open to the defence to make counter statements. The court and jury must decide as best they can, whose authority they will regard as most authoritative. It is no new position for the court to be placed in when scientific witnesses are called.

Again, who is to blame that Dr. MacFarland's evidence of the insanity of Guiteau's father was "fought off?" Clearly it is not the fault of the prosecution, but of John Guiteau, who "would have Charles hanged ten times over before any man should pronounce father insane." Nor can we see that the "Journal of Mental Science" is to blame for not commenting on a fact known, it seems, to Dr. MacFarland, but whose presence was "fought off by John Guiteau."

One more question, and only one, appears to call for remark. We are asked "whether we are acquainted with the views of one of our leading neurologists." Now it certainly does surprise us that the views of Dr. Hammond as expressed in a letter which is given by our contemporary should be adduced in support of the view for which it is contending. For what does the writer say, when he writes by request to President Arthur, to express his views on the mental condition of Guiteau? He frankly doubts whether his opinion will be of any service, and no wonder, for while entirely sure that he was insane, he is "equally certain that he is one of those reasoning maniacs who know the difference between the right and wrong, *who possess sufficient power of self-control, if they chose to exercise it*, and who are, therefore, in my opinion, *responsible* for any violation of law they may commit." It is hardly necessary to point out that this witness, brought forward by "The American Journal of Neurology and Psychiatry," to rebut the opinion expressed in this Journal that Guiteau was not proved to be insane—confining our observation to the question of Guiteau's responsibility—would have sealed his fate in any court of law, whether in this country or in America. What, in short, is the practical difference between the conclusion that Guiteau was responsible and sane as maintained by Dr. Gray, and that he was responsible and insane as held by Dr. Hammond? If a judicial murder has been com-

mitted, in the execution of Guiteau, we have nothing presented to us in the hot-and-cold-blowing letter of Dr. Hammond, brought under our notice by our contemporary, which would have saved him from his doom. Dr. Folsom, again, writing on the 18th of May, while regretting the approaching fate of Guiteau, failed to find any sufficient reason for asking the executive to interfere to save him from the gallows. And here we would observe that our own position in venturing to offer an opinion on the question of Guiteau's responsibility, was that we failed to find any sufficient reason for concluding that the verdict arrived at after so much deliberation was wrong. To have justified our doing so, overwhelming evidence to the contrary should have been in our possession.

In conclusion, we ought to thank our worthy contemporary for refraining to ask us "several hundred questions of the same kind" as those propounded, which might have been asked, but which out of consideration for the brevity of human life are considerately withheld.*

A section of a portion of the frontal cortex has been sent to us. The time has not arrived when we can decide on the sanity or insanity of a man by looking at a section of his brain under a microscope. The above section has, however, been carefully examined by Dr. Savage, who has made the following note on it:—"I should say there is nothing that I have seen which is not compatible with mental health. It is true there are changes about the vessels and their walls, but these and similar changes are commonly found in the bodies of persons dying or being killed when past middle age. There are no marked general changes in the nerve cells, and I can only repeat that the specimen examined would not have any weight with me, in causing me to reconsider my judgment on the sanity of the assassin."

* The *post-mortem* examination will be found under "Notes and News." One would have thought that if ever an autopsy should have been conducted in a way to leave no reasonable ground for complaint, it would have been that of this unfortunate man. Yet "lack of facilities" was allowed to stand in the way of a complete examination, and the vessels in the thorax were divided before the head was examined.

PART II.—REVIEWS.

Thirty-sixth Report of the Commissioners in Lunacy. 1882.

There is no falling-off in the interest which attaches to this report, in which continued assurance is given that the public receive from this department of the State honest, earnest, and enlightened service.

We learn from it that the registered lunacy of England and Wales has increased within the last twelve months by 1,729 patients, and that the total number on the 1st January last was 74,842, in the proportions of 33,747 males to 41,095 females, and of 7,753 private patients to 67,089 paupers. Of these, the private patients were distributed as follows: In County and Borough Asylums, 584; in hospitals, 2,770; in licensed houses, 3,415; in naval and military hospitals and the Royal India Asylum, 305; at Broadmoor, 228; and in private dwellings, 451.

The paupers who were cared for in County and Borough Asylums were 42,107; in hospitals, 151; in licensed houses, 1,468; at Broadmoor, 274; in workhouses, 16,976; and as out-door patients, 6,113.

The increase referred to has been confined almost exclusively to pauper patients, who numbered 1,717 more than on January 1, 1881; while the private patients had only increased by 12. As we have previously pointed out, this discrepancy undoubtedly arises, in some measure, from the inadequate provision which exists in other classes of institutions for the care of private patients whose means are insufficient for the payment of more than small weekly sums for their maintenance, and who are consequently obliged to be sent to the County and Borough Asylums under arrangements with Boards of Guardians.

The Commissioners draw attention to the increased number of pauper patients who are being maintained in licensed houses, as showing that the provision by county and borough authorities of public asylum accommodation fails to keep pace with the requirements, a state of things upon which they remark that they are constantly urging the Justices to take a comprehensive view of the prospective re-

quirements of their districts, but, in many instances, they say that their representations have only resulted in action after much delay, whilst in the meantime Guardians have been obliged to maintain many of their insane poor in licensed houses at nearly double the cost which would have been incurred in County Asylums.

The very elaborate series of tables, which form a large and most valuable portion of the report under review, show that, whereas in 1861, 19·71 persons in every 100,000 were registered as insane, the proportion had reached 28·06 last year, and this year 28·34, which would represent one in every 352 of the population. They also show that while the percentage of paupers to population has gone on regularly decreasing for several, and, with some fluctuations, for many years past, that of pauper lunatics to paupers still continues to show the steady increase which, also with some fluctuations, has continued since 1859. This is explained by the Commissioners to be due to an annual accumulation of patients in asylums, from the greater care taken of them, and a reduced death rate among them, rather than to an annual production of fresh insanity disproportionate to the yearly increase of the population; and they support this opinion by reference to a table, which gives the ratio of admission into asylums to the population, and shows that whereas this was 5·17 to every 10,000 in 1875, it had only risen to 5·18 in the year to which this report relates.

This is eminently satisfactory, as proving that, heavy as the burden of insanity has become to the sane part of the community, there are influences at work which, in spite of drawbacks such as some continued depression in trade, and disturbance in the labour market, have already begun to stem the tide of increasing lunacy, and hold out a more encouraging prospect for the future.

The alleged causes of insanity in those under treatment during the year present a remarkable uniformity with those registered in the previous year, and we again give a table which shows the percentages of these in three classes of patients. (For Table see next page).

Of the total number of patients admitted into all classes of asylums during 1881, 9·2 per cent. were epileptic, 7·4 general paralytics, and 27·4 credited with a suicidal propensity. The number of suicides during the year was 23, of which 17 were in County and Borough Asylums, 1 in hospitals, 4 in licensed houses, and 1 in private care.

TABLE I.

Causes of Insanity.	Proportion per cent. to the Total Number of Patients in each Class Admitted during 1881.								
	Private.			Pauper.			General Paralytics.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Moral—									
Domestic trouble, including loss of relatives and friends	4·4	12·4	8·2	4·3	9·7	7·1	4·2	9·4	5·3
Adverse circumstances (including business anxieties and pecuniary difficulties)	9·1	3·6	6·5	8·7	3·2	5·9	11·8	3·3	10·0
Mental anxiety and "worry" (not included under the above two heads) and overwork	14·5	9·5	12·1	4·1	4·8	4·5	7·7	3·3	6·7
Religious excitement	1·5	5·1	3·2	2·8	2·5	2·6	·6	·4	·5
Love affairs (including seduction)	1·0	4·2	2·5	·7	2·2	1·4	·5	1·4	·7
Fright and nervous shock	1·1	2·5	1·8	1·0	2·0	1·5	·3	1·4	·6
Physical—									
Intemperance, in drink	19·1	8·3	14·0	19·3	6·3	12·7	24·4	16·0	22·7
,, sexual	1·4	·3	·9	·6	·4	·5	2·9	1·8	2·6
Venereal disease	2·2	·2	1·2	·5	·2	·3	1·6	·9	1·4
Self-abuse, sexual	5·2	·9	3·1	1·2	·1	·7	·5	—	·4
Over-exertion	1·3	·8	1·0	·5	·5	·5	1·2	·4	1·0
Sunstroke	3·1	·1	1·7	2·5	·2	1·3	3·6	—	2·8
Accident or injury	3·4	1·2	2·3	5·2	1·1	3·1	5·8	2·8	5·1
Pregnancy	—	·5	·2	—	1·0	·5	—	1·4	·3
Parturition and the puerperal state	—	6·9	3·2	—	6·7	3·4	—	8·4	1·7
Lactation	—	·4	·2	—	2·3	1·1	—	2·3	·4
Uterine and ovarian disorders	—	4·0	1·9	—	2·5	1·2	—	1·4	·2
Puberty	·2	·5	·3	·2	·4	·3	·1	—	·1
Change of life	—	5·6	2·6	—	2·5	1·2	—	3·7	·8
Fevers	3·0	1·3	2·2	·9	·7	·8	·5	·4	·2
Starvation and privation	·2	—	·1	2·0	2·5	2·2	2·2	3·7	2·5
Old age	1·8	2·3	2·0	3·9	4·5	4·2	·5	·9	·6
Other bodily disorders	7·4	8·4	7·8	11·1	9·8	10·4	10·6	10·8	10·6
Previous attacks	12·9	16.4	14·5	14·8	19·2	17·1	4·9	8·0	5·5
Hereditary influence ascertained	14·9	25·1	19·7	18·8	20·5	19·7	13·3	18·3	14·4
Congenital defect ascertained	7·5	3·3	5·5	4·9	3·2	4·0	·1	·4	·2
Other ascertained causes	10·4	2·0	6·4	1·5	·8	1·1	·6	·9	·7
Unknown	12·4	12·8	12·6	23·6	23·7	23·7	31·5	31·1	31·4

The total admissions of the year 1881 were 14,669, of which 1,872 were readmissions and 976 transfers. Deducting the latter, the fresh admissions of the year were 13,693, or 2,263 (1,178 males and 1,085 females) of the private class, and 11,430 (5,593 males and 5,837 females) who were paupers.

The patients discharged (including those transferred) were 8,734, of whom 5,366 were returned as recovered. The deaths were 4,715.

Excluding the idiot asylums and the transfers, the recoveries, calculated upon the admissions, were 34·85 for the males, 44·46 for the females, and 39·72 for both sexes, which the Commissioners consider to be very satisfactory, as being not below the average of the last 10 years. With the same exclusions the death rate was 11·61 for males, 7·47 for females, and 9·37 for both sexes, a rate which is lower than the average of the last 10 years.

The percentages of recoveries and deaths in the several classes of institutions are shown in the following table:—

TABLE II.

	Proportion per cent. of Recoveries to Admissions.			Proportion per cent. of Deaths to the Average Numbers Resident.		
County and Borough Asylums ...	32·66	40·84	37·58	12·1	7·5	9·6
Registered Hospitals	28·7	47·09	38·22	6·2	4·8	5·5
Metropolitan Licensed Houses ...	26·36	38·8	32·95	11·18	8·43	9·78
Provincial Licensed Houses ...	22·25	32·21	27·87	9·64	7·17	8·31
Private Single Patients	11·11	9·37	10·71	4·57	7·34	6·27

The number of post-mortem examinations made in asylums during the year was 2,789 out of a total of 4,715 deaths, or 59 per cent., as compared with only 37 per cent. in 1880, a difference which the Commissioners record with satisfaction, as indicating an increased safeguard for the proper and kind treatment of patients.

They enumerate with approbation the various means which are adopted in the several institutions which they visit for the amusement of the patients, and for avoiding the necessity for restraint, and they draw attention to the importance of increased exertion being made to give employ-

ment to patients, the amount of which, they say, varies unreasonably in different asylums of the same class.

With reference to the important question of attendants, while they have no complaint to make of insufficiency in their number in County and Borough Asylums, they consider that there is room, speaking generally, for much improvement in their training and efficiency, a fact which no one would probably be more ready to admit than the superintendents of asylums, who have to endeavour to secure, from such materials as they can obtain, the discharge of very delicate and difficult duties.

The whole question of the qualifications and remuneration of attendants, who are required to undertake skilled work of a high class, is attended with considerable difficulty, and it is greatly to be desired that establishments could be devised wherein the requisite training could be given to suitable persons willing to become attendants.

But the class of persons who are now clamouring so loudly for County Boards would, we fear, be scarcely willing to pay the higher price which this more finished article would demand and deserve.

The average weekly cost in County and Borough Asylums appears to have decreased 2½d. since 1880. It has been in County Asylums 9s. 4⅛d.; in Borough Asylums, 10s. 8⅜d.; and in both taken together 9s. 6¾d., the following being the items of expenditure:—

TABLE III.

	County Asylums.	Borough Asylums.
	s. d.	s. d.
Provisions (including malt liquor in ordinary diet) ...	4 4⅜	4 6¾
Clothing	8¾	9⅛
Salaries and wages	2 2⅛	2 5⅜
Necessaries, *e.g.*, fuel, light, washing, &c.	11⅛	1 2⅞
Surgery and dispensary	⅞	¾
Wine, spirits, porter	⅞	¾
Charged to Maintenance Account—		
Furniture and bedding	5¼	6½
Garden and Farm	6	6⅝
Miscellaneous	3¾	8⅝
	9 7⅛	10 11⅛
Less monies received for produce sold	3	2¾
Total average weekly cost per head	9 4⅛	10 8⅜

The Report before us deals at unusual length with the present condition of the registered hospitals and licensed houses.

With reference to the latter, a more or less detailed account of each is given, and there are some, it must be admitted, which are not spoken of favourably, and do not seem to be fulfilling a very useful part in the care of the insane, but these are the exceptions. Many of them receive patients at low rates of board, and, of course, afford them humble accommodation, but it seems difficult, if not impossible, to displace them with advantage to insane persons of the lower middle class, for whom they provide accommodation which it is difficult in many instances to obtain elsewhere.

As respects the condition of the "Hospitals," the reports of the Commissioners are almost uniformly favourable, but they repeat their complaint of last year that more provision is not made in them generally for the care and treatment of persons of the middle class who are unable to make more than very moderate payments.

Their profits, they say, appear too often to be expended not in the extension of provision for cases of this kind, but in accommodation calculated to attract the wealthier class, and, in some instances, by apparent competition with licensed houses of high reputation.

In these complaints of the Commissioners there is, no doubt, considerable force, and it is greatly to be desired that in the case of all hospitals a continued effort should be made to devote a considerable and safe proportion of their income to the purpose to which attention is directed in this report.

No class of the community is in more urgent need, and to none could charitable aid be more suitably extended. But in order that this charity should deserve the name, the rule which prevails in many hospitals, that the mental states and not the pecuniary payments of the patients shall regulate their classification, should be preserved, for it would obviously be no charity to charge the rate of a County Asylum and give the patients only such accommodation and associations as are suitable for persons of the lower classes.

Unfortunately, as the Commissioners remark, "the unaccountable lack of public sympathy for the mentally afflicted of the middle class is a great difficulty with hospitals for the insane."

They have, as a rule, only small endowments, and any

attempt to limit them in their reception of affluent patients must ultimately result in a loss of connection and income, and in an inability to give even their present amount of aid towards charitable purposes—the very object of their existence—besides lowering the character of their accommodation, in which at present all participate.

From the figures which are given by the Commissioners, it would appear that, omitting St. Luke's and Bethlem, which possess large endowments, the total income of the 11 lunatic hospitals amounted in 1881 to £157,448, of which only £8,450 was derived from donations, subscriptions, legacies, dividends, or any other form of endowment, and of this £3,664 was possessed by two hospitals, leaving to the nine others the small sum of £4,786, or an average of only £532 each.

These facts tell their own story. If wealthy philanthropists will not endow these institutions, a considerable number of opulent patients must be admitted to make it possible to assist persons of the middle class and those who have seen better days. Not, however, that we for a moment deny that the governors of the lunatic hospitals throughout the country require to keep steadfastly in view the claims of a very needy class of insane patients, and the importance of devoting as much space as possible to their accommodation.

In this connection we would point out the extraordinary fact that one registered hospital which has obtained just celebrity, and which provides gratuitously for the very class which is alleged urgently to require accommodation, has for so long a period had a considerable number of empty beds, that it has recently been decided by the governors to admit patients at £2 2s. a week to increase the income, which has been seriously lessened by agricultural depression. Strange to say, there does not appear to be a sufficient number of insane persons falling within the rules of this excellent charity to fill the beds *without charge*, but they are now steadily filling when it is known that patients can be admitted on the privilege being granted them of making a payment!

The report contains the usual entries of visits to the County and Borough Asylums, from which it would appear that their general condition and management are as creditable to those who are responsible for their direction as they are satisfactory from a national point of view.

With reference to the 451 registered single patients, the Commissioners express their general approval of their care and treatment, which they describe as having materially improved of late years.

They report, however, that while the insane in workhouses are generally well cared for, they have had occasion in some cases to complain of grave defects, but so far from there now being a general desire to detain in workhouses patients who ought to be sent to asylums, the tendency is rather to take advantage of the four shillings allowance, and crowd the asylums unnecessarily with those who might, with a little more liberal provision in the way of food and supervision, be adequately dealt with in workhouses.

The Commissioners conclude an interesting and suggestive report with the following tribute to the memory of a deceased colleague, which those of our readers who, during his long career as a Commissioner, were brought into official relation with him, will cordially endorse:—"The Secretary having reported to the Board the death of their colleague, Mr. W. G. Campbell, it was resolved to express their deep sense of the loss sustained by themselves and the public. During six-and-thirty years Mr. Campbell's career on the Commission exhibited remarkable diligence, judgment, and ability. His ripe judgment and long experience were of the greatest value both to themselves and to the public."*

Twenty-Fourth Annual Report of the General Board of Commissioners in Lunacy for Scotland. 1882.

We agree with the Commissioners that it is more useful to give once in five years a detailed review of the progress which the statistics of asylums reveal rather than to do so in each Annual Report. Such a review was given two years ago; in the present report, therefore, the general progress of the Board is merely indicated. From this it appears that from 1858, when it was established, the total number of

* The useful List of Medical Superintendents, &c., in appendix (P), requires to be really, as well as nominally, "corrected to date of publication, 1882." We have been unable to discover from it who is the present superintendent of the Royal Naval Hospital, Yarmouth, the gentleman whose name is given having left long ago.

lunatics in Scotland known to the Board and on their Registers has increased from 5,823 to 10,355. The increase and decrease are thus represented:—

	Increase since 1858.	Decrease since 1858.
1. Private Patients—		
(*a*) Placed in Establishments.....	392	—
(*b*) Placed in Private Dwellings	96	—
2. Pauper Patients—		
(*a*) Placed in Establishments.....	4054	—
(*b*) Placed in Private Dwellings	—	216
	4542	216

The figures appended show the difference between the modes of distribution at the beginning and end of the period:—

	Jan. 1. 1858.	Jan. 1. 1882.	Increase since 1858.	Decrease since 1858.
In Royal and District Asylums	2380	6187	3807	—
In Private Asylums ...	745	156	—	589
In Parochial Asylums	—	—	—	—
In Parochial Asylums and Lunatic Wards of Poorhouse.....	839	2068	1229	—
In Private Dwellings	1804	1684	—	120
In the Lunatic Department of the General Prison	26	62	36	—
In Training Schools ...	29	198	169	—
Total increase or decrease			5241	709

In the increase (5,241) of patients in public institutions we may account for 709 by the decrease in private asylums. Not reckoning these, the net increase of 4,532 represents 78 per cent. During the period the population has increased only 24 per cent. This apparently alarming increase is,

however, to be explained by "the increasing readiness to place persons as lunatics in establishments." Allowing for population, the number of private patients in asylums has since 1858 increased 12 per cent., and that of pauper patients in asylums 92 per cent. It is satisfactory to learn that private asylums of the class which received patients at the lowest rates have entirely disappeared, most of these patients being provided for as paupers in public institutions, doubtless immensely to their advantage.

In 1858 pauper lunatics formed only 6 per cent. of the total paupers. In 1882 they form 14 per cent.—an increase explained by the fact that "a large class of persons who were regarded as ordinary paupers in 1858 are now dealt with as pauper lunatics." This is probably only one reason. However, it is no doubt true that we must not infer from these statistics "any greater prevalence of insanity among the destitute poor."

The number of lunatics in Scotland on the 1st of January, 1882, was as follows. (See Table on next page.)

Registered lunatics increased during 1881 by 333, there being an increase of 337 pauper and a decrease of four private insane. There were 38 voluntary patients admitted into Scotch asylums during the year, and their whole number on January 1, 1882, was 31. The average number admitted for the quinquennium 1875-79 was 49. We are not surprised to find the Commissioners stating their belief that the admission of voluntary patients is a useful provision of the law, and we wish the practice was introduced into England. There is another regulation also, which might with advantage be adopted in England, namely, the supervision by the Commissioners of private patients who have been insane for more than a year, and are even *not* kept for profit in private houses, if they are subject to compulsory confinement to the house, to restraint or coercion of any kind, or to harsh and cruel treatment. Not less useful is the provision that a patient in a single house need not be placed under the supervision of the Commissioners if a medical man certifies that such patient is afflicted with a malady which is not confirmed, and that it is expedient to place him for a temporary residence, not exceeding six months, in such house. This is common sense.

We think the observations of Deputy-Commissioner Fraser on the tendency to resort unnecessarily to asylum treatment, and to detain patients longer than is necessary,

NUMBER OF LUNATICS ON 1st JANUARY, 1882.

Mode of Distribution.	Male.	Female	Total.	Private.			Pauper.			State Patients in General Prison, Perth.			Inmates of Training Schools for Imbeciles.					
													Supported by Friends.			Supported by Parochial Rates.		
				M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
In Royal and District Asylums	3040	3147	6187	655	593	1248	2385	2554	4939	...	...	...	...	...	...	...	...	...
„ Private Asylums	46	110	156	46	110	156	...	...	...	...	...	...	...	...	...	...	...	...
„ Parochial Asylums ...	636	714	1350	...	...	...	636	714	1350	...	...	...	...	...	...	...	...	...
„ Lunatic Wards of Poorhouses	322	396	718	...	...	...	322	396	718	...	...	...	...	...	...	...	...	...
„ Private Dwellings.....	656	1028	1684	45	71	116	611	957	1568	...	...	...	...	...	...	...	...	...
	4700	5395	10095	746	774	1520	3954	4621	8575	...	...	...	...	...	...	...	...	...
„ Lunatic Department of General Prison	42	20	62	...	...	...	...	...	...	42	20	62	...	...	...	...	...	...
Training Schools	122	76	198	70	48	118	52	28	80	...	...	...	70	48	118	52	28	80
	4864	5491	10355	816	822	1638	4006	4649	8655	42	20	62	70	48	118	52	28	80

are very important in their bearing on the melancholy and expensive accumulation of patients in pauper asylums in England. He says:—

"The reports of many of our medical superintendents of asylums . . . contain complaints of having to admit patients who in their opinion could have been sufficiently cared for in a private dwelling, or at home. Many rural inspectors of poor seem to regard the asylums, not only as a place for the treatment of the insane, but also as a hospital for the treatment of any form of nervous disease with which mental enfeeblement may be associated, or as a home for aged persons whose faculties are failing; and relations now prefer the asylum for their paralytic friends to the poor-house, as the former implies a more dignified form of pauperism than the latter. The question suggests itself to me: Has not the misuse of asylums now set in? And I feel forced to reply that I perceive what seems to me unmistakable evidence of a too ready inclination to resort to them as the only provision for all who suffer under any form of mental unsoundness."

On boarding out insane paupers as a remedy for overcrowding, Dr. Fraser says:—

"In my report of last year I discussed the various agencies and influences which affect and promote the boarding-out of lunatics. Further experience has proved to me, however, that no mere discussion of the subject can enable a person to appreciate the capabilities of this scheme of providing for the chronic insane, its present extent, and the good results which have been obtained from it. I am also convinced that a practical insight into its real nature is necessary to all concerned in providing for the insane. As it is out of the question for any one who has never inspected or studied asylums to speak intelligently of the care and treatment of the insane in asylums, and of the capabilities of such institutions to fulfil their humane purpose, in like manner it cannot be expected that the practicability and the advantages of domestic care can ever be properly understood by any one who has not carefully observed what is going on in those localities in which the system is in active working order.

"I would, therefore, recommend all interested in the question of how the ever-increasing number of chronic lunatics is to be provided for, and especially I would recommend medical officers of those asylums in which overcrowding is beginning to be felt, to make themselves, as far as they

have opportunity, practically acquainted with the condition of the boarded-out insane.

"Let me, however, sketch briefly what would be seen by a visit, say to Gartmore, where 30 patients are provided for. The patients in this village would be found enjoying the amenities of private homes, and the majority the freedom of rural life,—their physical condition good,—their complexions indicative of life in the fresh air and of a satisfactory dietary, —their clothing, cleanliness, and tidiness as satisfactory as those of their neighbours and as the nature of their work will permit,—the homes in which they live clean and orderly, having been well selected,—their guardians generally good Scotch housewives,—the expression of their faces happy and contented, except where their insanity determines it otherwise,—their interest and participation in family matters evident,—and the individuality of each patient made prominent by being engaged each in a special sphere of duty. A melancholic will be found acting as nurse, a maniac with fixed delusions will be seen in full charge of the byre and its contents, another maniac will be found earning 6d. or 1s. a day on a farm, and only those will be found idle who are really incapable mentally or physically of engaging in work. The cry for home is very rarely heard among the lunatics in private dwellings, and as regards the village of Gartmore none of the villagers or residents in the neighbourhood have complained of the presence of these lunatics in their midst."

It is of interest to know the class of cases from a mental point of view which are cared for as pauper lunatics in private dwellings. Dr. Lawson gives the following percentages:—

Imbeciles	49·8	per cent.
Idiots	15·7	„
Dements	12·3	„
Melancholiacs	2·4	„
Maniacs	19·8	„

Dr. Lawson observes that "the members of the first three of these classes constitute virtually one large group, characterized by one feature which is of great importance when the method of disposing of pauper lunatics is under consideration. That great feature is freedom from dangerous propensities. This large class then embraces 77·8 p.c. of all

the pauper lunatics I have visited during the year 1881. I am quite prepared to admit that there is room for honest difference of opinion, whether many or all of these 595 pauper lunatics might not enjoy many comforts in a well-managed and medically superintended institution which they do not enjoy in their present dwellings. Most of them might be fed with greater precision, and perhaps more nutritiously; their surroundings would be more luxurious, and their habits of living more regular. They might be placed in the presence of many amusements designed to relieve the monotony which had been superadded to their already too monotonous lives. They might even be trained to employ themselves to a greater extent than if they had remained in private dwellings. But there can be no reasonable doubt that they would also sacrifice much by the change. What leads a pauper to prefer a miserable pittance in a private dwelling to the comparative luxury even of a poorhouse? It is the sense of liberty; the idea of having a home, the desire for voluntary isolation, or for voluntary sociability. Imbecility does not repress these features of the mental life; dementia does not destroy them. Those who advocate asylums as the only places where persons of unsound mind can, with a view to their own welfare, be properly dealt with, argue the question from a speculative point of view. If they were to begin the consideration of the question by submitting themselves to a month's trial of the daily life of the most liberally managed institution for the insane; submitting themselves in every particular to the regularities and discipline and monotony of asylum life, there would be few who would advocate the placing of insane persons in asylums whose withdrawal from social and domestic life was not absolutely necessitated by the probabilities of danger or indecency. And however much the removal to asylums of these 595 imbeciles, idiots, and dements might be advocated on speculative grounds, I am convinced that in no case could such a removal be pleaded for on the ground of necessity; and such necessity would be the only ground upon which their removal ought to be sanctioned.

"It comes naturally however to any one to ask, if these 595 pauper lunatics had not been officially recognised and provided for in private dwellings, would it have been necessary for them to be intimated as pauper lunatics requiring treatment and detention in asylums or poorhouse wards; or would they have been dealt with simply as paupers, with-

out special provision being made for them on account of their mental peculiarities ? It is impossible to give a direct answer to this question, because one cannot speculate upon the conduct under problematical circumstances of 253 parochial boards in 22 counties, administering the poor law under very diverse conditions and acting on different views of what constitutes sanity, or what will satisfy the dictates of humanity. Of two things, however, I am certain. The first is, that humanity required that these pauper lunatics should have an exceptional form of parochial and central supervision on account of their unsoundness of mind; and the second is, that patients such as those whom I have to inspect as imbeciles, idiots, and dements in private dwellings constitute no small share of the population of every pauper asylum I have ever visited. It would be of great public assistance in the determination of the possibilities of dealing in private dwellings with large numbers of those now resident in asylums, if asylum superintendents were to publish yearly in their reports a table such as that which I have preceded these remarks, showing the nature of the mental malady under which their patients labour. Most medical superintendents tabulate the mental disorders of patients on admission, but such a table gives no indication of the relative number resident on a fixed date of persons labouring under the different forms of mental imperfection or disease.

"Though I have spoken of imbecile, idiotic, and demented patients as being, as a class, free from dangerous propensities, instances occur amongst all of them which must be treated exceptionally. Such exceptions, however, would not materially affect the statement that as a class they are harmless. On the other hand, with regard to patients suffering from melancholia and mania, there might be more reasonable doubt as to whether they could be suitably dealt with in private dwellings. We have now, however, the experience of many years to draw upon, and we are in a position to speak with some authority on the subject. It is in some respects to be regretted that the Deputy-Commissioners should not have continued for a sufficient term of years to visit precisely the same district to enable them to make comparisons on an unchanging set of conditions. For reasons of another kind, the groups of counties visited by them have been frequently modified. But by placing some statistics, compiled by Dr. Mitchell in 1865, alongside of some figures recorded by Dr. Paterson in 1867, I am enabled to

show that some progress has been made in the direction of dealing with mania and melancholia in private dwellings.

	Dr. Mitchell's estimate in 1865.	Dr. Paterson's estimate in 1867.	Dr. Lawson's estimate in 1881.
Imbeciles, Idiots, Dements,	87·7	86·5	77·8
Melancholiacs, Maniacs,	12·3	13·5	22·2

"I think this table shows clearly that the experiment of dealing with persons in a more or less active condition of insanity has been attempted in private dwellings, and that it has so far succeeded as to lead to its being increasingly resorted to. It is true that neither the statistics of 1865 nor those of 1867 apply to precisely the same counties as mine, but the average given by my two predecessors in office can be quite fairly placed in contrast with those given by me. Be this as it may, the fact is unquestionable that 22·2 per cent. of the patients whom I visited in 1881 were labouring under melancholia or mania. In only one case was I called upon to order removal to an asylum, and the removal was effected, though the step was not very warmly approved of by the parochial board."

These observations deserve great consideration. The main point on which we have any misgivings as to the success of this course, is the influence *on the families themselves* in which patients are placed. We think that this serious question hardly receives the consideration it merits. In some instances it is doubtless of mutual advantage, but must it not be admitted that in the majority of cases it is of more than dubious advantage to the family, whatever it may be to the patient and to the ratepayers?

There are several other points of great interest and importance in this report, but we must content ourselves with a brief review of this valuable blue book. The picture presented by the Scotch asylums is a favourable one, but judging from impressions produced by recent personal visits to the principal insane institutions in Scotland, the writer ventures to say that it is not by any means too favourable.

Thirty-first Report of Inspectors of Irish Asylums. 1882.

The Report of the Inspectors of Irish Lunatic Asylums, though containing much that is interesting and new with regard to the treatment of the insane in that country, as yet shows no improvement in the statistical tables, so far as they relate to subjects of medico-psychological interest, the headings being vague, and in many instances ranging over so wide an area as to make their compilation a matter of great difficulty, and to afford so many sources of error as to render the information obtained extremely doubtful. For instance, Table XVI., showing the causes of insanity, instead of confining the return to the admissions for the year, embraces all patients in asylums on December 31st—a return obviously liable to many sources of fallacy. In an institution of long standing the records of causation as regards the old patients are few. Table VII., showing the form of mental disease, likewise gives the return of all patients in the asylum, instead of for the admissions, recoveries, and deaths. The headings of Tables X. and XI. are of such very vague and ambiguous character as to be practically useless for any statistical purpose. Table X. classifies all lunatics in public asylums as follows:—"Convalescent"—"Quiet and orderly, but insane"—"Moderately tranquil"—"Noisy and refractory"—"Imbecile and epileptic"—"Suicidal." Who, even of the wisest of men, could distinguish between a lunatic said to be "quiet and orderly, but insane," and one classified as "moderately tranquil?" How many lunatics are to-day "noisy and refractory," and to-morrow "moderately tranquil?" In Table XI. the word "Idiot" is used as a heading, which seems to have caused much difference of opinion as to the proper definition of the word.

It cannot be too earnestly hoped that the Inspectors after this year will see their way to the adoption of the Statistical Tables introduced at the last Annual meeting of the Association. The use of Table X., giving the causes of insanity, would alone do much to bring about the adoption of a uniform series of statistics for the three divisions of the United Kingdom.

The Inspectors state that at the close of the year 1881 there were in district asylums 8,978 patients, being an increase of 311 as compared with the number at the same date in the preceding twelve months. Of the admissions, 2,044 were re-

turned as cases of first attack, and 458 as relapses. The generally received method of estimating the percentage of recoveries on the admissions is not considered so practical a deduction as may be obtained from a calculation of recoveries on the daily average under treatment. Unfortunately the Inspectors do not give their reason for their objection to the generally received way of making out these statistics.

On the subject of relapses a conclusion is come to, which is best given in the Inspectors' own words, or it might be suspected we had done injustice to the original.

"The amount of relapses, constituting nearly a fifth of" "admissions, is strongly indicative of the fact that while" "medical science is able to contend with physical affections" "to a great extent, and steadily progresses, the mind is be-" "yond its control, as a rule, save when bodily disease may" "have superinduced in it an unhealthy action."

Is it meant by this that the mind is an entity of itself, beyond the control of the physician, and that all mental disease should be left as of old to superhuman agency, except when bodily disease makes itself apparent at the same time?

The number of cases of recovery in 1881 amounted to 1,019; 306 were discharged improved, and 69 incurable; in all 1,394. The percentage of recoveries amounted to 40 per cent. on the admissions, but, according to the plan preferred by the Inspectors, on the daily average number of patients, viz., 8,794, not quite 11½ per cent.

The total deaths amounted to 790, of these 783 were natural, 2 accidental, and 5 suicidal. As regards the five deaths from suicide, inquests were duly held on them, and in each case with an exculpatory verdict. The mortality for the year was 7 per cent., being even lower than in the preceding year. In English public establishments the death rate was 9·37 per cent. The low mortality in Ireland is to be explained by the comparative rarity of general paralysis in that country, and the small number of epileptics in public asylums.

The Inspectors, in referring to the everyday complaint of the small number of curable cases in public asylums compared with the incurable, take the opportunity of defending themselves from a charge of extravagance in the construction and extension of hospitals for the insane, "but there can be little room for extravagance when the object attained justifies the mode of securing it." It certainly appears difficult to understand how such a charge could be made considering

the plainness of architecture in Irish asylums, the homeliness of the furniture, and the low cost at which the inmates are supported.

"We are by no means advocates of the principle that because lunatics are maintained in asylums partially by a rate in aid, in consequence of the large expense which without it would be entailed upon the ratepayers of the country, that the demented and harmless, who could be satisfactorily treated with ordinary care and liberality in less ample buildings, should have a like claim on the Treasury. The real difficulty proceeds from the fact that neither Ireland nor England is placed in the same favourable position in regard to its insane poor as Scotland."

It must be remembered that the rate in aid was given for the purpose of improving the treatment of the insane, not alone to lessen the cost of the ratepayer, and it is doubtful how far the condition of the pauper lunatics in Ireland would be improved if the incentive to send them to asylums instead of workhouses was removed. During the past year the capitation cost was £22 12s. 3d. on the daily average under treatment. If from this the Government Grant of £10 8s. be deducted, the difference would scarcely exceed the cost of a poor-house inmate if every separate item of union maintenance was considered.

The receipts for the year 1880 for the support of public asylums amounted to £225,157 8s. 8d., and the expenditure to £200,626 16s. 9d. In auditing the accounts the only error reported was the over-payment of £2 13s. The Inspectors point out how particular they must be in fiscal references, as their office is, to a considerable extent, responsible for the regularity in taking of contracts and subsequent payments. The responsibility of the outlay of the sums paid for the support of the insane in public asylums seems to devolve on the Inspectors as an exceptional duty; in England the outlay of the taxation for the support of pauper lunatics devolving entirely on the Committee of Visitors.

A history is given of the total cost up to the present of sums expended on the building of public asylums, and advanced in the first instance by the Treasury. The sums granted from the first amount to £1,276,000. This sum was given on most favourable terms—no interest having been charged prior to 1877, whereby the ratepayers saved a sum of £320,000. In 1825 the Richmond, valued at £64,000, was presented by the Government to the metropolis of

Dublin, and £29,500 remitted in 1859 on the debt due to the Treasury.

At the end of the last year the balance due by the country, and in process of liquidation, amounts to £270,500.

With regard to poor-houses, the Inspectors believe that the two departments of Poor Law and Lunacy can never be assimilated, except so far that in each asylum district a poor-house should be selected in a central position, with land attached, to which tranquil and utterly hopeless cases could be removed.

The total number of the mentally-affected in Irish work-houses on December 31st, 1881, was 3,640; of these 1,771 were lunatics, and 1,849 idiots, or epileptic imbeciles.

As usual, the report is given of the Resident Physician and Governor of the Central Criminal Asylum at Dundrum.

The Inspectors, at the same time, point out that, at their instigation, a Commission of Inquiry was held into the general local management of the Institution, and the official relationship existing between some of the officers. These reports involving on different points, a divergence of opinion between the Chairman and his colleagues, being still under consideration by His Excellency the Lord Lieutenant, the Inspectors are precluded from making any remarks on the subject at the present time.

The admissions to Dundrum amounted to 20 during the year, being limited to serious criminal and tried cases. Of these eight were charged with murder, four with assaults, four with burglary, the remainder with minor offences.

The Inspectors, in concluding their report on district asylums in Ireland, say a word, which we trust will not be forgotten by the Government, on the salaries of officers and attendants in Irish asylums.

"It may not here be out of place were we to reiterate a long entertained desire that the staffs attached to public institutions for the insane in Ireland were more liberally dealt with, and thereby brought to a nearer approximation as regards salaries, wages, and pensions, to the occupants of parallel positions in England. The duties of officers and attendants alike, in both countries, are equally well performed in either; but when the question of remuneration is mooted, different opinions are expressed in different localities, and, what appears to us, a mistaken economy too frequently results, one which, disheartening even to the zealous, inclines many of our best attendants to seek employment elsewhere.

As two-fifths, at least, of the annual cost of supporting district asylums is furnished by the Executive, we venture to hope the subject of an improved arrangement in respect to salaries and wages will not be deemed undeserving of an early and favourable notice."

With regard to private asylums no change is said to have taken place in the number. The Inspectors state that "they have no actual cause to censure any, though open to improvement; some are conducted in a highly satisfactory manner, and may well bear comparison with the best managed elsewhere, in every domestic comfort. As a rule, the only difficulty we have to contend with, and so frequently noticed by us in previous reports, is in regard to patients, who, from continued inebriety, or an unrestrained indulgence in vicious and unreasonable habits of life, raise a question in themselves how far they can be considered as actually insane."

At the beginning of the year there were 622 private patients under treatment. During the year 145 were admitted, and 130 were discharged or died, leaving, at the beginning of the present year, 635 under treatment.

The following comparison of the changes which have taken place amongst the insane in public institutions in Ireland is worthy of notice:—

	1880.	1881.
In District Asylums	8667	8978
In Central Criminal Asylums	177	173
In Steward's Institution (Government patients)	20	18
In Private Asylums	622	635
In 163 Workhouses	3573	3640
In Gaol...	3	0
	13062	13444

382 more patients would thus appear to be under treatment at the beginning of the present year than in 1881, but the increase may be more apparent than real, as "continued destitution forces many, even amongst the poorest community in Ireland, who had been wretchedly maintained at home, to be sent to asylums or unions as the last refuge from starvation."

Amongst the statistics this year, from page 84 to 103 are given the tables of salaries, wages, and allowances, a return of those who have received "good service pay," and the salaries on appointment. To all who take an interest in the

internal management of public asylums we would recommend a study of these returns, showing the different rates of remuneration in different asylums.

The "good service pay" is, in truth, a pleasant feature of the management of the Irish asylums. At p. 10 the Inspectors evince their sympathy with, and disposition to help, the staffs of public asylums in the matter of salaries, wages, and pensions, by speaking a word in their favour. The addition of £100 a year to the salary of the superintendents after eight years' good service, is a specimen of the anomalies existing in the administration of the three divisions of the United Kingdom.

Animal Intelligence. By George J. Romanes.

This book is one of the International Scientific Series published by Kegan Paul, and Co., who deserve the thanks of all those interested in the further development of scientific education for the admirable series which they are publishing.

The present volume is certainly a great contrast to one which we reviewed some time ago, entitled "Mind in the Lower Animals," by Dr. Lindsay. The present volume is much more handy in shape than the former; the facts are more carefully selected, and are arranged in a more scientific manner. There is no bias of personal feeling exhibited by the author to colour—one might say to discolour—the facts which are presented to the reader. The book begins with a preface and introduction, which explain the scope of the work, and give one the promise of a further contribution by the same author. Romanes says that the present volume, while complete in itself as a statement of the facts of comparative psychology, has for its more ultimate purpose the laying a firm foundation for his future treatise on mental evolution. He desires to emphasise this statement, lest the critics, in being now presented only with the groundwork on which the picture is eventually to be painted, should deem the art displayed as of somewhat too commonplace a kind.

The author has been most careful to avoid being merely an anecdote-monger. All his anecdotes—and they are many—are either thoroughly well authenticated, or a note of warning is given when there is any suspicion of their authenticity, or when, from their very nature, they seem incredible. It would seem ungracious to speak of the author as making a too large use of the terms used in human psychology, but it appears at first

ludicrous to speak of the emotional side of the mollusc or the annelid. We feel fully the difficulty that there ever must be in comparing the intellectual functions of the higher with those of the lower animals. A time must come when we shall have *basis* terms—if we may use the expression—to describe the origin of mind in animals. Undoubtedly most of the emotional feelings are necessarily related to the existence of animals in a social state. Therefore, if instead of speaking of their love, reverence, and the like, we began by discussing as a whole the social-intellectual relationship, it would be simpler and less confusing.

No one could find fault with the clearness with which Romanes has arranged the facts. The scope of the book is, as we have already pointed out, a statement of the different healthy intellectual powers as they are seen in the different genera and species of the so-called lower animals. He does not consider the morbid states of these lower animals. The care with which the author has investigated the habits of animals shows not only his love of the subject, but his power of painstaking, toilsome work of collecting and verifying. It seems always to us that the bias of love and the bias of interest are nowhere more markedly seen than in the lovers of animals, who are always, like mothers of children, not only willing, but anxious, to believe that their offspring is the most wonderful that ever existed, and facts which appear to the interested as extraordinary, may really, after all, bear very simple explanations to the unbiased. A point that necessarily occupies a good deal of attention in this book is the instinct of the lower animals, and we shall indeed be sincerely glad when we hear more of the mind of animals and less of the instinct, for it seems to us that every careful observer adds facts proving the similarity of mental function between the *lower animals* and men and thus takes away from the speciality of the much-talked-of instinct. Probably all animals, high and low, have what is rightly called instinct, having some intellectual potentialities which they inherited from past generations—organized experience which has been for the good of the species, and which is transmitted, but it is no longer to be considered an absolute, unchangeable, divine possession which belongs to the lower animals only.

We would say, then, that in this book, though much is said about instinct, the feeling of Romanes is that the term "instinct" must be used in reference to the intellectual possessions of animals, but that nothing is meant by it more than inherited and organized

knowledge. It seems to be the essence of all nervous tissue to receive impressions from without and from within, and also to be so much influenced by these impressions that it stores up or has a memory of them. Given a tissue that receives and retains impressions, it requires but very little extension to understand the power of comparing these and acting upon them, the very survival of the being depending upon this memory of impressions received for its good and evil. Therefore, when a great deal is made in books of this kind of Memory as shown by one class of animal and another, it seems to us but an interesting collection of facts which one would expect necessarily to occur from the very existence of the animal itself. Facts of memory, facts of reasoning—*i.e.*, facts of comparing one impression with a former impression, one experience with a former experience—are constantly brought before the reader in this book, and these facts form the most interesting collection that we have ever come across.

The book must undoubtedly form a most important step in the advance of the true comprehension of mind. Most people are beginning to get perhaps rather tired of hearing Darwinism introduced into every possible branch of science, but the more thoroughly and completely we can follow the teachings of development the more clearly shall we see the truth. The book before us is one that we should most strongly recommend asylum superintendents to read, for not only is it pleasantly written and full of interesting facts, but it is one of the corner-stones of a new philosophy. We feel sure that much may be learned of the action of lower or perverted natures in man if we only sufficiently study the simpler actions in the simpler nervous organisms of animals. The time will come when some far-grasping mind like that of Goethe will be able to combine the facts of intellect as seen from the evolutionist's point of view with the aberrant forms of intellect as seen among the undeveloped idiot and the perverted lunatic, and then we may hope to have a firmer grasp of what is meant by "Mind."

The book being cheap, handy, and interesting, it seems to us almost unnecessary to do anything in the shape of analysis, but we may point out that the work is carefully divided into the natural families and orders, and that each is considered *seriatim*. As might be expected, some families fare much better than others, and one advantage of this book, at all events, will be that it will show those interested in the habits of animals the large gaps that are still left for observers. Already, among

asylum superintendents, we have had men who were careful observers of nature and lovers of animals, and we can conceive of no occupation more healthy for the many superintendents living in somewhat out-of-the-world parts of the country than careful watching of the habits and developments of habits of animals. Ants, bees, and wasps from time immemorial have received a full share of public attention. Ants of late have had more than their due share of notice, but although some writers have considered that more intelligence has been placed to their credit than they have deserved, yet we must say that our own feeling is that they are a most interesting and instructive family to watch. Romanes himself has already written largely upon the habits of ants, and therefore speaks not only as a compiler, but as an authority. We may take the subject of ants as an example of the careful way in which the subject is treated.

He begins with an investigation of the powers of special sense, their appreciation and choice of sites, colours, sound, direction, &c. He enlarges upon the sense of direction, and this is a sense that will have to be added to those generally referred to as belonging to animals. It has often seemed to us to be present in some human beings, and we can hardly explain the facility with which animals can find their way home without crediting them with some extra sense which we do not at present understand. Darwin has referred to his horse that always turned towards its old home in whatever direction it was taken out, and the homing pigeons are still subjects of deep interest in relation to this sense of direction. Ants seem to possess it, and bees, as well as some other insects. The powers of memory in ants are next considered, and a number of observations that have been made by such observers as Sir John Lubbock and Huber show the thoroughly scientific way in which these little animals have been investigated. After this are considered the emotions. Pugnacity, valour, and rapacity have long been attributed to ants, but with regard to the tenderer emotions we have less strong evidence. The powers of communication are next dwelt upon, and many interesting facts are referred to which prove the freedom of communication which these animals possess. After considering ants as a whole, the habits in general of sundry species are considered—such as the questions of nursing the young, educating them, the keeping of slaves and aphides, the conduct of their wars, and even their fêtes, their play, their leisure, and funeral habits. Among

their most extraordinary powers seem to be those of recognising members of the same species and of the same hillock when they have been separated for long periods of time, and what is more astonishing, and as surprising as the possession of the sense of direction, is the fact that certain ants seem to have the power of recognising the offspring from their own ant-hill, though these were removed before they had been hatched, being able to recognise as relations, young that were removed from the hill in the larval or pupal stage.

Habits peculiar to certain species.—Under this heading we have consideration of domestic, agricultural, and social habits, such as the cutting and shaping of leaves, harvesting (about which so many contradictory opinions have been expressed), the honey-making ants, military ants, and after this the subject of ants is concluded with a general summary of the intelligence of the various species.

From the above it will be seen how exhaustively the subject is treated. After ants, bees and wasps are considered, then spiders, beetles, crabs and lobsters, and fish. The subjects of snake-charming and the intelligence of birds are investigated. We were rather surprised to find the section on the intelligence of birds not so full as we had expected. The intelligence of mammalia is next discoursed upon, again somewhat briefly.

We suppose Romanes is right in spending most care and attention on those classes which are lowest down in the scale of life. The reading of this book has been attended with such genuine pleasure and relaxation, that in ending our review we would suggest that all the superintendents of asylums who have not read it should seize an early opportunity of doing so.

Shackles of an Old Love. By Mara (Mrs. Wilkin).

We are not in the habit generally in this Journal of noticing light literature, but this book, published by Allen and Co., was introduced to our notice from the fact that it describes asylum life, and to a certain extent an asylum physician and superintendent.

The book itself is full of most of the vices of the modern novel. It has the advantage, however, of being only in one volume, and not three. The style is stilted, slangy, and weak. The authoress, having a smattering of several European, one or more Eastern, and one ancient language, introduces words or phrases from these languages in the most distracting way, so

that without warning you may come upon quotations from five languages in one page—quotations that render no advantage whatever by their presence.

We do not intend to give the plot, but we may say that the superintendent of the asylum—a private asylum, by the way—Dr. Renfrewshire, is a man of the most astonishing capacity for general and special work, and also has a great power for social enjoyment as well. He is foolish enough, however, to fall in love with and marry one of his patients, who for a time was suffering either from partial dementia or melancholy with stupor. Some of the descriptions of asylum life are extremely good, and one can only understand the truthfulness of the description on the ground that the authoress must have some intimate knowledge of the inside of an asylum. One other point of interest in the novel is the terrible picture that is drawn of one of the characters who had become for a time habituated to narcotics, and if this novel has the effect of frightening any of the many ladies of fashion who are in the habit of getting rest by means of chloral or morphia, it will have done good. In leaving it, we would say that if any one has patience to get through the book it may form a rather amusing distraction for a day.

Clinical Lectures on Diseases of the Nervous System. By Thomas Buzzard, M.D., Lond. London: J. and A. Churchill, 1882.

We welcome these lectures as the outcome of Dr. Buzzard's long and conscientious study of the diseases of the nervous system. They form a very valuable contribution to the scientific understanding of these affections, one which combines the practical and the theoretic in the way which is most valuable and useful to the practitioner. To all who desire to be in possession of recent knowledge bearing on the diagnosis of diseases of the spinal cord, &c., illustrated by cases, Dr. Buzzard's work will be of essential service. The signification of symptoms is either satisfactorily explained, or the difficulties are stated, and the most probable solution is suggested without being dogmatically asserted. We shall not attempt an analysis of this book, but as an illustration of its practical character, shall take one symptom, the absence of the patellar tendon-reflex.

Dr. Buzzard warns the reader against supposing that this is confined to cases of tabes, and lays down the condition on which it rests, namely, any destructive lesion of the cord at

the part from which the nerve supply of the quadriceps extensor is derived, or of the anterior or posterior roots of the lumbar plexus. This may happen not in locomotor ataxy only, but in acute myelitis, infantile paralysis, polio-myelitis, spinal meningitis, perineuritis, diphtheritic paralysis. It may also arise from degeneration of the muscle of itself, as in pseudo-hypertrophic muscular paralysis. The quadriceps femoris must be in a healthy condition itself to make the absence of patellar tendon-reflex characteristic of locomotor ataxy.

The following passages are fair illustrations of the qualities of Dr. Buzzard's style of lecturing, and contain facts worthy of record in this Journal, for it is hardly necessary to observe that tabetic symptoms are in close relation to general paralysis of the insane:—

The symptom (absence of patellar reflex) is of such comparatively recent observation that I do not feel able to say from my own experience whether it is ordinarily to be met with so early as this (six months after the first symptoms of tabes), but Erb, who began to investigate the matter before I did, has been led to consider it as one of the earliest symptoms. It is certainly one of the most constant. Erb has lately shown that the symptom was found by him in 48 out of 49 cases of tabes dorsalis in which he sought for it. Out of 30 cases of tabes in my own practice in which I applied the test I found the tendon-reflex absent in 28. The two patients in whom it was still retained (for one of whom I am indebted to my colleague, Dr. Jackson) presented no ataxy of gait, but I have no doubt that they were cases of tabes. They both suffered from atrophy of the optic nerves and characteristic lightning pains. One had some tottering on closing the eye, some bladder and sexual weakness, with anæsthesia of the extremities. The other had some symptoms resembling the *crises gastriques* of Charcot. I do not include here other cases than those which have occurred in my own practice, but it is within my knowledge that the kind of frequency described is met with by others. Now, if we add together Erb's cases and my own, we find the absence of patella tendon-reflex noted in 76 out of 79 cases of tabes dorsalis, *i.e.*, in about 96 per cent. In two out of the three exceptions there was no ataxy.* There can be little doubt, I think, that this symptom holds the same rank as an *objective* sign of tabes as is occupied by the characteristic pains amongst the *subjective* symptoms of the disease (p. 138).

Dr. Buzzard mentions a case in point, in which absence of the reflex was the first symptom which suggested that it was one of tabes. Pains to which the patient had been subject, and which he had mistaken for rheumatism or neuralgia, turned out to be tabetic.

* Subsequent experience of numerous cases confirms this observation.

Dr. Buzzard proceeds :—

It is of much importance to remember that the two symptoms—on the subjective side pains of the character described, and on the objective side the absence of patellar tendon-reflex (with a fairly normal condition of the quadriceps extensor muscle)—are the most constant, as they are probably the earliest of all. My belief is that if we meet with a patient who exhibits them both, we do not need the presence of any in order to form a diagnosis of tabes dorsalis (p. 139).

In reply to the questions, What is the cause of the knee phenomenon ? and Why is it absent in tabes? Dr. Buzzard writes :—

I do not think we are as yet in a position to give a positive answer to either, and the subject is still under investigation. The first idea is that the contraction of the muscle must be brought about by a reflex from the skin or the part which is struck. But Westphal has practically disposed of this explanation. He pinched and pricked and irritated the integument in various ways without effect, even submitting a fold of the skin, lifted away from the tendon, to smart blows with a hammer. On the other hand, when the skin lying over the ligamentum patellæ was frozen by Richardson's process, the effect of blows upon this spot in determining the contraction was in no way lessened. So also in cases (not being examples of locomotor ataxy) where there was complete cutaneous anæsthesia the phenomenon has been found present. The influence of the skin must therefore be excluded. Erb has suggested that the blow upon the patella tendon by suddenly stretching it, irritates some nervous fibres belonging to the tendon, the impression thus produced being conveyed to the cord and there exciting the motor nerves to the muscles. On the other hand, the experiments of Tschirjew, of St. Petersburg, seem to show that the reflex is to be ascribed to irritation of sensory nerves distributed to the aponeurosis of muscle. He found that section of the cord in guinea-pigs above the place of entrance of the sixth lumbar nerve-roots caused the phenomenon to disappear. In addition to this, when the posterior root of one of the sixth lumbar nerves was divided, the phenomenon failed on the corresponding side. If these experiments were free from fallacy, their reflex character would seem to be placed beyond doubt. Degeneration of the cord at the point where the nerves enter, may easily be supposed to be capable of interfering with the orderly reflex which thus occurs in health, and in this way the effect of posterior spinal sclerosis in preventing the exhibition of patellar tendon-reflex may possibly be explained. The very rare circumstance of the lumbar portion of the cord escaping the degenerative changes in tabes dorsalis would thus sufficiently account for the certainty with which, apparently, the diagnostic sign may be looked for (p. 9).

In reference to the occasional occurrence of this important symptom in health, Dr. Buzzard observes :—" Westphal says

he has seen no instance of this. I certainly failed to produce the reflex not long since in a member of our profession, whose health happily leaves nothing to be desired. The experiment was, however, inconclusive, as the skin was not bared" (p. 9).

Before another edition is published—and we confidently look to the demand for another edition of these excellent clinical lectures—it is to be hoped that the said member of our profession will also "leave nothing to be desired" in the matter of baring his leg for a few minutes while our author applies the inexorable hammer which we have so often seen him effectively employ. A photograph ought to be taken of the operation, and substituted for the illustration at p. 2, in which we fail to recognise the likeness of the author.

Study of Spinoza. By J. Martineau, LL.D., D.D. Macmillan and Co., 1882.

Spinoza, His Life and Philosophy. By Frederick Pollock, C. Kegan Paul and Co., 1882.

It seems strange that in so intensely practical an age as ours we should find ourselves zealously building monuments to the most speculative of modern thinkers. What has the "god-intoxicated man" in common with Huxley or Mill or Herbert Spencer? It can hardly be the pseudo-mathematical garb of his reasoning that has attracted men to the greatest of the Pantheists in this pan-materialist generation. Perhaps it is a recoil.

The meeting points of separate currents of historic thought are always noteworthy. Yet hardly any perhaps can be more interesting than that at which Baruch Spinoza stood. His writings disclose but little familiarity with any lines of thought but two, and these at first seem hopelessly apart. From his youth apparently he knew the Hebrew Scriptures, and the Talmudic lore. The prince of modern Hebrew thinkers, Moses Maimonides, was familiar to him as a schoolboy. Led by the speculations of Spanish Jews, he was prepared to study the new ideas of a rationalizing Frenchman. To the system by which Descartes had set agoing the movement of a purely western philosophy, Spinoza, on leaving school, seems to have bent his whole mind. Out of the meeting of these two currents, undisturbed by much after guidance, for he himself tells us he knew little Greek, he built up a new system too mystic to be truly Cartesian and yet too logical to be really Judaic. This unique doctrine, with its merciless insistance on the nothing-

ness of all finite or definite modes of existence, as contrasted against the infinite background of essential being, became at once an influence which no thinker could ignore ; and in that sense it moulded all the subsequent course of European thought. Yet it is a curious result of its own hybrid origin, that as a school it had itself no history.

Of the two volumes recently published, each has its own merits and its own defects ; but neither can be said to be an appreciative account of the Spinozist philosophy. Mr. Pollock is deeply wedded to the modern point of view from which physical science is all important—and which, whatever he may say, is almost the direct antithesis of Spinozism. Dr. Martineau is interesting and lucid, but he seems at once to fail in metaphysical grasp, and to be prevented by over-ingenuity of detail. To both, however, we may fairly accord the praise that they stand far ahead of anything which yet exists upon Spinoza in the English tongue.

Concerning the philosopher's physical interests, a curious point is brought out by Dr. Martineau in his account of the correspondence with Oldenburg, the original Secretary of the Royal Society. That busy and generally useful gentleman is perpetually asking Spinoza for criticisms or information concerning the discoveries then exciting the scientific world as to the nature of the Torricellian vacuum, the rings of Saturn, the escapement timepiece, the comet of 1665. Yet Spinoza cannot be induced to take any real interest. Being questioned, for instance, about the doings of his neighbour and acquaintance, the famous Huyghens, who was just perfecting his pendulum arrangements, Spinoza, the lens-maker, has nothing to say but that "the said Huyghens has been entirely taken up with polishing lenses, and has fitted up for the purpose a workshop which is neat enough ; but what good it will do I do not know nor much care to know, for I am satisfied by personal experience that the free hand will polish better than any machine." Truly, an unscientific turn of mind.

The fact is that although Spinoza's early study of Descartes had led him to enter a certain distance into the paths of natural science then open, his real interest in philosophy was of another kind altogether. It is in what Hegel calls, "the intuition of absolute identity, which is an echo of the East," that his philosophy begins and ends. Therefore his mind was fixed not on natural phenomena, for these were all insignificant alike, but on that which alone is true and real in the essential sense, the one Substance whose attributes are thought and nature. All the "modes" or individual forms in which being is manifested

to us, the "determinate" or "finite" as such, are mere negations of the infinite reality, and therefore are in themselves of no philosophical value or import at all. They cannot give us truth, for they are of that nature that they might as well not be, as be what they are.

This relentless Monism is at once the cardinal merit and the great defect of Spinoza's thought. It has been said that it is the necessary beginning of speculative thinking, but if so, it is no more than the beginning. The conception that somehow all things in the last resort lead on and up to one infinite and all-embracing unity is, in a sense, the condition of any metaphysics at all. For unless there were an ultimate unity in things, there would be foreign elements in the universe which after all investigations would remain insoluble. But the same thought has a corollary which Spinoza only vaguely grasped. If there be a unity it must be somehow akin to our thought, atoms of finite intelligence though we be; else we could never hope to attain the ultimate truth at all. Of course this necessity was present to Spinoza always; but the logic of his system does not truly reflect it. The individual I, my mind and my body, are only modes like each other, and like the rest unsubstantial and vain. Even *thought*, taken as infinite, is but one "attribute" of the only reality, standing side by side with *extension* as another attribute which somehow we know of also, and with an infinite number besides, which somehow we never knew. Why Substance is expressed in these attributes or infinite phases of being, and why again it should, under each and all of these, still further express itself in definite "modes" or individual existences, is a riddle unsolved by him. Substance is a gulf towards which, like the lion's den, all tracks lead inwards, but none point outward again.

This rigidity in the conception of God as substance is itself in fact an outcome of the Judaic, or rather non-Christian character of Spinoza's thought. For it must be remembered that the main speculative conception which Christianity added to the Hebrew Monotheism was that of God the Infinite as making manifest Himself under a finite mode of existence, and yet remaining infinite still. And this formula, though itself a question not of philosophic speculation but of dogmatic faith, revealed nevertheless to Christian thinkers the possibility of kinship between the individual, finite though he seems and in a sense is, and the universal spirit by whom and in whom are all things. To Christianity, therefore, not only was the individual life and soul of each individual man a thing of paramount value, but it was so, exactly because it was in the likeness of God;

and yet it was equally insisted that, though it was destined to find its ultimate perfection and blessedness in a union with the Divine, it should not lose even then its individuality, but should find rather a more and more true and real selfhood in that mystical union with the universal which is the perfect love of God.

To all this range of ideas Spinoza remains a stranger. The notion of God as revealing Himself in His creatures is repellant to him. He will not object to speak of "natura naturans" and "natura naturata" or, again, he will say that each attribute adequately expresses in its own way the Universal Substance. But these are themselves cut off by a wide and unbridged gulf from the actual persons and things of the world of our experience. Neither in the things of nature nor in individual human minds is it, from Spinoza's account, at all clear how the Divine is expressed. In a sense it is expressed by every mode, but it ought to follow that it was expressed by every mode indifferently. It is true that in the ethical interests, which bulked so much more largely for him than for his master Descartes, Spinoza sometimes seems to be looking at the universe from a different point of view. But it is a point of view for which no basis is laid in the elaborate apparatus of the metaphysical introduction.

It is a singular fact, if we may descend from these transcendental heights, that Spinoza should have chosen to cast his Ethics into the form of mathematical demonstration. Among the very few philosophers he knew, Bacon was, as we learn from his letters, one; but he found his method entirely wrong. A working hypothesis would not help Spinoza. He must have a criterion of certainty, once for all. This, in the true Cartesian spirit, he finds in an exhaustive analysis of our stock of ideas, till he finds those which presuppose no others, but in some way evidence themselves. These group themselves about the "causa sui," and are therefore stateable only by a series of "definitions." If these be impugned, Spinoza can only refer us to the verdict of our own consciousness. If they be admitted, the whole content which lies hid in them may be developed, like Euclid, by strict deductive logic; and this content is no other than the whole intelligible universe. Now such a method, in "tali materiâ," is simply absurd. Not only is the whole thing a commentary often needless and always disputable on the first page of the book, but that first page itself is never justified at all. Of his great parallel and follower Hegel, the same is often said; but there is a striking difference. Hegel asserts, as all men must, that thinking *without* presuppositions is absurd; but he goes on to say that the assumptions are only justified if at

the end of your whole system you can deduce them again, as at once the first links and the last of a chain that encircles all things.

But there is another side of Spinoza's system which will specially interest our readers. It is his peculiar and characteristic view of the relation of body and mind. To understand this we must remember how Descartes had posited *two* independently subsisting "Substances," thought and extended matter, which could indeed only come into connection at all by a kind of constant miracle. Spinoza, revolting against this unsatisfying dualism, asserted that these two entities could not be substantial, for substance could be only infinite and one, that is to say, could be nothing but that "God" which lay behind thought and matter, and by and in which these also subsisted. But in what relation then would thought and matter stand to this Divine Substance? Spinoza, as we have said, *calls* them Attributes; and when he comes to define what that exactly means he is not at all precise. We gather, however, this at least, that an attribute does not really express or define the real nature of substance, for as being unlimited and infinite every way, the substance must needs have an infinity of attributes. To intelligence however, that is to say, to us, it is manifest in these two lights and in these only. Our notion of it is of course immaterial to the real nature and essence of this God or Substance, for we are ourselves but insignificant "modes." Each presentment of God, however, even though it be only to us in this limited way, must be an expression of one and the same reality. Each attribute then is the manifestation of the same thing in different languages. And therefore of course we land in the conclusion that Thought-Extension: the one can at every point be equated to or translated into the other. In this perpetual parallelism every mode of the one corresponds to and translates a like mode of the other, not because there is any causal interconnection between them, but because they are the corresponding points in two parallel causal series which somehow proceed from the Divine. Thus, therefore, we can say with mathematical truth, as Thought and Extension are different ways of looking at the same Substance, so mind and body are different ways of looking at the same entity.

The modern psychologist must not assume from this, however, that Spinoza either took mind to be a function of the body, or believed body itself to be unreal. Both are equally real, in that they express after their limited, finite, modal fashion, the eternal life and truth of Substance. Both are equally unreal, because as being determinate, they are the creatures of

negation, depending on things other than themselves, the passing phases of an endless flux. Each is wholly independent of the other, following out its own inner law of rigid causal necessity, which is as rigid for the mind as for the members. In itself it is nothing to either that the other is there. The mind needs no body to go on in its own way expressing so much of the eternal life of the Divine as is given to it to express; and with equal truth the body needs no mind, and in its way expresses Substance equally well without one. Yet the two are so intimately bound together in fact, that their expressiveness keeps time and they work together like a pair of oars, although like them it is by no inherent kinship or interaction, but because they equally and evenly reflect the action of the one real motive power which is behind them and to which they are themselves as nothing.

In this line of thinking Spinoza came indeed nearly to the same view as Leibnitz. The latter, who never arrived at a systematic view of the world, threw out amongst other hints the idea that all individual existences, though in themselves independent and determined from within by a causal impulse that came only from God as the source of their being, were yet so ordered that they synchronized at every point by "a pre-established harmony," and behaved exactly *as if* they were causally determining one another all the while. In both theories, curious as they are, the intention is obvious enough. It is simply the endeavour to get over the Cartesian error which has placed thought and nature side by side as absolutely independent and alien facts, without losing the Cartesian truth, that they were yet somehow one after all.

On moral questions and the whole theory of responsibility, the great Pantheist held characteristic and startling views. Following out the same idea that "from God, infinite results follow in infinite ways," and that God, or more properly Substance, is the cause of all that is, he concludes of course that what we call evil, so far as it is a positive conception at all, must be the work of God as much as what we call good. All that is truly called evil, however, as he explains to a scandalized correspondent, is mere negation, is finitude, is nothing. "Nero's matricide, in so far as it was anything positive, was no sin. For Orestes did the same act and had the same intent, and yet he was not blamed. Wherein then did Nero's villany consist? In nothing else but his ingratitude, his pitilessness, his disobedience. But all this *expresses no essence*, and therefore God is not the cause of it, for it is plain that such privative conceptions exist only in reference to our understanding, and are

nothing to God." It is needless to point out how unsatisfactory from any point of view this logical sophism is. The fact that Nero was a "modus" endowed with so little of those particular kinds of reality or essence, is exactly the fact to be explained. To this Spinoza would probably have answered, that he was what he was, and that by a necessity which had its root in God, and that to complain of it was as if one should complain that a cabbage was not a pine-apple. But that answer itself indicates the really characteristic element of his Ethics—namely, their rigid and absolute determinism. "A man is no more free in his volitions than a falling stone would be if it were conscious of its falling." How, it may be asked, can a man believe this, and yet go on living? This is a problem that in its way struck Spinoza also. But his solution is the most beautiful and noble element in his whole work. It is our only freedom, he thinks, to recognise our servitude; and seeing this, we should look up to the one great Being and let our thoughts rest in Him, in that "amor intellectualis Dei," which is at once a kind of self-annihilation and yet a kind of philosophic ecstasy.

This, in fact, may be called the keynote of Spinozism. It is that boundless unselfishness which Goethe praised in him. "In that book I found," he said, "that which stilled my emotions: for that marvellous saying that 'whoso truly loves God must not expect God to love him in return,' was the burden of all my thoughts." So in Spinoza's own life it was the sense of the instability and vanity of all common desires that led him on to seek that in which he might find "a perfect and eternal joy." The love of finite things breeds strife and fear and bitterness; "but love for a thing eternal and infinite feeds the mind with joy and joy alone, and itself is free from all sadness." Let us, then, if we would be wise, renounce all that men commonly desire, but let us bend all our minds to seek this better way.

It is a noble and a truly religious strain, and proves how mistaken was the parrot cry of Atheism with which his contemporaries met his system. The truth is that, as a great philosopher said of him, he is "not an Atheist, but an Acosmist;" he denies not the existence of God, but the existence of anything else. And this, as has been said already, is at once his strength and his weakness; his strength, because it enables him to look at all things from a high metaphysical point of view, emancipated altogether from the presuppositions and limitations of a mind that starts with the particular, as we are now-a-days too apt to do; but his weakness also, because it led him to ignore the immense importance of the individual when viewed in a true light. He was right to say that we must see all things

"sub specie eternitatis." He was wrong when he inferred that man and nature, so seen, would appear as nothing by the side of the great reality. And he was doubly wrong when he carried the same error further by referring all individual life or definable action to the Substance itself. In one sense only did he deny God—for that which he called God was an abstraction—a mere gulf into which all being was swallowed up—a thing not only without personality and without love, but without even life. The most fundamental of all modern criticisms upon him is that which says that "τὸ ὄν must be viewed by any true philosophy, not as substance only, but as subject."

We have left ourselves but little room to comment on the special peculiarities of the two commentators. For painstaking care and accurate knowledge, they are not to be surpassed. But they are neither of them kindred spirits with Spinoza, and they seem to us to miss the real meaning and endeavour of the great Jew. Mr. Pollock has a grand contempt for that "generation filled with the East wind of mystical ravings," in which the unfortunate Spinoza lived, and he evidently thinks he would have done better if he had been able to sit in these more genial days at the feet of Huxley and Herbert Spencer. His conception of Spinoza is of a man in whom the "pantheistic or mystical element, as we may call it, is not merely placed beside the scientific element, but fused into one with it," a formula not in itself false, but, if we may say so, decidedly misleading. So again, to note a single point among many, Dr. Martineau, as it seems to us, misses the meaning of Spinoza's perfect form of knowledge, which he called "scientia intuitiva;" and, on the whole, he appears to be led away by an over-subtlety in his endeavour to mark out the different stages of Spinoza's view, and to assign one phase to an early stage of his thinking and another to a later one. But there can be no question that the scientific world has a great deal to be grateful for in these two careful and conscientious studies of a too little studied writer. The method of his philosophizing may seem to many too vague and speculative for our modern fashions of enquiry. But there is a sense in which, as we have said, Spinozism is the necessary beginning of all philosophy. Let us consider whether, with all our strictly scientific progress, we do not stand in need of being recalled to the ultimate questions. If we do we cannot do better than read Spinoza, not only or chiefly in his commentators, but in his own clear, modest, and noble pages, which are after all the only adequate account of a unique figure in the history of the world.

The Human Brain. Histological and Coarse Methods of Research. A Manual for Students and Asylum Officers. By W. Bevan Lewis, L.R.C.P. London: J. and A. Churchill, 1882.

The only unnecessary part of this book is the preface, in which an apology is offered for its publication. It is in point of fact one of the most important contributions, if not the most important, which has been made to the library of psychiatric medicine for many years past. In this department of physic post-mortem examination is undertaken not merely with a view to ascertain the cause of death, or to confirm diagnosis, but also to correlate the morbid bodily conditions as far as possible with the various types of mental symptoms. In order to do this with the hope of obtaining satisfactory results it is of the highest importance that all workers in the field of medicine should work on a common plan. The labour of the formulation of a systematic method of examination could not have been undertaken by any one more fitted for it than Dr. Bevan Lewis, whose immense experience as pathologist in the West Riding Asylum places him in the front rank of observers of brain disease. He has done the work most thoroughly, and in the most unselfish spirit has communicated the results of many years of labour to the profession, discovering to it all the arcana of his art. The student is directed not only what to observe, but how to observe and record. If the precepts of this manual be attended to, reporters of post-mortem appearances will become disciplined, and although it must, in the great majority of instances, be impossible to carry out autopsies to the fullest extent, the acting on a common system of rough observation will be found to be of very great importance. Not only does this book fulfil its function, but it affords ready reference to the general anatomical features and physical properties of the various structures of the brain, and contrasts their condition in health and disease. Critical examination of its pages fails to lay bare any fault of omission or commission; it is a thorough work of reference to which the dissector may apply in any difficulty which may arise.

The second part, treating of the minute examination of the brain, is equally thorough. No one can appreciate its value who has not applied himself to microscopical brain work. But a very few years ago the student of morbid cerebral anatomy was hindered by the difficulty of ascertaining the proper mechanical methods for conducting research. It is within the

limits of accuracy to say that twenty years ago not more than six men in this country knew how to make a satisfactory microscopic section of nervous tissue, and it was not always easy to extract from them a description of their systems of manipulation, and a vast amount of labour was thrown away in individual efforts to procure thin sections. With Bevan Lewis's book before him, the student of to-day has everything he can possibly desire, down to the minutest directions, and it is his own fault if he does not prosecute inquiry to the uttermost.

It is quite unnecessary to detail here the contents of the various chapters of this book; we merely repeat that its presence is an absolute necessity in the pathological department of every asylum and hospital.

Much as the author has to be congratulated on the publication of his manual, we look to him for something even more important—the tabulation of the results of his experience gained by the prosecution of these systems of observation.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *French Retrospect.*

By D. Hack Tuke, F.R.C.P.

Archives de Neurologie, Juillet 1881 to Juin 1882; *L'Encépale, Mars* 1881 *to Juin* 1882.

Among the many valuable articles in the "Archives" there is a series of papers on Hysteria and Hypnotism by MM. Charcot and Richer. They describe at great length the signs and conditions of neuro-muscular hyperexcitability. Some subjects are found to present the phenomena from the first time they are hypnotised. The greater number, however, require a certain period before the perceptibility is developed.

Neuro-muscular hyperexcitability which characterises that form of hypnotic sleep, called by Charcot *induced hysteric lethargy*, consists in a special aptitude of muscle to contract under the influence of a mechanical stimulus. This stimulus is preferred to electricity or the magnet, as with slight exception, it only acquires its power during hypnotism.

It should be observed that the exaggeration of tendon reflexes is common in cases of the "grande hystérie," and is usually associated with the anæsthesia and amyosthenia which mark the intervals be-

tween the crises, and is localised or most intense on one side of the body. It is not surprising, therefore, that in the hypnotic lethargy or artificial sleep, there should be marked exaggeration of the reflexes, an exaggeration which is the basis of neuro-muscular hyperexcitability. In induced hysterical catalepsy, the tendon reflexes are, on the contrary, abolished.

MM. Charcot and Richer classify all the phenomena which may occur in this exaltation under two heads, the diffusion of the reflex, and the modification of the reflex contraction which follows the blow on the tendon—as when more lively without being of longer duration; or longer and thereby tending to tetanism or contracture.

Tracings were taken by Marey's graphic apparatus, of these reflexes, and are given in the fifth number of the "Archives" (Juillet, 1881).

It has been found that kneading the muscles, friction, or simple pressure are more certain to cause localised contraction than a blow on the tendon, and are therefore more serviceable for the purpose. It would carry us beyond our province to enter into these details of the experiments, interesting as they are.

MM. Charcot and Richer draw a parallel between this mechanical excitation in hypnotism and localized faradisation. Thus the points in which they are similar are (1) The possibility of localising the excitement to a single muscle or a group of muscles. (2) The possibility of exciting a muscle, either *directly*, by directing the excitement to the fibre itself, or *indirectly*, by directing it to the proper nerve in some parts of its course. On the other hand the differences are (1) The non-similitude of the result obtained; contraction with faradisation, contracture in the case of hyperexcitability. This, however, is only true of the muscles of the limbs, for mechanical excitation of the face in hypnotism causes only contraction—not contracture. (2) While it is easy to localise the electrical excitement to only one part of a large muscle, total contraction of the muscle is induced by mechanical irritation of one part of it. (3) In regard to the propagation of the excitement in the state of hyperexcitability, the movement of a muscle is usually accompanied by the action of those in immediate relation to it, which is not the case in applying the faradaic current. (4) A specially exaggerated tendon reflex is present to commence with in hypnotism, and not in persons awake and in health to whom faradaic excitation is applied.

In the application of mechanical excitation or pressure to the isolated muscles of the face, MM. Charcot and Richer have had the same difficulties to contend with as Duchenne, but like him, they have overcome them. The results are extremely interesting, and reflect great credit upon the experimenters.

The conclusions of Duchenne as to the parts played by the various facial muscles in expression are confirmed by the experiments made during the hypnotic sleep, in a manner that was not expected at the time Duchenne worked.

The effect of opening one eye in certain subjects in the hypnotic

sleep, in producing hemi-catalepsy is known to those acquainted with M. Charcot's service at the Salpêtrière, but it may not be so generally known that this one-sided catalepsy causes all trace of neuro-muscular hyperexcitability to instantly disappear on that side, in spite of our continuing to excite the same motor points on the face. One remarkable fact ought not to be omitted, namely, that in one subject the hyperexcitability held good of the muscles of the ear which are so rarely subject to the will, and were not so in this case. The muscles responded to both direct action upon their fibres, or indirectly by exciting the temporal branch of the facial.

Neuro-muscular excitability is marked in the first degree by a tendency in the tendon reflexes to excite more or less general contraction. Thus the locality of the contraction is established ; partial contraction of different muscles may be obtained, and the different processes by which it is produced may be classed according as they appear to be efficacious. It is the excitement of the tendons which first succeeds, then that of the muscles themselves, and lastly that of the nerve-trunks. It is only in the best developed cases that this increased susceptibility can be induced in the face. A case will best exemplify this condition.

C., aged 20, hystero-epileptic, with left hemiplegia and achromatopsy. She had not been hypnotised by Charcot, and seldom by others, while the phenomena of hyperexcitability had never been elicited. When awake the tendon reflexes were exaggerated at the knee, but without extending to the upper limbs. There was elbow tendon reflex, but scarcely any at the wrist.

The patient was quickly sent to sleep by being made to stare at an object. It was then found that the wrist reflex was markedly exaggerated, but no contraction followed at first. By repeating the blows on the tendon, however, the contraction developed. Ten raps on the tendon rendered the joint quite immovable, as if permanently contracted. Friction of the antagonist muscles as easily removed this condition. Kneading the muscles of the forearm, which had failed before to produce contraction, now succeeded completely; awakened by blowing on the face, C. was found to exhibit still more exaggerated wrist reflex. In these experiments, therefore, we witness the three degrees of muscular hyperexcitability which have been described. In a second experiment, made next day, more tendency to contraction was observed, and even more so while awake. The wrist reflex was well marked, especially on the left side. Patella reflex always much exaggerated. A blow repeated on the front of the left wrist immediately caused contraction of the left, but not of the right joint. As when asleep, so when awake, it was dispelled by friction of antagonist muscles. C. was then thrown into the hypnotic sleep, and in the left arm contraction was easily induced by exciting the tendons, by muscular kneading, and irritating the nerves. Pressure on the ulnar nerve at the elbow caused contraction of the hand *en griffe*. In the right arm,

exciting the tendons and muscles, gave similar results, with some modifications.

The *main en griffe* having been produced on the left side, a magnet was placed near the right forearm, with the object of transferring this condition to the right. Ten minutes passed without any transfer. The right arm retained its flexibility, and it was observed that the contraction of the left, instead of disappearing, was still more marked. Thus the right ulnar could not be excited. Hyperexcitability was not developed in the face until several months afterwards. Of the contraction thus produced under hypnotism by touching various muscles at their insertion with a pointed instrument, photographic illustrations are given. The illustrations in this and other examples are of great interest, and the assiduity and ingenuity with which these experiments are carried out at the Salpêtrière under M. Charcot are extraordinary. The aid rendered by photography is enormous.

In the next case a difference between the two sides of the body was also exhibited.

E. P. Hystero-epileptic, totally anæsthesic, ovarian tenderness, &c. Hypnotism succeeded exceptionally well by means of staring at an object. She at once entered into the cataleptic state, which would last indefinitely, and then sleep could only be induced by closing the eyes. The catalepsy ceased the moment she became lethargic. The neuro-muscular hyperexcitability characteristic of the lethargy, presented the following conditions on the day on which the observation was made:—

1. Energetic kneading of the muscles was requisite to produce contraction.

2. It appeared more easily after exciting the tendons. But it is necessary to repeat the blows, and the contraction is observed gradually to increase. Simple pressure on the tendon is useless.

3. Hyperexcitability is more developed on the left than the right arm.

4. When excitation is insufficient, contracture more or less prolonged is only obtained, or rather a contracture, which soon passes away of its own accord.

5. Contraction once induced remains after the patient is awake.

MM. Charcot and Richer state that in the case of one patient whose neuro-muscular susceptibility was easily excited, the particular muscular condition suddenly disappeared, to be replaced by a state of paralysis on one side, which continued when the patient was awake. In a short time, by certain manipulations, the paralysis was removed.

Of the true hypnotic catalepsy and the cataleptiform condition (in hypnotism) the authors of this article speak at some length, and we shall proceed to present a short résumé of their conclusions on these most interesting states.

First with respect to true catalepsy, it may follow the sudden impression of a bright light on the retina, with electric light, or Bourbouze lamp, the unexpected blow on a gong, &c. It may also succeed

to the hypnotic sleep caused by fixing the eyes on any object. It is sufficient, in this case, to raise the eyelids to induce the individual to pass from his lethargy into a state of catalepsy.

The characters of the cataleptic state when thus induced are as follows :—

1. The eyes are open, and there is a fixity of look which is considered one of the most important signs. The physiognomy is at once inexpressive and expressive ; the patient appears absorbed. The expression resembles that of the *extase cataleptique* of authors.

2. The winking of the eyes has disappeared. The conjunctiva is red and generally insensitive ; the tears sometimes fall on the cheek. The state of the pupil varies.

3. The limbs retain the position in which they are placed. They appear very light when one raises them or changes their position. *Flexibilitas cerea* is not present, but the limbs can be placed in any position with great facility, and remain so for long. Massage or friction of the muscles does not affect them.

4. Neuro-muscular hyperexcitability is not present. Tendon reflexes are completely abolished.

5. Cutaneous anæsthesia is complete. The senses remain partially intact.

6. Suggestion. Influence of gesture upon the physiognomy ; psychic phenomena ; automatism ; hallucinations may be induced.

This cataleptic form of nervous sleep is quite distinct from the induced hysterical lethargy of which, as we have seen, neuro-muscular hyperexcitability, constitutes one of the principal characters. The two forms may follow each other in the same subject or even appear simultaneously in only affecting one half of the body. The hypnotic sleep may not, however, present these typical forms, and cannot always be divided into two distinct periods, but may present a mixed form—a lower phase—in which the two orders of symptoms are present at the same time, and then the cataleptiform as distinguished from the cataleptic state is observed. An illustrative case is given by the authors, and the following summary is added of the symptoms of the cataleptiform condition, in order to differentiate it from true catalepsy.

1. The eyes are generally closed ; if they are open the spasm of the eyeballs prevents the patient looking steadily at anything.

2. The aptitude of the limbs to preserve the position imposed upon them presents the following characters : —

(*a*) Frequently this attitude is unequally developed in different segments of the body.

(*b*) The limb is heavy to lift, and there is present in the joints a certain amount of *flexibilitas cerea*.

(*c*) In order to retain the limb in the position in which it is placed, it is necessary to retain it there a few seconds.

(*d*) In the majority of cases the limb soon falls down by itself.

(*e*) Lastly, friction and massage of the muscles always induce the resolution of the limb which falls powerless.

3. Neuro-muscular hyperexcitability is present to a certain extent. The tendon reflexes are exalted.

4. Whether the eyes are open or shut the muscular state remains the same, always presenting this double character of hyperexcitability and the cataleptiform state.

MM. Charcot and Richer, in explaining the relation between these two last mentioned conditions, observe that the limb which appears to be cataleptic is in reality only contracted, or more correctly contractured, the contraction is developed under the influence of the manipulations of the experimenter who desires to produce it. In attempting to modify the position of the limb regidity, which is a certain indication of contraction, is produced. This contraction yields to the influence of kneading the muscles of the limb.

The following case brings out in relief the points of difference between the cataleptiform condition, and true hypnotic catalepsy, and the relation between the former and the phenomena of neuro-muscular hyperexcitability.

C. is easily sent to sleep by pressure over the eyeballs and the temples. This state is characterised by the exaggeration of the tendon reflexes and by the tendency of the muscles to contract under the influence of the mechanical excitation of either the tendons, the nerves or the muscles.

Neuro-muscular hyperexcitability is not general with C. It is not present in the face (but this was subsequently induced). It was attempted to produce the cataleptic condition by opening the eyes. The eyelids were easily raised, but the eyeballs were spasmodically fixed upwards, and to the right. The cataleptic condition thus observed was imperfect, the limbs remaining in the position in which they were placed, but frictions on the surface of the limb restored them to their former condition ; neuro-muscular hyperexcitability is preserved, and the tendon reflexes remain. There is here the cataleptiform condition. In forcibly opening the eyelids the balls are fixed in a downward direction from the time the catalepsy is perfect. The limbs are supple, easily moved; the attitudes imposed are no longer modified by the friction of the limb ; there are no longer tendon reflexes nor neuro-muscular hyperexcitability.

In the course of the same sèance the authors made an experiment calculated to throw light on the relations between the cataleptiform condition and the hyperexcitability referred to, namely, by inducing upon a segment of a limb the cataleptiform condition during the phase of lethargy. For this purpose it is sufficient to gently knead the surface of this portion of the limb to obtain in place of a localized contraction a sort of general stiffness which allows this part of the limb to preserve any position in which it is placed. It is then that on attempting to vary the positions of the limb the true *flexibilitas* is observed, or rather the rigidity of the lay-figures of painters.

It seems, then, that this form of the cataleptic state is chiefly due to a slight degree of neuro-muscular hyperexcitability, developed by

manipulations ; for it suffices to employ frictions upon the limb to remove all rigidity, and at the same time all appearance of catalepsy (No. 9, p. 318).

The seventh number of Vol. iii, contains an interesting paper by Dr. H. Blaise on pachydermic cachexy, *i.e.*, myxœdema, and records a case of myxœdema with mental alienation. He first, however, passes in review the observations of Sir Wm. Gull (on a Cretinoid State Supervening in Adult Life in Women, " Clin. Soc. of Lond.", Vol. vii). Dr. Ord, in 1877 (on Myxœdema, " Medico. Chir. Trans.", Vol. lxi, and " Brit. Med. Jour," May, 1878), M. Olive in 1879 (Sur le Myxœdème, " Arch. Gén. de Med." i, p. 677), Dr. Savage (in this Journal. Jan., 1880), Dr. Goodhart, in 1880 (Cretinism Sporadic and Myxœdema, " Med. T. and G." May 1, 1880), Dr. Hadden, in 1880 (on Myxœdème, " Progrés Medical," Nos. 30 and 31, 1880), MM. Ballet, and Thaon. Bourneville and d'Olier published a case of Myxœdema with Cretinism and Idiocy ("Progrés Med. 20 août, 1880), in a youth of 19. Dr. Inglis contributed two cases of Myxœdema in the " Lancet," Vol. ii, 1880, and Dr. Dyce Duckworth two more in the same Journal, Vol. ii, 1880. Hammond published a case in the " Neurological Contributions," Vol. 1st, 1881. Lastly, Charcot gave a clinical lecture on Myxœdema, which appeared in the " Gazette Médicale of Paris," No. 51, 1880.

The case detailed by M. Blaise, and which occurred in the service of Professor Grasset, Montpellier, in 1880, was that of a woman aged 34. She had always been very stout since menstruation at 11, and about 21 the affection commenced. Her character, which was boisterous up to 12, changed and became gentle. She led an active life up to her majority. Her intelligence appeared lively and her speech was exceedingly rapid. Up to 27 she presented the same appearance. Then different parts of her body, or rather the integuments progressively increased in size, while she experienced strange sensations, pins and needles, cold, heat, &c. She had frequent headaches, and pain in the malar bones. Her character altered, she became restless ; the speech slow, thick, and with a peculiar *timbre*. This vocal change was associated with a certain slowness in the ideas, and rapid intellectual fatigue. First the taste, and soon after the smell and hearing became affected. She entered the Montpellier Asylum January, 1878. At first her judgment rectified the errors of sense, but by degrees she began to believe in her illusions and hallucinations, and she addressed people in the street whom she fancied insulted her. At last she fancied she wore a mask, and that her head was transformed into the head of a dog. Ideas of persecution supervened. The cutaneous swelling also progressed to a frightful extent. It became difficult to close the mouth, and the voice was strongly nasal. The swelling, however, at last receded, and simultaneously the mental condition improved, her hallucinations and delusions vanished, and she was discharged in October, 1880. She had been treated with iron, quinine, iodide of potassium and sulphur baths.

M. Blaise thinks this case supports Dr. Ord's view of the nature of

the malady. It shows a complete subordination of the nervous disorder to the cutaneous affection. The former develop in proportion to the myxœdema. Subsequently the two progressively improve. As to the nosology of myxœdema, Professor Grasset thinks that it should be placed side by side with the sclerodermata, or rather the œdematous sclerodermata. "In them, as in myxœdema, the chief lesion is in the subcutaneous conjunctive tissue; it only differs in the nature of the œdema. In both the skin presents changes; hardness, desquamation at various places, peculiar colour, anæsthesia, fall of temperature, diminution of the sebaceous and sudoriferous secretions. Lastly, in schlerodorm there has been observed, as in myxœdema, hallucinations and mental disturbance, advancing to actual insanity." (No. 8, p. 158).

Two curious papers on witchcraft under the title of "Le Sabbat," are contributed in the seventh and eighth numbers by Bourneville and Teinturier, and illustrated by a number of woodcuts representing the flights of witches and the metamorphoses of the Evil One. These papers are written in mediæval French, but no explanation is given of their date or authorship. We are left to conclude that the above authors have betaken themselves to writing old French, until the origin of these documents is explained.

L'Encéphale.—Professor Ball contributed to No. 1, 1881, of the above journal a paper on a very important condition of mental disorder, one which is by no means rare, and yet one in respect to which we employ no uniform term. "Impulsions intellectuels" express this morbid mental state in French, and the Germans might comprise it under the expressive term "zwangsvorstellungen." But we are not accustomed to speak of intellectual impulses or irresistible thoughts, and we rarely talk of imperative ideas. Were we to say involuntary thoughts, it might be urged that our thoughts usually are so. What is the difference between involuntary thoughts about doing something pleasant and good, and something disagreeable and bad—*quoad* their involuntariness? None whatever. Their morbidness is determined by their character and irresistibility, not their spontaneity. Irresistible morbid thoughts, or if they take the form of prompting, irresistible morbid suggestions appear best to convey the nature of the disorder. A man at church is disturbed by blasphemous expressions and thoughts arising in his mind wholly against his customary habit of thought, and greatly to his amazement and horror. They are at once morbid and irresistible. The next day they may in the same person take the form of suggestions to murder his children. Had the form they assumed been that of conferring some good on his children, they would have been customary and normal, even if involuntary, so long as not irresistible. But their character determines them to be the result of disease. They are morbid suggestions, and may become rapidly irresistible. They may assume a more or less imperative character. We perfer the term irresistible thoughts or suggestions to Professor Ball's intellectual impulses. Whatever term we employ, however, the

fact remains indisputable that men may labour, not under delusions, but irresistible thoughts, suggestions, and words, from which they recoil with disgust or abhorrence, and of the unnatural character of which they are only too conscious, although they are in the habit of attributing them to an evil power instead of a disordered brain. In fact, obsession might, rightly understood, be a synonym. Some cases which are classed under moral insanity are of this description, and it would, in truth, be no easy matter to distinguish in certain instances between intellectual impulses, or as Professor Ball also calls them, "impulsions morbides," and irresistible impulses, and he points out that they may manifest themselves by acts. What are called irresistible impulses are not, however, what the Professor has in view in this paper. They constitute a very painful form of mental disorder, as every alienist will admit. In his experience such cases have not improved, but the morbid thoughts have become more and more tyrannical, while, on the other hand, the patients have not passed into dementia nor indeed into other forms of insanity, and they have retained a consciousness of their abnormal intellectual condition.

Professor Ball, among other articles contributed to this journal, has one on "cerebral torpor." The cases which are recorded exhibit a general suspension of the intellectual powers, especially the memory, attention, and interest in former pursuits, and the conclusions are thus summarised by the author.

1. As a consequence of very different causes, there may be developed, in certain persons, a peculiar state of torpidity of thought, to which we propose to give the name of *cerebral torper*.

2. The evolution of this morbid condition is essentially slow, and may extend over several months or even years.

3. Cerebral torper differs absolutely from hypemania by the absence of delusions and hallucinations, by the rectitude of the judgment and the preservation of physical health.

4. It differs from reasoning hypemania by the slowness and difficulty of the intellectual operations and vacuity of mind.

5. It differs essentially from an analogous state which often marks the onset of general paralysis and certain grave forms of insanity, and presents an almost always unfavourable prognosis.

In short, in the great majority of cases, cerebral torper is cured after a certain time, although the Professor adds that the intellectual range of the patient is frequently in favour to what it was before the attack.

Under the title of "La pathologie dans l'histoire," M. Jules Soury has prepared several articles of interest, having referrence to the fames of Augustus, to Martin Luther, &c. They contain much valuable matter. (*Vide* Vol. 1, Nos. 3 and 4).

We would, in reference to the comments by Professor Ball on the case of Lefroy, venture to hope that the article in the "Journal of Mental Science" upon this assassin, which appeared a month later than the number of "L'Encéphale" we refer to, may be considered as

a reply. It is notorious that, in this case, the plea of insanity was regarded by the defence as so weak before and at the time of the trial after obtaining medical opinions, that it was not ventured upon. The prisoner would have been only too glad to escape on this plea, had not he and his counsel been aware that it was untenable. In the case of Lamson, also, to which Professor Ball refers, and regrets that he had not been consigned to an asylum, we have reason to know that the Home Secretary was assisted by a mental expert in carefully examining the mass of papers that were sent in to him with a view of proving the convict's insanity. It is satisfactory to be able to add that the wretched man, unaware of the efforts made on his behalf, made a full confession of his heinous crime, and admitted the justice of his fate. We were lately in a city where we learnt that the sheriff had received a letter from Marwood during the assizes offering his services in the event of an execution being required, adding as a recommendation that he had hitherto been successful in giving satisfaction "to all parties." We certainly thought this open to question as regards one of the individuals concerned. In the case of the miserable Lamson, however, it may have been correct, and as he himself, as well as law and medicine, considered that he was most justly punished for his cowardly and atrocious crime, we do not think that any hesitation need be experienced or regret entertained as to the punishment he suffered.

M. Luys has an article "On the danger of premature discharges of suicidal patients" (No. 4). When this is likely to occur from the action of friends anxious to liberate the patient, M. Luys recommends a commission of competent physicians be empowered to decide whether a discharge is safe.

The writer, after enumerating several painful examples, concludes with observing :—

"Each of us, in proportion as inquiries are directed to the point, will be able to swell the list of suicides which I now commence, and add a new name to this long martyrology of unhappy suicidal patients who have been left too soon to themselves, and who, for want of care and practical knowledge, have been doomed to a fate from which they might have been saved."

He then maintains than an asylum conducted on modern principles is the right place for suicidal lunatics in order to protect them from themselves. M. Luys ought to have given us the number of suicides committed in asylums in France. We suppose that as in England they sometimes occur even in "les asiles modernes."

"Insanity in certain determined cases, may be regarded as a cause for divorce." Such is the proposition supported by M. Luys in the discourse delivered before the Academy of Medicine in Paris, and published in the second volume of "L'Encéphale," No. 2. It is a rejoinder to an address delivered before the same assembly by M. Blanche.

In replying to M. Blanche's principal argument against divorce, namely, that a supposed incurable patient occasionally recovers, M.

Luys gives an alarming catalogue of the changes the brain of a chronic lunatic undergoes, and adds, "It is thus dementia arrives by degrees in consequence of chronic lesions, and one is thus obliged to conclude that a human brain, at least in our age, and in the midst of Parisian life, is incapable of resisting more than for four or five years the destruction effected in its tissue by the various disorders of the circulation which interfere with its regular nutrition." After speaking of the certain course of general paralysis, M. Luys proceeds to observe that other forms, hallucinations, lypemania, mania, and hysteria, once the disease has taken possession of the land, upset everything, and dig their fatal furrows. In spite of resistance, the enemy is not dislodged, and the result is always the wearing out of the brain, and incurable dementia. If any lunatic has been four or five years under observation, a physician may always, in the opinion of M. Luys, decide upon the future course of his malady, whether incurable or not, so as the law could determine the question of divorce. To the picture drawn by M. Blanche of the pitiable condition of a recovered lunatic returning, like Enoch Arden, to his home, to find it no longer his, but another's, M. Luys replies that this is a sentimental argument, and would be very touching if true. "This is evidently a creation (on the part of M. Blanche) for the purpose of acting on the feelings, but one which in practical life cannot be realized." He then endeavours to draw another picture, that of the family which is hopelessly tied to a lunatic. "In the name of indissolubility of the conjugal tie, in the name of a false medical opinion as to the period at which dementia occurs in insanity, you condemn a healthy person, in the prime of life, to be bound to a decayed being, who has lost the noblest part of himself, to, in short, a true living death."

When a case has lasted a year or two, it seems long to the sane husband, who begins to ask the doctor when the situation will end, and the work of destruction be accomplished. It is "the psychological moment" when he begins to consider his needs. If he is young and well, and has the courage to recommence life, he does so when occasion offers. It is thus a new family arises by the natural course of human passions. It may be illegal, but it is "fatale et necessaire." M. Luys admits there are instances in which, indeed, to the very last the husband has cared for his insane wife with a solicitude "digne de tous les éloges." Well, we say, is it not the duty of the physician and moralist to support a line of conduct which is worthy of all praise, rather than favour the course of human passion, which, with such examples before us, is shown to be the reverse of fatally necessary?

M. Luys proceeds to propose the formation of a commission of arbitration composed of three alienists attached to asylums, who should examine the lunatic in question once a month for a year, and decide upon his or her incurability. If decided in the affirmative, divorce should be permitted, full guarantees being obtained as to the maintenance of the patient.

Our distinguished *confrére* argues ably in favour of his proposition, but we confess we think M. Blanche has the best of the argument. One very important point against divorce is that, however satisfactorily the financial matter may be settled, the patient would no longer leave husband or wife as the case might be, to look after his or her proper care and comfort. This is or ought to be the life-long duty of the consort who remains sane ; a painful and self-denying one, no doubt, but still a solicitude "digne de tous les éloges."

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2. *German Retrospect.*

By W. W. Ireland, M.D.

(Analysis of Goltz's Work, continued from p. 290).*

When the spinal cord of a dog is cut through, the hind legs, bladder, rectum, and erectile power seems to be quite paralysed, and on tickling the skin of the paralyzed posterior extremity of the dog's body, no reaction follows. This led to the conclusion that the centres for the motions of the bladder, rectum, &c., were situated in the brain. In reality these centres had their seat in the dorsal portion of the spinal cord. Owing to the section of that organ the functions of the parts below were suspended ; but after some weeks the inhibited functions again returned. One must, therefore, be very careful in distinguishing the phenomena of inhibition from the residual effects of a vivisection. If one, he observes, pinches the left hind foot of a dog which has just suffered the loss of a portion of the right hemisphere, the animal shows no sign of pain ; but neither does he show any trace of other reflex action. If one makes the same experiment with an animal whose spinal cord has been cut through several months before, he draws back the pinched paw very promptly. The centre for this reflex action lies in the dorsal part of the cord. But why does this reflex fail with the dog which has the spinal cord uninjured, but a fresh wound in the brain? Clearly because the reflex centre on the right side of the cord has suffered inhibition from the fresh wound given to the left hemisphere of the brain.

Goltz believes that any part of the nervous system may suffer inhibition after a lesion of the cerebrum. He does not make it so clear what are the parts which actually do suffer in the cases in point. He, however, mentions that in the first place after a wound, the remainder of the brain is in danger of being inhibited more or less. The cerebellum and cerebral ganglia are also in danger of having their activity suspended. It is likely that Dr. Goltz's adversaries may

* "Ueber die Verrichtungen des Grosshirns." Bonn, 1881.

consider that he should be somewhat more explicit on these points. We should especially like to know what so distinguished a neurologist believes to be the function of the cerebellum.

Goltz gives no explanation of the definite muscular movements excited by the application of the electrode to certain zones in the hemispheres which have been used as evidence that the motor tract connected with the spinal cord extends as far as the median convolutions. It is undecided, he says, what portion of the brain is really stimulated. He asks why the grey matter of the frontal lobe is not excitable? Whatever function it has, we might expect to see this function in excited action. He points out the varying extent of the application of electricity in the excitable zone given by Hitzig and Ferrier. Why, he asks, do those who have tried extirpation of the so-called motor centres always choose the centre for the fore-paw? Why do they not give us a row of dogs in which one cannot move the tail, another the under jaw, a third the tongue, and a fourth the ears? Albertoni and Michieli have extirpated the centre for the movements of the under jaw and tongue without any result. Even after these so-called centres were destroyed on both sides, the dog was still able to bite, eat, and lick. Lussana and Lemoigne found no results after extirpation of certain motor centres. Richet, Luciani, and Tamburini have made similar observations.

Dupuy states that he has removed the grey matter of a whole hemisphere in a dog without any loss of muscular power. Dr. Svetlin, experimenting in Goltz's laboratory, found a loss of motor power in the fore and hind legs some hours after operation; but this disappeared in a few days after. The professor himself has found that he could not produce paralysis of one limb without the other limb on the same side being similarly affected. He has noticed that mechanical irritation of the parietal lobe is sometimes followed by convulsions on the opposite side of the body, and has ascertained that these convulsions do not take place unless the irritation is applied at least four millimetres deep. This confirms him in the idea that it is not the grey matter, but the underlying white substance, which is acted upon by the excitation of the electric current in Hitzig's experiments. Goltz makes himself merry at the manner in which physiologists have assumed that the extirpated centres may be shifted to some uninjured part. Chased by inexorable experiments from the whole surface of the hemisphere, the motor centres have had to take refuge in the corpora striata; and the visual centres have had to resort to their old haunts, the optic thalami and corpora quadrigemina. After removal of one hemisphere no marked injury to the intelligence is noticeable.

Having studied the effects of lesions on one side of the brain, Dr. Goltz takes up the consideration of vivisections of both hemispheres. In his experiments on this subject fifty-one dogs were sacrificed. The general result is that while a dog injured on one

side of the brain only shows symptoms on the opposite side of the body, the dog injured on both hemispheres shows the same symptoms on both sides, and if the portion of brain abstracted be considerable, the animal becomes idiotic or demented. No effect can be noticed after abstraction of a small portion of grey matter, but if the amount be considerable, as a general rule the loss of intelligence is in proportion to the mass of brain removed. The injury to vision slowly passing away, the loss of sensibility, and of muscular power slowly, but never quite disappearing, are now found on both sides. The dog is only capable of simple motions, such as walking or leaping. He is awkward in his motions, and no longer uses the fore paws to pull or catch, though in some cases, at least, this incapacity seems to have passed almost totally away.

The beast is stupid and dirty, and seems to have suffered a loss in the sense of taste, since it eats dog's flesh, which formerly it rejected with disgust. The sexual appetite is much diminished, and when the loss of brain substance is great it is totally wanting. The following is a graphic description of the mental condition of a dog which has remained alive after removal of portions of the cerebrum on both sides. He has a demented or half-witted appearance, as is at once suggested by the expression in the eyes. His motions are generally sluggish. He appears slower at determining to do anything. He stalks about like a machine in a comical way. If another dog stood in the way he would push under its belly, even if he has to bear the weight of the other animal, or he will rather stumble over a dog lying in the way than walk round it. Dogs which have lost a large portion of the brain scarcely ever run, but can make powerful bounds. Those which have lost a smaller portion of the brain are more lively, but very helpless when called upon to do any unaccustomed motion. Those which have lost much of the brain take a great deal of rest, and are roused with difficulty. After meals, though they are generally apathetic, they are, when persistently excited, subject to violent fits of rage, which soon subside. Animals so operated on were found to have lost the memory of things they had once learned, though they retained the capacity in diminished power of learning the same things over again.

Hitzig found that when a dog which has suffered from extirpation of the motor centres of the left hemisphere walks along the table, he is apt unheedingly to put the right foot over the ledge, and thus fall over. Goltz has made the same observation, though he considers it indifferent whether the grey matter removed be from the median gyri or from other parts of the hemispheres. The fact is capable of several explanations. Goltz experimented on the question by cutting a hole in the table, and thus making an artificial trap door which could be suddenly opened under the animal's foot. He found that where a portion of brain had been removed on the opposite side, the dog was much less ready to recover its balance and draw out the limb.

He thinks that this is owing to the diminished sensibility of the affected member. The animals suffering from lesions in the brain had a less correct idea of the situation of their bodies in space, or their relation to other objects. This is probably owing both to the diminished power of the senses and to the lessened power of the brain in drawing correct inferences from the sensory impressions transmitted to it.

In dogs injured in both sides of the brain, hearing was also impaired, though not extinguished. They could still exercise the sense of taste, and smell, but ate substances such as dog's flesh, which they would previously have rejected, and endured the smell of chloroform, and other drugs which are very disagreeable to dogs in their normal condition.

Goltz especially notes that dogs in such a situation have not one muscle of their body paralysed. The strength of the muscles is normal; they can stand, walk, run, and spring. Goltz is very emphatic and explicit in his assertions that his vivisections implicated on one occasion or other all these portions of the grey matter lying under the superficial vault of the cranium. Sometimes he found that the lesion, or disease resulting therefrom, had more or less implicated the corpora striata and optic thalami; but the corpora quadrigemina, the crura cerebri, the pons, and the cerebellum were unaffected. Thus, though Goltz does not entirely hold with Flourens that after removal of considerable portions of the hemispheres, the remaining portions could assume the whole functions of the uninjured organ, he totally rejects the allocation into sensory and motor zones of the cerebrum. Neither does he hold with the renowned French physiologist that in vivisection of the brain all the senses gradually disappear, as slice after slice is cut away, since he has found that the power of vision is more easily injured than that of hearing. Goltz found that the results following removal of the parietal lobes passed away more easily than those following removal of the gyri behind them, and that animals which have suffered the loss of the grey matter of the parietal lobes have a duller sensibility than those which have suffered a similar loss in the occipital lobes. After injury to the occipital lobes the loss of vision is more enduring. A dog which has lost the posterior portions of the cerebrum is more stupid than a dog which has lost a similar quantity on the frontal side. In another passage he writes: We must make the general acknowledgment that the anterior parts (vordere Quadranten) of the cortex cerebri have a more intimate connection with the movements of the body and with cutaneous sensibility than the posterior parts (hintere Quadranten). Nevertheless, he is disposed to think that this is owing to the conducting tracts in the centrum ovale being more liable to suffer injury after lesions of the anterior parts of the hemispheres. In studying the mental manifestations of dogs injured on both sides of the brain, there are sources of fallacy which it is not easy to elude.

We should have had more confidence in the author's analysis had the following passage occurred at the beginning of his first treatise, instead of at the end of the last one. "In studying the altered actions of animals whose brain has been injured, it has occurred to me that perhaps the chief failing which makes them incapable of apprehending the impressions of the senses, is want of attention. When we are disturbed, occurrences pass away without any trace on our consciousness, which must excite the senses in a lively manner. Though the organs of sense are busy in conveying impressions, we neither see, smell, hear, nor taste. The dogs artificially demented are perhaps reduced to this state of mental disturbance. They are not in a condition to exercise their attention so as to give a proper interpretation to the impressions of the senses. Dogs after extensive destruction of the cerebrum are not quite blind, they can still avoid obstacles placed in their way, aud turn towards the light. T. Stilling has shown that the deep origin of the optic tract in man can be traced to the pons Varolii, the medulla, and the spinal cord. It seems to me possible that the regulation of the movements of the body from the impressions on the retina may pass by this way."

To criticise Goltz's observations one would need to repeat his experiments, and even should their correctness be admitted without any qualification, there might be great dispute about the correct interpretation of the phenomena. It is to be hoped, in the interests of the martyrs of cerebral physiology, that definite results will be attained as quickly, and with as little suffering as possible.

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3. *Colonial Retrospect.*

By Frederick Needham, M.D., and D. Hack Tuke, M.D.

Annual Report of Asylums, New South Wales, by Dr. Manning, Inspector-General of the Insane. Report for 1881.

This report gives evidence of continued progress in the care and treatment of the insane in the Colony whose department of lunacy is presided over with so much ability by Dr. Manning.

The number of registered insane persons in New South Wales on the 31st December, 1880, was 2,099, and on the 31st December, 1881, 2,218, showing an increase of 119. This increase, however, although larger than that of any previous year, does not appear, according to this report, to be due to any largely increased production of insanity, but to the influence of a very low death-rate.

The proportion of insane persons to population was 1 in every 352, which is almost identical with that in England.

The following tables are interesting for comparison with similar tables in English asylums :—(See next page).

TABLE I.

Showing the Admissions, Re-admissions, Discharges, and Deaths, with the Mean Annual Mortality, and the proportion of Recoveries, &c., per cent., in the Hospitals for the Insane, for the Years 1876 to 1881 inclusive.

Year.	Admitted.						Transferred from other hospitals, &c.			Discharged.						Transferred to other hospitals &c.			Escaped and not recaptured within 28 days.			Died.			Remaining in hospitals, 31 December in each year.			Average number resident.			Percentage of recoveries on admissions and re-admissions.			Percentage of patients relieved on admissions and re-admissions.			Percentage of deaths on average numbers resident.		
	Admitted for the first time.			Re-admitted						Recovered.			Relieved.																										
	M.	F.	Total.	M	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M.	F.	Total.	M	F.	Total.	M	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1876	182	111	293	33	27	60	101	12	113	88	70	158	17	19	36	100	45	145	...	...	...	78	29	107	1072	533	1065	1052	536	1588	40·90	57·72	44·75	7·90	13·76	10·19	7·41	5·41	6·73
1877	262	100	362	62	24	86	133	14	147	137	64	201	17	18	35	130	21	151	...	...	...	97	20	117	1147	548	1695	1130	529	1659	42·28	51·61	44·86	4·97	14·51	7·81	8·58	3·78	7·05
1878	212	126	338	40	38	78	112	36	148	108	46	154	17	20	37	113	45	158	...	...	...	99	28	127	1174	609	1783	1175	579	1754	42·85	28·05	37·01	6·75	12·19	8·89	8·42	4·83	7·24
1879	241	128	369	40	26	66	98	12	110	112	58	170	21	28	49	97	17	114	...	...	...	91	26	117	1232	646	1878	1188	620	1808	39·86	37·66	39·08	7·47	18·18	11·26	7·66	4·19	7·10
1880	267	145	412	28	30	58	42	24	66	133	63	196	21	19	40	40	35	75	3	...	3	96	40	136	1276	688	1964	1249	665	1914	45·08	36·00	41·70	7·11	10·85	8·51	7·68	6·01	7·10
1881	284	134	418	35	27	62	31	9	40	133	73	206	16	14	30	34	19	53	5	...	5	84	26	110	1354	726	2080	1314	700	2014	41·69	45·34	42·91	5·01	8·69	6·25	6·39	3·71	5·46

TABLE II.

Showing the Causes of Insanity, apparent or assigned, in the Admissions and Re-admissions in the Hospitals for the Insane during the Year 1881.

	Male.	Female.	Total.
MORAL—			
Domestic trouble (including loss of relatives and friends	5	11	16
Adverse circumstances, including business anxiety and pecuniary difficulties ...	10	1	11
Mental anxiety and "worry" (not included under above two heads), and over-work...	9	2	11
Religious excitement	8	6	14
Love affairs (including seduction)	...	2	2
Fright and nervous shock	...	2	2
Isolation...	9	2	11
Nostalgia	1	1	2
PHYSICAL—			
Intemperance in drink	44	10	54
Do. (sexual)	...	1	1
Venereal disease	1	...	1
Self-abuse (sexual)	8	...	8
Sunstroke	18	1	19
Accident or injury	6	...	6
Pregnancy	...	4	4
Parturition and the puerperal state ...	...	12	12
Lactation	...	3	3
Uterine and ovarian disorders	...	1	1
Puberty	...	3	3
Change of life	...	3	3
Fevers	1	2	3
Privation and over-work	19	...	19
Phthisis	...	2	2
Epilepsy...	22	7	29
Disease of skull and brain	3	1	4
Other bodily diseases and disorders, and chronic ill-health	12	8	20
Excess of opium	2	...	2
PREVIOUS ATTACKS	9	7	16
HEREDITARY INFLUENCE ASCERTAINED ...	20	19	39
CONGENITAL DEFECT ASCERTAINED... ...	16	8	24
OTHER ASCERTAINED CAUSES	5	9	14
UNKNOWN...	91	33	124
Total	319	161	480

The number admitted into hospitals for the insane in 1881 was 480, of whom 418 were admitted for the first time.

The proportion of admissions and re-admissions to the population of the Colony was 1 in 1,581 persons, as against 1 in 1,618 in the preceding year. The re-admissions were 12·55 per cent. of the total admissions.

The percentage of recoveries on admissions was 42·91, that of deaths on the average numbers resident, 5·46, which is very favourable ;

but it must be remembered that they apply to a mixed body of patients, and not to those exclusively of the pauper class.

The amount of accommodation for the insane in the Colony appears to be inadequate to the demands upon it.

Dr. Manning reports that, although additional buildings have been erected during the year for 164 patients, there are still 282 in asylums in excess of the number for whom there is room. As he pertinently remarks, "With the population of the Colony increasing at the rate of about 40,000 per annum, and with the experience of many former years that three out of every 1,000 of the population will be insane and require hospital care and treatment, it is impossible to ignore the need for further provision for this unfortunate and expensive class."

The following quotations indicate blots on the lunacy system of the Colony, which, it is to be hoped, will shortly disappear under Dr. Manning's advice :—

"The practice of examining insane persons in open court, to which I adverted in a former report, appears to have been somewhat less resorted to than formerly, but some painful scenes resulting from this practice have been made the subject of newspaper comment during the year, and it is clearly advisable that the examination should be conducted in such a manner as to avoid, as far as possible, the unnecessary excitement or exposure of persons who are the subjects of a distressing malady, and who, though under the cognisance of the law, are guilty of no offence."

"In the country districts there is not at present, and in many places there cannot be for years to come, any other refuge for the insane than the prisons, and in most of those which I have had an opportunity of visiting the arrangements are but ill-adapted for the treatment of insane persons in what—with regard to their recovery—is the most precious time of their illness. The Lunacy Act limits the stay of insane persons in prisons to 14 days, and this period is not now exceeded except in cases of mental or bodily illness unfitting the patient for journey to hospital."

With reference to epileptics and general paralytics, the following interesting particulars and table are given :—

"The English Commissioners in Lunacy have for several years past given returns showing the number of epileptics and general paralytics admitted into English institutions for the insane, and the annexed return is not without interest by way of comparison.

"General paralysis is a well-known and frequently-seen form of disease, but in this Colony it does not bear so large a proportion to the total number of admissions as in England, being 4·37 per cent. in this Colony against 7·3 in England.

"The proportion of epileptics is also somewhat less than in England. General paralysis has been seen in this Colony in natives of all the more prominent European countries, as well as in those of Colonial birth ; but only one case, and that not well marked, has, so

far as I am aware, been seen among the Chinese patients, and it has not been noticed in South Sea Islanders, Australian Aborigines, or other dark races."

Total number of Patients admitted during 1881.			Country.	Of the total number of Patients admitted during the year 1880.						Proportion per cent. to total number of Patients admitted.					
				Number of Epileptics.			Number of General Paralytics.			Epileptics.			General Paralytics.		
M.	F.	T.		M	F	T	M	F	T	M	F	T	M	F	T
			England	5	2	7	6	1	7						
			Scotland	1	1	2	2	...	2						
			Ireland	2	1	3	4	1	5						
			New South Wales	8	6	14	2	...	2						
			Other Colonies	...	...	...	1	...	1						
19	161	*480	France	...	...	...	...	...	...	5·64	6·21	5·83	5·64	1·86	4·73
			Germany	1	...	1	2	1	3						
			Sweden, Norway, and Denmark	...	...	...	1	...	1						
			Italy	...	...	...	...	...	...						
			China	1	...	1	...	...	...						
				18	10	28	18	3	21						

Dr. Manning makes a series of wise and suggestive remarks upon the qualifications and salaries of Superintendents of Asylums which it would be well for English guardians of the poor, and prospective candidates for seats on county boards, to lay seriously to heart:—

"The resignation of their appointments by two of the Medical Officers of the Department induces me to again express my opinion that the salaries attached to the office of Medical Superintendent in the Institutions for the Insane in this Colony are inadequate to the importance of the position, and are neither a sufficient remuneration for the duties performed, nor an inducement to capable junior officers to continue their connection with the Department in the hope of attaining to the position.

"The success of every Institution for the Insane in a curative, and, in a financial point of view, as well as the estimation in which it is

* The total number admitted and re-admitted in all Institutions for the Insane, except the Licensed House at Cook's River.

held by the public, must depend on the special fitness of the Medical Superintendent at its head and responsible for its management. The more I see of Hospitals for the Insane the more convinced I am that successful hospital management is in a large degree personal, that confidence is given to or withheld from the hospital physician, just as it is with the physician in ordinary practice, and that the same qualities which ensure success in private are necessary in hospital work. A rare union of medical attainments, administrative ability, tact, and zeal are required, and no amount of external inspection or control can supplement defects in this direction.

"The scientific medical treatment of the patients is an essential of success. On the spirit in which an hospital physician carries on his work will depend his moral influence, and this will leaven the whole establishment. The comfort and happiness of the patients which tend so much to their recovery, depend largely on his individual knowledge of and sympathy for them. No fixed rules, be they ever so carefully drawn or so justly adhered to, no discipline, however exact, will serve instead of personal zeal and tact; and in the same way no fixed dietaries, no examination of accounts or stores, will be of full use unless the Superintendent possesses administrative ability, and an earnest desire to check waste and extravagance, and to produce the best results at the lowest cost. It is to the interest of the public that the salaries attached to these important appointments should be such as to attract men in the prime of life and health, and with such ability as would insure them a good income in private practice, and to induce those who have entered the service of the Department as junior officers to continue therein in view of promotion."

The average weekly cost of the patients in asylums throughout the Colony during 1881 seems to have been 11s. 10½d. per head.

In concluding our necessarily brief review of Dr. Manning's able report, which affords conclusive evidence that the supervision of the insane in New South Wales is in excellent hands, it may be interesting, as bearing upon a question upon which there has been much difference of opinion in the mother country, to give his conclusions respecting the increase of insanity in the colony, and its relation to that of the population.

"The following short return shows the population of New South Wales, the number of registered insane, and the proportion of insane to the population on December 31st, 1861, 1871, and 1881 :—

	Population.			Nunber of Insane.			Proportion per 1,000.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
31st December, 1861.....	202,099	156,179	358,278	533	207	840	2·63	1·32	2·34
Do. 1871.....	248,150	235,013	519,163	879	508	1,387	3·09	2·16	2·67
Do. 1881.....	429,278	351,987	781,265	1,360	858	2,218	3·17	2·44	2·84

"From these figures it appears that whilst the population has in twenty years increased 118 per cent., the number of registered insane has increased 164 per cent., and the proportion of insane has risen from 2·34 per 1,000, or 1 in 426, to 2·84 per 1,000, or 1 in 352.

"Taking the decennial periods, it will be seen that from 1861 to 1871 the increase of population was 45 per cent., and of insane persons 65 per cent., the proportion of insane to population rising from 2·34 to 2·67 per thousand, whilst from 1871 to 1881 the increase of population was 50 per cent., and of the insane 59 per cent., the proportion of insane to population rising only from 2·67 to 2·84 per thousand. A considerable part of this increase is due—

"1st. To the accumulation of chronic cases, the deaths and discharges of each year not being equal in number to the admissions. This accumulation occurs more rapidly in Australia than in Great Britain, owing to the milder climate, which tends to prolong the lives of asylum inmates, and produces a very low death-rate.

"2nd. To the establishment of a special Institution for idiot children at Newcastle, to which idiot and imbecile persons formerly kept at home, or in benevolent or other institutions, have been sent. Since 1871, when this Institution was opened, the number of registered idiotic and imbecile patients has exactly doubled, whilst, as before stated, the population has only increased 50 per cent. It cannot be supposed that there has been this enormous increase of idiocy. The patients existed, but were otherwise provided for, and were not numbered with the insane. On one occasion 18 patients were sent at once from the Benevolent Institution, Sydney, where some of them had long resided, and—

"3rd. To an alteration in the standard of what constitutes insanity. There has arisen during late years a less degree of toleration on the part of the public for the vagaries of crazy and insane persons, and the teachings of modern science that insanity is a disease of the brain, has tended towards the classification of all diseases of the brain interfering with its functions under the broad heading of insanity and the relegation of the sufferers to special hospitals for treatment.

"But whilst admitting that these and other causes account for a large part of the increase in the number of registered insane persons, the statistics of this Colony would seem to point to the fact that there is some real increase in the amount of 'occurring insanity.' The rate of this increase appears, however, to be slowly declining, and was very decidedly less from 1871 to 1881 than during the previous decennial period."

(F. N.)

Lunatic Asylums of the Colony of New Zealand. Report for 1881. *Presented to both Houses of the General Assembly*, 1882.

In consequence of the death of Dr. Skae this Report is submitted by Mr. Loveday, the office clerk, to the Colonial Secretary, and consists of communications from the Deputy-Inspectors and Superintendents of the Asylums in the Colony.

In Deputy-Inspector Mackay's report on the Asylum at Wellington, he strongly condemns the state of the wards for the worst patients, for which, however, it is added in a foot note, that a sum has been placed on the estimates. It is not surprising that under such conditions mechanical restraint is requisite. The two paragraphs should be read in connection.

"Though attention has been so repeatedly and so urgently drawn to the state of the back wards for dangerous male and female patients, I consider it my duty once more to impress upon the Government the necessity of immediate action in that part of the asylum. These wards have been so frequently condemned by experts and others as utterly unfit for the purpose for which they are intended, that I do hope no time will be lost in replacing them by buildings fit to be inhabited by human beings.

"In the male back ward two patients, subject to very violent fits of insanity, and, when the fit is on them, exceedingly dangerous, are under a mild form of restraint. Their outer clothing is a canvas combination garment, canvas being the only material they will not destroy. A canvas strap connects the trousers at the ankles, the two side straps limit the motions of the arms. The technical name for such a dress is, I believe, a camisole. These patients, when excited, are apt to use teeth, fists, and feet in assaulting other patients and the attendants. When out of their rooms they require to be carefully watched ; in fact, a warder is constantly on guard over the more violent of the two, and two men are required to give him exercise in the yard, and to move him from room to room. Under these circumstances the mild form of restraint adopted is, I consider, highly necessary and perfectly justifiable."

Dr. Hacon, Medical Superintendent of the Christchurch Asylum, remarks on the steady increase of admissions, partly due to re-admissions. The asylum was built for 150 males, and already there are 175.

The following remarks are made on the admission of inebriates :—

"It is a great mistake to admit inebriates into a lunatic asylum, not only because it is not the proper place for them, and their idle life sets a bad example to the lunatics, but also because it may expose their children to the imputation of hereditary insanity should it ever become known that the parent has been an inmate of the asylum. To the man determined to reform, the sight of so many brains wrecked from drink should have a salutary effect, but the excuse that detention in an asylum is likely to drive the inebriate mad is always brought

forward as a reason for early release. There is no doubt, therefore, that a special institution should at once be erected for inebriates at some distance from the asylum. I wish to state that all inebriates coming under my charge, in order to try and recover that moral tone, and get rid of the morbid craving for drink, are not allowed to have any stimulants, except when necessary as a medicine; and I am not in the least afraid, after my experience in both hospitals and asylums, of taking a man 'right away' from the drink, but on the other hand am assured that he suffers less thereby."

There appears to be no fear of the staff of this institution suffering from the monotony which is sometimes supposed to be a fault in these quiet days of asylum life. What follows is lively reading, and the condition of things it represents must be still more so:—

"Without doubt the greater liberty allowed in the presence of attendants has been of the greatest service in promoting health and tranquillity. The officers and attendants of the institution have been bitten, kicked, and struck, and the matron received a blow on the head from a violent female. The worst and most troublesome case (who has been discharged, recovered) was that of a man who boasted with great glee that he had been in the Yarra Bend and Nelson Asylums; he was, at his best, a wild Irishman, and took the greatest delight, while insane, in all kinds of devilment and mischief. On one occasion he had to be rescued at great risk from an old wooden cell, the flooring of which he had broken up, jamming the door, and assaulting the officers and attendants with sticks and stones, and, when captured, biting like a monkey. You were pleased to specially reward the attendants who effected his release from the broken timbers amidst a shower of stones, &c."

If the "insane ear" were always, or frequently, the result of blows, one would have expected to find it here in excess. On the contrary, however, it is unknown. Those who hold this doctrine ought to explain this fact.

Dr. Hacon writes:—

"As far as medical treatment is concerned, my experience here has fully confirmed my opinion that early treatment in mental disease is most important, and that constant and special attention during the first month is of more use than any amount of after treatment, when the disease has advanced.

"The subsidence of goitrous tumours, the improved appearance and behaviour of many patients, the tranquillity and contentment, the almost total absence of the 'insane ear' (*hæmatoma auris*), the prolongation of the intervals between the paroxysms of the chronic patients and between the occurrence of fits in the epileptics, all show the efficacy of treatment which can only be properly directed by a physician conversant with the insane and their peculiarities; and some of the recoveries have impressed me, once again, that, when all seems lost, a great deal may be gained by continued perseverance in the administration of remedies."

We are glad to put on record the testimony borne by Dr. Hacon to the late Dr. Skae, and we take the opportunity of wishing the success of his successor, Dr. Grabham, which his qualifications for the past certainly merits :—

" With the deepest respect and grief I wish to refer to the death of my late Inspector, Dr. Skae, whose well-known reputation and ability attracted me to remain in the colony and work under him. While he lived, his kindly, sound, and practical advice was of the utmost service to me, and on his last visit of inspection here he took the greatest interest in every particular, pointing out to me any defects which he noticed in my administration in a firm but conciliatory manner. His presence was a stimulus for ' better things ' beyond the daily routine work—for higher aims and motives."

For the total asylums in New Zealand, seven in number, we subjoin the most important of the tables which are given in this Report. The recoveries and the mortality are satisfactory, but, as regard the high rate of the former in some of the asylums, the number of inebriates admitted swells the proportion. While much remains to be done in the Colony, it is clear that there is much that deserves great credit. More systematic local inspection is desirable—something more than merely nominal appointment.

TABLE I.

Showing the Admissions, Re-admissions, Discharges, and Deaths in Asylums during the Year 1881.

	M.	F.	T.	M.	F.	T.
In asylums 1st January, 1881		...		728	395	1,123
Admitted for the first time	188	104	292	232	127	359
Re-admitted	44	23	67			
Total under care during the year ...		...		960	522	1,482
Discharged and removed						
Recovered	93	65	158	191	116	307
Relieved	41	36	77			
Not improved	8	1	9			
Died	49	14	63			
Remaining in asylums 31st December, 1881		...		769	406	1,175
Increase over 31st December, 1880 ...		...		40	10	50
Average number resident during the year		...		747	388	1,135

TABLE II.

Admissions, Discharges, and Deaths, with the Mean Annual Mortality and Proportion of Recoveries, &c., per Cent. on the Admission, &c., during the Year 1881.

Asylums.	Average Number Resident during the Year.			Percentage of Recoveries on Admissions during the Year.			Percentage of Deaths on Average Number Resident during the Year.			Percentage of Deaths on Number under Care.			Percentage of Deaths on Admissions.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Auckland	172	75	247	44·89	48·27	46·15	9·30	8·00	8·90	7·26	5·55	6·66	32·65	20·68	28·20
Napier	13	7	20	33·33	100·00	50·00	7·69	0·00	5·00	5·25	0·00	4·16	33·33	0·00	25·00
Wellington	80	56	136	45·45	66·66	52·94	6·25	1·78	4·41	4·71	1·40	3·38	22·72	8·33	17·64
Nelson	38	29	67	8·33	100·00	31·25	2·63	10·34	5·97	2·22	8·56	5·00	8·33	75·00	25·00
Hokitika	51	23	74	46·15	40·00	43·40	3·92	0·00	2·70	3·12	0·00	2·08	15·37	0·00	4·34
Christchurch	173	92	265	51·61	55·17	52·74	4·04	1·08	3·01	3·11	0·81	2·30	11·29	3·44	8·79
Dunedin	220	106	326	29·57	42·85	34·51	7·72	2·83	6·13	6·02	2·05	4·67	23·94	7·14	17·69
Totals...	747	388	1,135	40·08	51·10	44·01	6·29	3·60	5·55	5·10	2·68	4·25	21·12	11·02	17·54

(D. H. T.)

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The usual Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital on Wednesday, the 8th November, 1882, at 8.30 p.m. In the unavoidable absence of the President, Professor Gairdner, the chair was occupied by Dr. D. Hack Tuke. There were also present :—Drs. J. O. Adams, A. J. Elliott, G. F. Blandford, David Bower, P. E. Campbell, C. S. W. Cobbold, W. Clement Daniel, Reginald Eager, H. Gramshaw, Richard Greene, W. R. Huggard, C. Mercier, W. J. Mickle, J. Murray Lindsay, T. W. McDowall, H. Hayes Newington, J. H. Paul, H. Rayner, G. H. Savage, Wilson Sayers, D. G. Thomson, F. H. Walmsley, L. Weatherley, E. S. Willett, S. W. D. Williams, &c.

David Rhys Jones, L.S.A., of the Joint Counties' Asylum, Carmarthen, was elected a Member of the Association.

Dr. Mercier submitted some photographs of a patient during the actual progress of an epileptiform attack, and Dr. Savage exhibited a collection of photographs of patients at Bethlem.

Dr. Savage exhibited a portion of the brain of a general paralytic, with echymoses on the surface of the cortex. He said that there was, perhaps, nothing very striking in this case, but he had on former occasions suggested the desirability of bringing up such specimens, and this one happened to present itself to him yesterday on the death of a patient. The case was one of general paralysis in which the symptoms had been melancholic throughout, and it was only after nine months' observation, and twenty-four hours before death, that he had decided that it was a case of general paralysis of the insane. After death, there was nothing particularly noteworthy observed, but just at the middle third of the first frontal convolution there was a spot about an inch square, bearing all the appearance of a contusion from a fall or an injury.

Dr. Mercier read a paper "On the Conditions of Life which Influence the Production of Insanity."

Dr. Savage said that no doubt some good would result if this subject were considered more methodically than they had considered it hitherto. He quite agreed with most of the points in the paper, but he should like to suggest one or two queries. For instance, was nostalgia the result of change of climate? He remembered a case of a young Swiss who was very anxious to learn good French, and was sent to Paris. Although he resided in the most healthy part of the city he soon sickened, and returned to Switzerland to die of nostalgia. Then as to sudden changes—these were in some cases most dangerous, but it was not every sudden shock which was injurious, and there were many cases where the continuous irritation had done the mischief, the continuous dropping had worn away the stone. As to complexity of work, there were distinctions to be made here. He could quote the case of a man engaged on the advertisement sheets of the *Times;* his work might be compared with that of a paviour, constant, exhausting, and monotonous. A cultivated man working in a highly organized way would have to give up work with the earlier symptoms of break-down, and the rest then enforced would be beneficial; but the same man engaged on less complex work would go on much longer, producing in the end more profound exhaustion. He could not, therefore, agree that complexity of work alone, any more than suddenness of shock alone, was necessarily incident to the outbreak of the insanity. As to self-made men, he would say that the man who bounded into wealth bounded into difficulty, but, just as joy alone rarely caused insanity, so success alone rarely produced it. At Bethlem they were constantly seeing men who broke down because they were self-made men; men who had gone as office boys, become solicitors' clerks, and so got on for a while until they could get no further, when the solitariness

of their position had acted detrimentally upon them, much in the same way as in the cases of governesses which had frequently been brought before them.

Dr. RAYNER said that the members ought to be much obliged to Dr. Mercier for his very interesting and suggestive paper. As regards suddenness of change, he considered that that should be estimated rather by the duration of the preceding state. A man who had been in a rather monotonous condition of life for many years previously, would be much more injuriously affected by a sudden change than a man who had not been in an unvarying state for any length of time. A journeyman carpenter, for instance, who had been such for several years, and was suddenly put into position of a very different character, might break down from the mere worry, and the same result might occur in the case of a man who, for a long period of time, had been in some trustworthy but junior position, and who was suddenly placed in charge of his associates.

Dr. ADAMS said that they probably broadly admitted everything which Dr. Mercier had told them, but having admitted it, how could they help it? They must keep those records for the sake of the Commissioners in Lunacy, and perhaps for the sake of the public, but he was afraid after all that it was of very little value, for they met with patients who were either already or very nearly insane, and in a great majority of cases, although they might advise the patients to do this and that, it was very rarely that the patients could take advantage of the advice. He felt very often in the position of the doctor who orders the pauper to live on nothing but champagne and chickens. He might meet a patient and tell him not to be anxious, but what was the use of that? The man must be anxious. If the man had cause for anxiety he must be so, and if he had no cause for it that was worse. A solicitor might come to him and consult him before he had actually broken down, and he might tell him to give up his work for some months; but then the solicitor has a wife and family to support, and that would mean that his work would go into other channels, and it would be bruited abroad that he was suffering from nerve disease. It seemed to him that there was a hopelessness, practically, in going further than was absolutely necessary into the causes of insanity.

Dr. BOWER said that he should like to add his thanks to Dr. Mercier for his paper. Contrary to the opinion last enunciated, he thought that it was of very great importance to get at the cause of the insanity. At the same time he would caution them against rushing too freely into causes. His professor used to say that etiology was a dangerous science. There were many instances of slow and monotonous work causing insanity. As regards the fallacy of rushing to conclusions, he might cite the case of a patient, then with him, who came about a year ago with a clean bill of health. His medical man gave the patient's insane history, and he (Dr. Bower) took it for granted that the case was one of syphilitic insanity. In travelling recently abroad, he had found out all about the patient's uncle and grandfather who had been insane, and of course this new information materially influenced his diagnosis. He might mention, too, that when he was in the north of Norway he saw some Laplanders, and the Medical Superintendent told him that the Laplanders were cured more readily than the Norwegians. It turned out to be that the Laplanders were sent into the Asylum immediately they were attacked, while the others were retained until they could not be kept any longer.

Dr. WEATHERLEY said that he did not hear Dr. Mercier mention family troubles, more especially unhappy marriages. He could quote two cases within the last fortnight arising from unhappy marriage. Another cause which was, in Saxony, supposed to be the cause of the numerous suicides there, was ambition or frustrated ambition.

Dr. HACK TUKE said that he felt sure that Dr. Mercier would be gratified with the way in which his paper had been received. It was a very able and interesting paper, and admitted of much discussion. He thought that the view which had been expressed by Dr. Adams was somewhat extreme. As regards the position of the superintendent of an asylum or any mental

physician, what Dr. Adams said was no doubt very much to the point, but that would not apply to social reformers—to those who endeavoured to improve the conditions by which men were surrounded. All the minor headings of Dr. Mercier's paper would fall under the three great headings of education, business, and habits, the latter mainly referring to drunkenness and dissipation. Of course, the question of the predisposition of the patient did not fall within Dr. Mercier's paper, but it could never be forgotten that the patient's mind would not be likely to be affected by the causes indicated, unless the patient was predisposed to that particular form of disease. A man might be constantly getting drunk, and yet if he were not predisposed he would not be likely to become insane, and the same might be said of overstudy or of business anxiety. So that, important as was the recognition and removal of the exciting causes of insanity, a man's predisposition to the disease was even more important to him, and if he had it, it was incumbent upon him to avoid an unfavourable condition of life.

Dr. MERCIER, in reply, said that much of that which at first sight seemed adverse to him, would, when further considered, be found to be entirely favourable. The only piece of really hostile criticism was on the question of nostalgia, and he thought that there they disagreed more about names than things. By climate he did not mean the meteorological conditions, but the whole of the *naturale*, which might be summed up in the word "country." In regard to the Swiss who was moved to Paris, there was no doubt, in a limited sense, that he did not change so very much, although it would seem that from a residence among mountains to a level plain and a large city there was a very marked change which had to be taken into consideration. They found that nostalgia was more prevalent among the inhabitants of low and flat, and moist countries, and it was those people, when moved to dry and more elevated countries who got nostalgia. Dr. Savage had mentioned the dangerousness, not only of sudden changes, but also of monotony. Both these—the change and the want of change—were external conditions, and should be taken into consideration. He was quite unprepared for Dr. Savage's suggestion that self-made men were more subject to insanity, and it must necessarily modify his views. Probably, however, self-made men might have passed through an extremely arduous time, working early and late. He agreed with Dr. Rayner that the deviation of the preceding state should be taken into account, but there, again, it was a component of the change. A man who had been in a monotonous state for a long time and then underwent a slight change, would find that change of greater moment to him than if his monotonous life had been of shorter duration. With regard to Dr. Adams's remarks as to their inability to help, it was not on that account that their enquiries were useless. They must know those conditions, and those who said it was of no use knowing the causes of insanity because they could not prevent them, might as well say that it was no use setting up a meteorological office and determining one's storms because we could not control them. True, but we might avoid them. As to heredity, that was somewhat outside the scope of his paper, which was upon the external conditions of life, but it was no doubt a subject of great importance. The influence of unhappy family life, mentioned by Dr. Weatherley, was also one of very important consideration. When Dr. Hack Tuke said that the predisposition was of more importance, because in the cases of certain people placed in the same conditions of life some became insane and some did not, they might on the other hand take people equally predisposed and yet one might become insane and the other not, and why? Because one might be in the conditions which produced insanity, and the other not.

Dr. HACK TUKE said that he did not wish to put it quite so strongly as Dr. Mercier had appeared to understand.

Dr. MICKLE then read a paper on "Traumatic General Paralysis" (*See* Clinical Notes and Cases).

Dr. SAVAGE asked whether Dr. Mickle could make any distinct statement as to the traumatic general paralysis being of one form more than another. Then,

also, one was in the habit of seeing many cases in which after injury there was great nervous instability, so that a very small amount of drink would produce great excitement. For instance, a man in war time had received a very severe injury to his head from a shell, and from that time a very small quantity of drink flew to his head and made him a madman, and if he still took more drink he had to be taken to an asylum until he settled down again. This also was a point on which he would like to hear Dr. Mickle's views.

Dr. COBBOLD remarked on the atheromatous disease of the arteries, sometimes associated with general paralysis.

Dr. BLANDFORD said that he had not had much experience in this matter. He had seen two cases where general paralysis had followed upon injury to the head, but he was under the impression that other forms of insanity or brain suffering more frequently followed injuries to the head than general paralysis, and it seemed to him to be rather questionable whether the first case that Dr. Mickle read to them should be called general paralysis of the insane, or should be called a case of cerebral disease following upon an injury.

Dr. RAYNER considered that there was no cause of insanity into which they should enquire more carefully than that ascribed to head injury. He had recently been shaving the heads of a large number of general paralytics, and had been struck with the large number of scars which the shaving had revealed. Scarcely one had not had more than one or two scars. Probably, general paralytics, being more than ordinarily active individuals, were liable to these injuries. Moreover, he supposed that there were very few people whose heads would not show one or two scars. There was no doubt that people did receive a very large number of blows without developing insanity. In the cases that Dr. Mickle had quoted, the general paralysis did not appear to be very closely associated with injury. In two cases which he (Dr. Rayner) published last year in the "Specialist," general paralysis followed immediately and directly after the injury. One was a man engaged in a very complex work in a dockyard. He was working up to the day of his injury, and he never worked for a day afterwards. In the other case a man was working in an iron foundry when a piece of iron, weighing seven pounds, fell upon his head, and he never worked again. In both these cases the occurrence of general paralysis after the injury was undoubted, but in both case he had come to the conclusion that the blow had simply developed a predisposition to general paralysis which existed in individuals, and he thought that this should always be very closely enquired into; whether people who have received injuries to the head and have general paralysis following after that, have not been before that strongly predisposed to the disease?

Dr. GRAMSHAW asked whether it did not sometimes happen that the injury would be latent for a certain time, afterwards developing this mischief. He recollected the case of a young man who was said to have had a fall from his horse, and who continued at college for several months after his injury, but gradually got so unable to attend to his studies that he came under his (Dr. Gramshaw's) care. The patient at first behaved pretty well, in fact, used to go out; but one day wandered off, causing great anxiety. When brought back he was confined to his bed, refused food, and became worse. Then he rallied, and subsequently came to Bethlem, where he ultimately got quite well. Upon enquiry it was found that the young man's father had committed suicide, and, therefore, there was predisposition to insanity, which seemed to be developed and increased by the injury he had received. The case seemed to suggest a lying latent.

Dr. MERCIER wished to put a little more definitely what was touched on by Dr. Rayner. It seemed to him (Dr. Mercier) that there was little connection between this and general paralysis. Injuries to the head were very common, and yet out of Dr. Mickle's vast experience he was only able to bring forward some score of cases in which the two had coincided. It would seem that if all the cases of general paralytics, and all those of people who had received injuries to their heads, were jumbled up in a box and drawn out at random, it would be very strange if, out of so many cases, a few did not coincide.

Dr. McDowall alluded to the fact, as had been pointed out by Dr. Brown, of Wakefield, that in general paralysis the occipital lobes and the tempero-sphencidal were never atrophied. Referring to the case quoted by Dr. Rayner, where a man who was injured had been engaged in delicate work, he said that Dr. Smith, of Durham, had mentioned to him the case of a patient who was the engineer of the "Flying Scotchman," and who drove the train from London to the North three days before he was admitted to the Durham County Asylum suffering from well-marked general paralysis.

Dr. Bower asked Dr. Mickle whether he had had any experience of surgical interference, and referred to a case in which a large cauldron had fallen upon a person's head. About three months afterwards, the person became epileptic and very confused in his ideas. Trepanning was suggested, but there was no bone to be raised, and simple pressure stopped the whole injury.

Dr. Hack Tuke asked what was the longest period which had elapsed between the injury to the head and the occurrence of the symptoms of general paralysis. Some time ago a man had a fall. His character altered from that time, and it was more than five years before symptoms of general paralysis supervened. When Dr. Tuke saw him after that he had very well-marked symptoms of general paralysis.

Dr. Mickle, in reply, said, as regards the first question asked him, that the cases he referred to usually took ordinary forms of general paralysis. Almost invariably there was severe cranial pain preceding the symptoms of mental disorder, and other symptoms which had to do with the special way in which the disease was produced. As to the question whether, in the cases of those who became general paralytics from cranial injury, the taking of a most moderate portion of spirits had an unusual effect, that, he thought, had been seen in all cases, but he could not say whether it had been noted in the particular cases read. As to atheromatous disease of the arteries, the presence of atheromatous patches in the arteries of the general paralytic was of common occurrence. As regards Dr. Blandford's question, undoubtedly the vast majority of the cases in which cranial injury was the cause of mental disease did not become general paralytic. There were some statistics bearing upon that point, in which about one-seventh of those cases had become general paralytics. He quite agreed with Dr. Rayner as to the injury simply developing in many—in fact in all cases—of previous predisposition. He quite agreed with the speaker who referred to the latency of the effects of the injury, especially as regards heredity. As regards Dr. Mercier's remarks, they found cases in which the relations between the injury and the disease were so precise that it seemed very difficult to reject it. In the case, for instance, of a young man from the army, whose friends distinctly declared that from the time that he had a severe fall his habits changed, he was incapacitated from work, and complained of mental confusion; if, in such a case as that, cranial injury was not the exciting cause of the mental disease, he did not know what the exciting cause of it could be. In the majority of cases the cause was predisposing, and it was only by taking a number of cases and applying to them the same rule as one applied in all cases of insanity, that we could come to the conclusion that one must admit cranial injury as the predisposing cause in some cases. He quite agreed that a great many people received cranial injury, and that we would expect to find cranial injury to a great extent among the insane, even if it was proved not to be a cause; but where we found a cranial injury in connection with which there was local disease of the brain, he thought we must admit that the cranial injury was the cause—that is to say, that which was connected with the cranial injury. Dr. McDowall had mentioned the interesting fact as to the non-atrophy of the occipital lobes and temporo-sphenoidal, both in regard to cases of general paralysis and other forms of brain disease. As to the surgical treatment of cases, the cases where general paralysis was produced by cranial injury which had come under his own care, had not been such as would lead to the supposition that surgical treatment would have been available for any useful purpose, but

there were frequently cases in which there was a depressed fracture or a considerable indentation on the surface of the brain on which trephining had had a remarkable effect, in some cases thereby leading to recovery. As to the question of time, suggested by Dr. Hack Tuke, some of the cases followed immediately; in other cases, where the injury was supposed to have been the predisposing cause, several years had elapsed.

Dr. HACK TUKE said that the thanks of the Association were due to Dr. Mickle for his interesting paper.

Owing to the lateness of the hour, a paper by Dr. Fletcher Beach on "Atrophy of the Brain—Imbecility," was ordered to be taken as read. (*See* Clinical Notes and Cases).

A Quarterly Meeting of the Medico-Psychological Association was held at the Royal College of Physicians, Edinburgh, on Wednesday, 1st November. There were present :—Drs. Howden (chairman), Clouston, Batty Tuke, Major, Philip, Carlyle Johnston, Rutherford, Mitchell, Cameron, Ireland, &c.

Dr. Ireland showed the skull of a genetous female imbecile, aged 19 years. She could dress herself, spoke on simple subjects, and had learned to read words of two syllables, and to do a little work. Her height was 65 inches, the girth round chest was 30 inches. There was a great deposit of subcutaneous fatty tissue. The encephalon weighed 42oz. In dissecting the brain nothing abnormal was noticed with the naked eye, save that the posterior cornua of the lateral ventricles were found wanting on both sides.

The following measurements were taken before removal of the scalp :—

1. Antero-posterior (from glabella to external occipital protuberance)	35 c
2. Circumference	52
3. Transverse (from tragus to tragus)	33½
Sum...	120½ c
4. From tragus to glabella	14½
5. From tragus to occipital protuberance	14½

On the naked skull the measurements were—

1. Antero posterior	32 c
2. Circumference...	50
3. From auditory meatus to meatus	28
Anterior diameter	18
Transverse from above	13½

The skull itself was thin and slender in make, somewhat small, and, generally speaking, of imperfect development. It was narrower in the frontal than in the parietal and occipital regions. About the meeting of the coronal and sagittal sutures the lines of apposition were much plainer than usual, the serrati or dentate arrangements being in none of the sutures so marked as in most crania. The sagittal and coronal sutures were still open. The foramen magnum was unusually small.

The wisdom teeth were wanting in the upper jaw, which was somewhat narrow, but not vaulted. Wisdom teeth present in the lower jaw. The outline was somewhat prognathous.

The heart weighed nine ounces, the muscular fibres were weak and flabby, and there were masses of fat under the lining both of the auricles and ventricles. The uterus was about the size of a big bean, the ovaries rudimentary ; the girl used to menstruate. The liver was yellow, approaching to cream colour. To the naked eye there was no trace of the usual lobular arrangement. The liver appeared but a mass of adipose tissue. There were effusions of blood under the skin and into the left lung.

Dr. CARLYLE JOHNSTON read "Notes of a Case of Brain Tumour."

In reply to the Chairman,

Dr. JOHNSTON stated that the tumour was freely movable, that it had a very slight attachment to the ependyma of the ventricle, and that there was no alteration in the skull.

Dr. MAJOR—In a case of brain tumour which recently came under my care, the prominent mental symptoms were dementia with great loss of memory, and hallucinations of sight and hearing, and perhaps, of other senses. There was also almost complete blindness from double optic neuritis, giddiness, vomiting, and finally paralysis of all the limbs. In this case there was very little doubt of the diagnosis, during life, and it was confirmed post-mortem. As far as my own experience goes, brain tumour in the insane is a very rare condition, and, on the other hand, all of us have probably seen cases of undoubted brain tumour without noticeable mental disturbance. It is remarkable how little (when of slow growth) these tumours seem to affect the mind.

The CHAIRMAN considered these tumours to be as frequent in the cerebral cases found in ordinary practice as amongst the insane. In the cases which had come under his notice, the chief symptoms had been dementia or stupor.

Dr. CLOUSTON had seen congestive attacks resembling those of general paralysis in cases of tumour of the brain. In his experience they were not so infrequent amongst the insane. He had met with three or four cases in about 1,000 post-mortems, and recently he had seen two cases within three months. A remarkable circumstance was the manner in which syphilitic tumours in the centre of the substance of the brain, and all quick growing irritating tumours, produced as it were a ring of softening all round them. He had seen a tumour the size of a hazel nut produce extensive softening, probably by starvation of the surrounding brain substance. On the other hand, as has been remarked, large slow growing tumours may occur in demented persons without producing prominent mental or physicial symptoms.

Dr. MAJOR—I should like to add, as bearing on Dr. Johnston's case, that, not long since, I assisted at the post-mortem examination of a boy who had had, as stated to me, symptoms in many respects like those detailed by Dr. Johnston, and in whose brain was subsequently found a hydatid cyst, occupying the fourth ventricle, and in close relation with its floor, as the only lesion.

Dr. IRELAND read a paper on "The Hallucinations of Joan of Arc." (*See* Original Articles.)

The CHAIRMAN said that he was sure the meeting had listened to Dr. Ireland with great delight, and he had much pleasure in proposing a vote of thanks to him for an essay which displayed such erudition and labour, also to Dr. Johnston for the interesting and suggestive form in which he had presented his case of brain tumour.

The members afterwards dined together at the Edinburgh Hotel.

A Meeting of the Parliamentary and Pensions Committee of the Association was held at 11, Chandos Street, on November 29th, 1882.

The resolutions relative to the Pensions passed at the annual meeting in 1877 were affirmed almost in their entirety.

The Committee also agreed it would be desirable that the Government grant of four shillings per week to each lunatic pauper should be paid to the Asylum Committees (instead of to the Unions), and that the first charge on the same should be the payment of salaries and wages of asylum officers and servants; the second the pensions and the repairs of the asylum buildings.

A Sub-Committee was appointed, and empowered to press these opinions on the attention of the responsible authorities, and also to address a letter on the subject to the First Lord of the Treasury with reference to the possible introduction of this change into the Government Bill said to be in preparation for next session.

THE STATISTICAL TABLES.

In view of the preparation of the Statistical Tables of the British asylums, we would call the attention of superintendents to the remarks made at the annual meeting at Glasgow by several speakers at the time they were adopted. We refer more especially to the hope then expressed that in using these tables the superintendents would carefully note any objections and difficulties which the attempt to carry them into practice may involve, and forward them to the Statistical Committee, of which Dr. Rayner is the secretary. By this means a future annual meeting will be able to decide on the recommendation of the Committee whether the new tables are workable, and should be continued in their present form or somewhat modified.

It may be well to point out that any superintendent who has been accustomed to make more numerous tables than those of the Association, is in nowise debarred continuing to do so by the adoption of the new forms. Such *supplementary* tables will possess great value, and not interfere with the uniformity of the other tables. All that is asked is that superintendents shall not give *less* than is called for by the new tables, and shall adopt their *numeration*.

NOTES OF AUTOPSY HELD UPON THE BODY OF CHARLES J. GUITEAU.

To the Editor of "The Medical Record," N.Y.

Sir,—As requested by you, we enclose preliminary notes of the autopsy held upon the body of Guiteau. The examination was made under the direction of Dr. Lamb, U.S.A., to whose courtesy we are indebted. Each physician present was left at liberty to make his own notes and observations. Those enclosed are compiled equally from notes independently taken by us. We were greatly assisted also by Dr. Chas. K. Mills, of Philadelphia.

Dr. Lamb will publish, later, a full report, which this does not forestall, but to which it is, as stated, simply preliminary.

Wm. J. Morton, M.D.
Chas. L. Dana, M.D.

New York City, July 5, 1882.

The post-mortem was held about three-quarters of an hour after death.

SKULL AND BRAIN.

The Skull.—The most noticeable asymmetry was a slight flattening of the upper and anterior part of the right parietal bone. The flattening ended sharply at the coronal suture. It included a space about half the size of the palm of the hand. Other points of asymmetry were not sufficiently noticeable to be studied with the means at our command.

The cranial sutures were distinct. There was no visible trace of a frontal suture, the two halves of the frontal bone being thoroughly welded. On the inner surface of the skull the bony prominences were well-marked ; also the pacchionian depressions. No abnormalities were discovered. There was a slight prominence corresponding to the flattening of the parietal bone before mentioned.

The thickness of the skull was not measured, owing to lack of facilities. An attempt was made to measure its cubic contents, but it failed for the same reason. As regards thickness there was no striking abnormality at least.

The relative size of the fossæ could not be accurately determined at the time of autopsy.

Brain membranes.—The dura mater was quite strongly adherent in places to the inner surface of the skull. Near the trunks of the middle meningeal arteries upon each side the membrane was thickened and strongly adherent to the bone, though it could be stripped clean. It was also adherent near the

longitudinal sinus in front. There was at these points, probably, a slight chronic pachymeningitis externa. There was no exudation upon the inner surface of the dura anywhere. The cerebral sinuses contained but little blood. There was rather more than the average amount of pacchionian granulations distributed along the middle part of the upper surface.

The arachnoid.—There were very well-marked milky opacities of the arachnoid extending over the upper convex surface. These opacities were over the fissures only. In some parts they had a somewhat yellowish look.

The subarachnoid space contained no abnormal amount of fluid.

The pia mater presented no abnormal appearance. It came off easily from the brain.

The blood-vessels of the membranes and brain were not full, and the general appearance of the brain was anæmic.

There was no special examination of the larger vessels.

THE BRAIN.

The weight was forty-nine and a half ounces (measured on a grocer's scales).

Its consistence appeared to be normal.

Its specific gravity could not be obtained owing to lack of facilities.

The measurement of its chords and arcs could not be obtained for the same reason.

As regards contour and shape exact studies could not be made. There was no apparent asymmetry of the two hemispheres.

The comparative weights of the cerebrum and the other parts could not be obtained.

The cerebellum was well covered. The occipital lobes were not noticeably blunt or sharp.

The frontal lobes were peculiarly shaped. Looking at them from in front and above, they presented two protruding points from which the surface sloped away in a concave curve. This pointed apex of the lobes with the concavity of the orbital and beginning of the frontal surface was carefully noted by all of us at the first exposure and removal of the brain.

Frontal lobes.—Their peculiar shape has been referred to. As regards size they appeared to be well developed.

Left Side.—The first frontal fissure was very long. It was broken by a single bridge near the junction of the anterior and middle-thirds. The secondary fissure was very marked, so much so that it seemed almost to form an independent primary fissure. The second frontal fissure was well defined, but interrupted by four small concealed connecting convolutions. It communicated with the first by a cross fissure. It was not confluent with the præcentral fissure.

The præcentral fissure was well defined, and not confluent. The convex surface of this lobe, as a whole, was marked with an unusual number of cross and other secondary fissures. It was not of a confluent type, but it showed a marked tendency to the four-convolution type.

The orbital surface showed a radiate orbital fissure starting from a single central depression or fissure. There were five radiate fissures from this centre. The olfactory fissure showed nothing peculiar.

Right Side.—The first frontal fissure was well defined, non-confluent, except that at its posterior extremity it communicated with a deep cross fissure. The secondary fissure was a typical one. The second frontal fissure was well defined and non-confluent.

Præcentral fissure.—(No notes.)

The orbital surface was well fissured. The orbital fissure branched off from a small isolated central convolution in seven different rays.

The olfactory fissure was normal.

The right frontal lobe was not of a confluent type nor four-fissured, but had an unusual development of secondary fissures, like the left lobe.

The Parietal Lobes.—Left Side.—The Fissure of Sylvius.—The distance of

its lower end from the apex of the frontal was not measured; nor the angle it formed with a horizontal plane. In both these respects it appeared to be normal. There was a partial confluence with the first temporal and also with the fissure of Rolando. From the surface it appeared as if the latter fissure passed directly into the Sylvian. On parting the convolutions, however, a connecting convolution was seen. The fissure seemed to be of average length.

The anterior branch was well defined and non-confluent.

The fissure of Rolando was well defined and not confluent. The præ- and post-central convolutions, as well as the paracentral lobule, were large and well developed.

The retro-central fissure was well-defined, and separated from the interparietal by a small concealed connecting convolution.

Right Side.—The fissure of Sylvius.—There was no confluence, apparent or real, of this fissure.

The anterior branch.—(No notes).

The fissure of Rolando was well-defined and non-confluent. It extended slightly into the longitudinal fissure, fissuring the paracentral lobule. The central convolutions, as they lay under the depressed parietal bone, were examined with special care. The præcentral convolution was well developed throughout its whole length. The post-central convolution was well developed up to its upper fourth. Here it became narrow and shrunken.

The paracentral lobule was quite small. On the left side, *per contra*, this lobule was well developed, while the fissure of Rolando was separated from the longitudinal fissure by a broad convolution. (There was a deficient innervation of the left side of the face.)

The retro-central fissure was well defined and confluent with the interparietal.

Left Side.—Island of Reil was well covered. Seven straight fissures and eight convolutions were present.

The interparietal fissure began at the retro-central and ran a well-defined course, ending in a transverse occipital, from which it was separated, however, by a small convolution. It had no complete confluences.

Right Side.—The Island of Reil was well covered, and had five straight fissures and six convolutions.

The intraparietal fissure began in and was confluent with the retro-central. It was well defined. No abnormal confluences noted.

Tempero-sphenoidal Lobes—Left Side.—The first temporal fissure was well-defined for depth, but was not so long as usual—not running up to the angular gyrus. It was slightly confluent with the fissure of Sylvius.

The second temporal fissure was not especially well defined.

On the basal surface the inferior temporal fissure was well-defined and not confluent.

The collateral fissure was well-defined and long, extending to the anterior end of the temporal lobe.

The fusiform lobule was smaller on this, the left side, than on the right.

Right Side.—The first temporal fissure was well-defined and of normal length, with no confluences.

The second temporal fissure.—(No notes.)

On the basal surface the inferior temporal fissure was normal. It was incompletely confluent with the collateral fissure, which was well defined but shorter than that on the left side.

Occipital Lobes.—The primary fissures were present in these lobes, on both sides, and no especial peculiarities were noted.

The anterior occipital, or Wernicke's fissure, was present on each side, was well-defined and non-confluent.

The right transverse fissure was well-defined, beginning on the mesal surface and passing out with two small interrupting convolutions.

The left transverse fissure was well-defined; nothing further noted.

Thus, of the three fissures which combine in apes to form the ape-fissure,

viz., the second temporal, the anterior occipital (Wernicke's), and the transverse occipital, two were only normally defined; the remaining (the temporal) was not strongly marked.

Mesal Surface—Left Side.—The calloso-marginal fissure ran its usual course to form the anterior boundary of the præcuneus. It was broken in the last part at the præcuneus by a convolution.

Above this fissure was a secondary fissure, running parallel to it and ending about opposite the first third of the corpus callosum.

Right Side.—The calloso-marginal fissure was continued on through the præcuneus to the parieto-occipital fissure, from which it was separated by a small convolution.

The secondary fissure upon this side was still more developed than on the left, and ran back to the anterior boundary of the paracentral lobule.

On the whole it would appear (1) that the brain was marked by an unusual number of cross and secondary fissures, especially in the frontal lobes; (2) that it was not of the confluent fissure type; (3) that the convolutions on the two hemispheres were quite asymmetrical.

Interior of Brain.—The white substance was somewhat whiter than usual, and of normal consistency.

The gray cortex was measured and seemed to be somewhat thinner than usual. Eight or nine measurements in different parts gave a thickness varying between $\frac{1}{8}$ $\frac{1}{9}$ $\frac{1}{12}$ $\frac{1}{16}$ of an inch.

The ventricles were dry, the ependyma normal, the choroid plexus showed nothing noticeable. No spots of hemorrhage or softening were found, no tumor was present.

Cerebellum.—Nothing peculiar was noted regarding this portion of the brain.

The brain was finally cut into various pieces.

Portions were distributed for microscopic examination.

Official Report by D. S. Lamb, M.D., Army Medical Museum, Washington :—

The examination was begun at 2.30 p.m., one hour and a half after death. The body was of a faint yellowish tint, that of a man five feet seven inches in height, and weighed 145 pounds. (Eyes examined by Dr. Loring, the pupils slightly and equally dilated; vitreous cloudy and fundus indistinguishable; conjunctiva of the left eye was congested. He repeated the examination two hours later, and noted the appearance as of a transverse fracture of the lenses.) A small white scar, directed obliquely downwards, forward and to the left, and confined to the scalp was observed, and midway between the top of the left ear and median line of the head (skull). The right parietal bone was slightly flattened over the space about two inches just back of the frontal parietal suture and to the right of the interparietal. There was a slight flattened elevation in the corresponding internal surface of the calvaria. The frontal suture was obliterated; others quite distinct. A number of pacchionian depressions were observed near groove for longitudinal sinus. In thickness the skull presented nothing remarkable. The membranes of the brain. The dura mater was firmly adherent to the interior portion of the calvaria in the vicinity of the longitudinal sinus. There were adhesions of the dura also to the base of the skull. They were quite firm, and situated in the several fossæ, and most marked in the deeper parts of the fossæ, where also there were small patches, abruptly limited, of immovable arborescent congestion, with, however, no attendant thickening or pigmentation. This stagnation was again most marked in the left anterior and middle fossæ. There was no congestion of dura except at the points just noted. The dura and pia mater were adherent to each other, and to the brain on both sides along a limited portion of longitudinal fissure in the vicinity of the pacchionian granulations. The dura was slightly thickened along the longitudinal sinus. It was also slightly thickened and opaque along a portion of the line of the middle

meningeal artery on each side. The arachnoid of the upper convexity of the brain presented in many places, where it covered the sulci, small patches of thickening and opacity; elsewhere it was normal. The pia mater was anæmic anteriorly. Posteriorly there was slight hypostasis. The cerebral vessels appeared to be normal in all respects. The orbital plates were well arched, and presented many conical eminences of large size. There was no roughening anywhere of the inner surface of the skull. The brain was firm. Its weight, including cerebrum, cerebellum, pons and medulla, and a portion of the dura, was 49½ ounces. It was slightly flattened in the region corresponding to the flattening of the parietal bone above mentioned. On the section of the cerebrum there was an appearance as of slight thinning of the gray cortex. Measurements gave depths of one-sixteenth to one-eight inch in close proximity to each other. The white substance was almost absolutely anæmic. The cerebellum and island of Reil were both covered on each side the fissures. The fissures generally presented considerable depth in many places, as in the right fissure of Rolando, amounting to seven-eights of an inch. The right fissure of Sylvius was typical; the left was separated from first temporal by a slight bridge deeply situated; the right fissure of Rolando did not connect with the fissure of Sylvius; the left was separated only by a small bridge deeply situated. Both were separated from the longitudinal fissure. The first frontal fissure on the right side was not connected with that of Rolando, but at the posterior part was crossed by the secondary fissure. The same on the left side, except that the fissure was crossed by a small bridge near the centre. The second and third frontal fissures presented nothing remarkable. There were numerous secondary fissures.

The præcentral and retrocentral fissures on each side were well-defined, and were unconnected with other fissures. The interparietal fissure on each side terminated in transverse occipital, separated only by a slight bridge. The parieto-occipital was well-marked on each side The transverse occipital fissure on the right side was ill-defined. It began on the median surface and extended well outwards. The first temporal fissure was well developed on the right side. On the left it was not of the usual length. The Wernicke's fissure was well-marked on the left side, but not confluent. The calloso-marginal fissure was double on each side, the upper of the two being properly the true one. On the right, the upper one extended back to the anterior margin of the paracentral lobule; on the left, not quite so far. The lower one extended on the right side to a line about half-an-inch in front of the parieto-occipital fissure, from which it was separated by a small bridge on the left side, also by a bridge of large size. Orbital surface—on the right side were seven fissures radiating from a circular fissure, surrounding small isolated convolutions. On the left side were five fissures radiating from a small shallow depression. The left collateral fissure was well-defined, extending to the anterior extremity of the temporal lobe. The right was also well-marked, but did not extend so far back as the other, and there was an attempt at confluence anteriorly with temporo-occipital, a small bridge intervening. The left temporo-occipital fissure was well-defined.

The Convolutions.—The following alone call for remark: The ascending frontal was well-defined on each side. The ascending parietal on the right side was well developed in its lower three-fourths, but narrowed in the upper fourth. On the left side, the narrowing was less marked. The island of Reil presented on the right side five fissures and six straight gyri; on the left side, several fissures and eight straight gyri. The paracentral lobule was well-marked on the right side, small on the left.

Thorax and Abdomen.—The usual median incision was made, and the abdomen opened. There was extravasation of blood into the right pectoralis major muscle near the second rib. The adipose layer of the abdominal section was one inch in thickness. The dome of the diaphragm extended up to the fourth rib on each side. There were old pleuritic adhesions at the apex of the

right lung; upper and middle lobes were congenitally united by connective tissue. The lung was normal throughout. There were also old pleuritic adhesions of the left lung to the diaphragm, and between its lobes three small tubercle-like pigmented patches were observed in the upper lobe. The heart weighed ten and three-quarter ounces. Its muscular substance was apparently normal. There was abundance of fat upon its anterior surface, and a villous patch of old pericarditis near the apex of the left ventricle. The right ventricle contained little blood, just forming a clot. The valves were normal. The aorta was slightly atheromatous for a short distance above the valves. All of the abdominal viscera presented large accumulations of fat; they were normal. The liver was congested. The gall-bladder contained a little bile. The spleen was lobulated and enlarged; it weighed eighteen ounces; capsule was bluish, substance brown; malpighian bodies hypertrophied. The pancreas was normal. The stomach contained food. The intestines appeared normal, they were not opened. The kidneys were congested; there was a small superficial serous cyst on the right one.

Notes.—1. A considerable quantity of dark blood ran out of the heart in separation of the heart and lungs. 2. Dr. Young states that the man was subject to malarial attacks while in jail. 3. He had eaten dinner an hour and a half before the execution.

Report of Drs. Sowers and Hartigan, at Washington, D. C., July 13th :—

"So much contention has grown out of the making of this autopsy, and recently there has been so much controversy made public through the press concerning it, that we are constrained to give a brief history of the case.

"Brain Membranes.—The dura mater was quite strongly adhering in places to the inner surface of the skull, viz.: near the trunks of the middle meningeal arteries; also near the longitudinal sinus in front, but could be stripped clearly from the bone at all these points of attachment, as there was no roughening of the skull here or elsewhere. There was no exudation on any part of the inner surface of the dura mater. Quite a number of pacchionian granulations were distributed along the course of the sinus. The cerebral sinuses contained but little, if any blood. The dura mater, pia mater, and brain were adherent to each other on both sides and along a limited portion of the longitudinal fissure adjacent to the pacchionian granulations of the arachnoid. There were very well-marked milky opacities of the arachnoid, but no apparent thickening, extending over the upper portion of the convex surface of the hemispheres only. As elsewhere, the membrane was perfectly normal. These opacities were confined to the upper portion of the sulci in this vicinity exclusively, and were such as are often found without previous history of disease. The sub-arachnoid space contained very little fluid; pia mater was easily stripped from all parts of the brain. The blood-vessels of the membranes and brain were empty, and the general appearance of the brain was anæmic.

"Both these conditions can be readily accounted for by the unfortunate removal of the lungs and heart, and the severing of large blood-vessels by Dr. Lamb before the brain or its membranes were exposed or examined, and on this account nothing of importance was attached to this condition, as the blood that was in the brain at the time the autopsy commenced had opportunity, at least, of making its exit into the chest cavity. Sufficient examination was made of the large blood-vessels of the brain to determine that they were in a healthy condition.

"Brain.—The brain entire, with a portion of the dura mater attached, weighed 49½ ounces, about the average weight for an adult male. Just how much more it would have weighed had it not been drained of its blood, and had the scales been more delicate, we are unable to say, but certainly it is safe to assert that it would have been considerably more. The consistence of the brain was normal; its specific gravity and measurements of its cortex areas could not be obtained, owing to lack of facilities. There was no apparent

asymmetry of the two hemispheres. As regards contour and shape, exact studies were not made, and comparative weights of different parts were not obtained. The cerebellum was well covered. The occipital lobes were not noticeably blunt or sharp.

"We desire to state that we were not in accord with Dr. Lamb in the order adopted by him in making the autopsy. We did not object at the moment, for the reason that it had been agreed that he (Lamb) should do the cutting, and after this agreement we did not feel at liberty to interpose an objection at the very instant of the beginning of work, with a number of gentlemen present by invitation to witness the operation. We thought then, and think now, that the brain should first have been opened and examined, instead of which the first incision made by Lamb was in the region of the heart, and when the thoracic cavity was laid open we had no idea that it was the intention of the operator to sever the large vessels which must necessarily be cut in the removal of the heart before an examination of the brain was had. The cutting of these vessels was the work of an instant, and was done before objection could be interposed. That the brain had been cut in pieces and the parts distributed, and this before its examination under microscope, is true. It was done without consultation with, or authority from us, and furnishes another instance of what has been apparent all through this proceeding—unwarranted assumption of authority and responsibility by Dr. Lamb."

The following is the official report to Dr. Lamb of the microscopical examination of the brain of Charles J. Guiteau, published in the *Medical News*, Washington :—

Sir,—The committee of three whom you, with the assent of Rev. Dr. W. W. Hicks, requested to make a careful microscopical examination of sections from the brain, dura mater, and lungs of the late Charles J. Guiteau, and to report the conditions found to be present, have completed their investigation, and have agreed upon the following report :—

Thin sections prepared by Dr. J. C. McConnell, of the Army Medical Museum, from the lung, dura mater and brain, were submitted to your committee for their inspection.

The committee regret that the preparations presented did not more completely represent the whole brain and its membranes.

The Lung.—The sections of lung were from the left upper lobe. Their appearance was common to miliary tubercle. Some of the minute nodules consisted of aggregations of recently formed miliary tubercles, in which giant cells were quite distinct. Others contained older foci of similar aggregations which had undergone corneous degeneration.

Considerable pigmentation of the pulmonary parenchyma, very like that of anthracosis, was also to be seen.

Dura mater.—The sections of dura mater were from the region of the middle meningeal artery. They showed but few, if any, signs of inflammatory action, and there was not much thickening evident.

Brain.—The brain sections comprised the following series, viz. :—Sections from two portions of the corpus striatum, marked respectively corpus striatum 1, corpus striatum 2, and sections from four portions of the gray matter of the convexity or cortex of the cerebrum, labelled respectively frontal region, convexity 1, convexity 2, convexity 3. Those from the frontal region were probably from the superior frontal convolution, while those marked convexity 1, 2, and 3, were cut respectively from the ascending frontal, the ascending parietal, and the superior parietal convolutions, bordering upon the median longitudinal fissure, but the committee were not informed from which hemisphere.

A closer examination of these sections, under a high power of the microscope, revealed the lesions noted below :—

Corpus striatum 1.—Not a few of the blood-vessels, particularly capillaries

and venules, were decidedly abnormal. Their perivascular lymph spaces were often more or less completely filled with masses of yellowish brown pigment granules, which appeared to be the degenerated remains of old blood extravasations.

In areas very numerous, but mainly limited to the gray or ganglionic substance, the capillary blood-vessels presented their walls in a state of granular degeneration. Sometimes these granules were limited within the endothelial cells, constituting the wall of the capillary, but often they were found for a considerable distance completely encircling the vessel.

The lumen of the blood-vessels was usually void of blood corpuscles, and was patulous. A small number of very minute recent hemorrhages were to be seen.

In the gray or ganglionic matter of these sections were quite numerous areas in which alterations of the neuroglia and of the ganglionic nerve corpuscles were very plainly visible. In them the pericellular lymph spaces were much crowded with lymphoid elements. In some areas the whole space seemed to be occupied by collections of such cells, no trace of the neuroglia cell or nerve corpuscle remaining. Most frequently, however, neither the encompassed nerve corpuscle nor the neuroglia cell was destroyed. On the contrary, their nuclei and branched processes were generally distinct. Yet in many cases the body of the cells was extensively tinged with a yellowish brown pigment, and in a smaller number of cells the presence of well-defined dark granules in the cell body was sufficient to mask entirely the nucleus, if any existed. Moreover, in the latter case the cell processes were sometimes much less numerous than normal, and the body of the cell was not so angular.

Corpus striatum 2.—In these sections the neuroglia and nerve corpuscles were found to be in much the same condition as above noted.

In a general way it may be stated that the cellular hyperplasia or cell multiplication was more marked than in No. 1.

With respect to the lesions of the blood-vessels, two departures from health were noteworthy. Instead of those lesions consisting of the remains, in the perivascular lymph spaces of blood extravasations, as in the first sections examined, these spaces at points along the course of the vessel were often found crowded with lymphoid elements. In some instances these white cells were clustered closely around and adherent to the wall of the vessel upon its exterior, and often most abundantly aggregated in the immediate vicinity of a bifurcation. In others the cells were closely packed together upon the external wall of the perivascular lymph space and slightly infiltrated the adjacent neuroglia.

In the white fibrous nerve substance there were isolated bundles of nerve fibres and collections of such bundles, easily distinguished from the others by the presence, in greatly increased numbers, of cell elements upon and between them. Under a high power of the microscope these elements were found to be outside the capillary blood-vessels, and to occupy the same relation to the nerve bundles and to the vessels, and to present the same general microscopic picture as that seen in longitudinal sections of the optic nerve in a descending optic neuritis.

The areas of diseased structures, above mentioned, were more or less diffusedly scattered among tissues in which nothing distinctly abnormal could be made out.

Cerebral Cortex.—Frontal Region.—The first layer seemed to be thinned almost to nothing in spots at the convexity of the convolution. The depths corresponding to these spots were, perhaps, a little more hypercellular than other portions. In the second, fourth, and fifth layers, especially in the two latter, the blood-vessels presented, in a marked degree, degenerations similar to those remarked in the corpus striatum.

In the second, fourth, and fifth layers, the pericellulur spaces, both of the neuroglia cells and of the ganglionic corpuscles, were more or less filled with lymphoid cells. In these layers some ganglion nerve cells were also quite freely

pigmented. Sometimes one-half the body of the cell was densely packed with pigmented granules to such an extent as to veil the nucleus, but the latter, as well as the enclosed nucleus, even then could generally be discerned, although with difficulty.

This cellular hyperplasia was much more marked in the fourth and fifth layers than elsewhere, and was pretty uniform throughout them, yet even here there was an obvious tendency to distribution *en plaques*.

In the subjacent white nerve fibrous substance the vessels were also sometimes slightly altered, and a few examples of cellular hyperplasia along the nerve bundles, much as was described for the corpus striatum, were rarely seen.

But few recent hemorrhages were visible in the sections examined.

Convexity.—Numbers 1, 2, 3.—The same abnormal appearances were remarked in all these sections, varying only in degree. It is sufficient to state that they were usually identical with those noted in sections from the frontal region, the only difference worth mentioning being the fact that the areas in which the vessels offered a granular degeneration were much less numerous and extensive than in the frontal region.

In the foregoing report it is to be assumed that the structures not specially mentioned were found in a condition so nearly normal as to call for no remark.

It should be stated, however, that in these various brain sections numerous so-called minute vacuoles were found. Whether these forms were real cavities or were transparent, highly refracting bodies of a definite constitution which was not revealed by the method of preparation, the committee do not undertake to say. Neither do they, in view of the wide-spread difference of opinion among observers, feel warranted in expressing a positive opinion as to whether or not these so-called vacuoles are to be regarded as post-mortem changes.

As bearing somewhat against the assumption of a post-mortem origin for such appearances in general, the following facts, besides many other considerations, may be referred to:—

First.—They are not constantly found in brains which have been obtained thirty-six or forty-eight hours after death, long after decomposition has set in.

Second.—They have not infrequently been found in brains of animals killed for the purpose of experiment, when the nervous tissue has been instantly subjected to the action of the most perfect preservative fluids.

Third.—They have been met with when the brain substance has been examined perfectly fresh.

Fourth.—If they are the result of post-mortem change, they should not be met with immediately after death, but should appear and increase in number as decomposition advances. Yet no such relation to the time of death and state of decomposition has been observed for them.

In estimating the significance of these vacuoles in Guiteau's brain, it should be remembered that the specimens were obtained and submitted to the action of the preservative agents not more than five or six hours after death, an early period rarely possible with human subjects; that the microscope showed the elements of the brain well preserved in other respects; that in some brains examined forty-eight hours after death these appearances are absent, and in others they are often less numerous than they were found to be in this particular brain; finally, that they were associated with abnormal conditions of the blood-vessels and of the cellular elements of the brain.

In conclusion, your committee have no hesitation whatever in affirming the existence of unquestionable evidence of decided chronic disease of the minute blood-vessels in numerous minute diffused areas, accompanied by alterations of the cellular elements in the specimens of brain submitted for their examination. While the lesions found were most marked in the corpus striatum and in the frontal region of the cerebral cortex, yet they very diffusely pervaded all portions of the brain which the sections represented.

They are of opinion that all of the lesions to be recognised in the sections placed in their hands have been pointed out in the foregoing report. They regret that it has not been possible to subject the tissues to all the tests which might determine the nature, beyond a peradventure, of the so-called vacuoles referred to.

They have not been called upon to pass judgment upon the bearing the lesions found might have upon the state of the subject's mind, and, therefore, do not offer an opinion. Respectfully submitted,

J. W. S. Arnold,
E. O. Shakespeare,
J. C. McConnell.

September 4, 1882.

Dr. Lamb furnishes the following measurements of Guiteau's skull :—

Cranium of a male, age nearly 41.

Internal capacity	1530 cc.
Length	182 mm.
Breadth	144 mm.
Breadth of frontal	97 and 125 mm.
Height	133 mm.
Index of foramen magnum	45 mm.
Frontal arch	290 mm.
Parietal arch	323 mm.
Occipital arch	243 mm.
Longitudinal arch	380 mm.
Circumference	521 mm.
Length of frontal bone	127 mm.
Length of parietal bone	135 mm.
Length of occipital bone	183 mm.
Zygomatic diameter	125 mm.
Facial angle	71 mm.

Skull, mesocephalic.

DR. BRODIE'S RETIREMENT.

We observe that Dr. Brodie has given up his private institution for imbeciles at Liberton, near Edinburgh. He has for a quarter of a century worked hard at this branch of our department, and it is with regret we note his withdrawal from active work. Dr. Brodie had at first a private institution in Edinburgh, and then he and his late wife threw themselves with extraordinary zeal into the great work of founding the Scottish Institution and School for Imbeciles at Larbert. Without them that work would not have been done. For several years Dr. Brodie was the physician and superintendent of that Institution, overtaxing himself in doing the work of organizing and managing the place. His heart has all along been in this branch of medicine. He was zealous, enthusiastic, and loving in doing it. The Institution at Larbert has passed into what is no doubt a temporary phase of lay management, much to the regret of the majority of the medical profession in Scotland, who, while fully recognising that much of the work of an imbecile training school may be done by laymen, yet consider that the foundation for the only scientific treatment of congenital mental deficiency must be based on a knowledge of cerebral function in health and disease. Dr. Ireland, however, still manfully sticks to his colours, and is now the only medical man in Scotland who treats this most important cerebral defect and disease.

Correspondence.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

Richmond District Lunatic Asylum, Dublin,
25th day of November, 1882.

GENTLEMEN,—In a letter from Dr. Nugent, published in your last number, that gentleman says that "he concurs in the opinion (expressed at page 112 of your April number) that it would be well if Dr. Lalor explained the reason of the Inspectors omitting to visit the Richmond Asylum." I cannot see why I should be expected to explain why the Inspectors omitted to visit the Richmond Asylum even if I had said that they had done so, which I never did.

What I did say in my report for 1880, and which is not challenged in Dr. Nugent's letter, was as follows:—"I have no report to submit from the Inspectors of any inspection made by them in 1880, and as the same has been the case for some years, it appears to me only right that I should supplement the absence of such documents by reports of visitors to the asylum in the last three years, and as these reports are generally from persons of experience in asylum management, and many of them well-known authorities, I hope that the Institution will not suffer in its character from the want of efficient reports."

I submit my case to the judgment of the profession, and I have no fear as to the result.

I am, Gentlemen,
Your obedient servant,
JOSEPH LALOR, M.D.

Appointments.

ARMSTRONG, WILLIAM, M.R.C.S., to be Deputy Medical Superintendent of the Yarra Bend Lunatic Asylum, South Australia.

COBBOLD, C. S. W., M.D., to be Medical Superintendent of the Idiot Asylum, Earlswood, *vice* G. W. Grabham, M.D., resigned.

CRADDOCK, F. H., B.A. Oxon, M.R.C.S., to be Medical Superintendent of the Gloucester County Asylum, *vice* E. Toller, M.R.C.S.

DESTON, FRED. P., M.R.C.S., to be Medical Superintendent at the Beechworth Lunatic Asylum, Victoria.

DOUGHTY, T. HARRINGTON, M.R.C.S. Eng., to be Second Assistant Medical Officer to the County Asylum, Powick, near Worcester.

DUNLOP, J. B., L.R.C.S.I., to be Assistant Resident Medical Superintendent of the Downpatrick District Lunatic Asylum.

HALL, B., M.D. Lond., to be Assistant Medical Officer at Earlswood Asylum, Surrey, *vice* Dr. Jones, appointed Assistant Medical Officer at Colney Hatch.

HITCHCOCK, CHARLES KNIGHT, M.D., M.A. Cantab., to be Deputy Superintendent of the Warneford Asylum, Oxford, for six months.

IRELAND, W. W., M.D. Ed., to be Medical Officer to Murray's Hospital for Girls, Prestonpans.

JONES, ROBERT, M.B. Lond., &c., to be Assistant Medical Officer at Colney Hatch Asylum (Female Department), *vice* Dr. Cobbold.

MOODY, JAMES M., L.R.C.P. Edin., M.R.C.S. Eng., Assistant Medical Officer, Surrey County Asylum, Brookwood, to be Medical Superintendent of the New Asylum for Surrey, Cane Hill.

ROWLAND, C. D., M.D., to be Junior Assistant Medical Officer to the County Asylum, Whittingham, Preston.

SMITH, W. B, F.R.C.S.E., to be Deputy Medical Superintendent of the Metropolitan Asylum, Yarra Bend, Melbourne.

WATKINS, W. L., L.K.Q.C.P.I., L.R.C.S.I., to be Medical Superintendent of the Guntary Lunatic Asylum, South Australia.

THE PRIZE DISSERTATION.

A bronze medal and ten guineas will be awarded, on the following conditions, to any Assistant Medical Officer of any lunatic asylum (public or private), or of any lunatic hospital in the United Kingdom, for the best Dissertion on any clinical or pathological subject relating to insanity.

The following are the conditions:—

The dissertation to be in English, and the number and importance of original observations will be considered as principal points of excellence.

Each dissertation to be distinguished by a motto or device, and accompanied by a sealed envelope containing the name and residence of the author, and having on the outside a motto or device corresponding with that on the dissertation.

The dissertation shall not exceed in length twenty pages of the ordinary type of the Journal of the Association.

The manuscript *Prize Dissertation*, and every accompanying drawing and preparation, will become the property of the Association, to be published in the Journal at the discretion of the Editors.

Those dissertations which shall not be approved, with their accompanying drawings and preparations, if any, will, upon authenticated application within the period of one year, be returned, together with the unopened envelopes containing the names and residences of the respective authors.

The unapproved dissertations which shall remain one year unclaimed, with the drawings and preparations, will become the property of the Association. In such cases the envelopes containing the names of the authors will be burnt unopened in the presence of the Committee.

The dissertations for the Association medal and prize for the present year must be delivered to Professor Gairdner, 225, St. Vincent Street, Glasgow, not later that four o'clock on May 30th, 1883.

No prize will be awarded if in the opinion of the adjudicators none of the dissertations are of sufficient merit.

The name of the successful author shall be announced at the annual general meeting of the Association, together with the title of the Dissertation.

H. RAYNER, Hon. Gen. Sec.
G. H. SAVAGE, Editor.
(Committee appointed by Council).

Nov. 29th, 1882.

The Adjudicators, appointed at the Annual Meeting, are the ex-President (Dr. Hack Tuke), the President (Professor Gairdner), and the President-Elect (Dr. Orange).

NOTICE.

Gentlemen possessing the photographic group of the Annual Meeting of 1881 can obtain a key to the names on application to Dr. Tuke.

ERRATA.

In the last number, p. 332, line 7, for "than in the old conception," *read* "than is the old conception." P. 410, line 11, for "Anderson," *read* "Adamson." P. 449, Table IA, for "Discharge or Recovery," *read* "Discharge on Recovery."

INDEX TO VOL. XXVIII.

The Editors are indebted to Dr. Newth for the compilation of this Index.