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EDITED BY

HENRY MAUDSLEY, M.D.,

AND

THOMAS S. CLOUSTON, M.D.

"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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The following *EXCHANGE JOURNALS* have been received :—

Annales Médico-Psychologiques; Zeitschrift für Psychiatrie; Archiv für Psychiatrie und Nervenkhrankeiten, herausgegeben von Dr. L. Meyer und Dr. C. Westphal; Correspondenz Blatt der deutschen Gesellschaft für Psychiatrie; Irren Freund; Medizinische Jahrbücher, herausgegeben von der K. K. Gesellschoft der Arzte, Vienna; Revue des Sciences Médicale en France et à l'Etranger; Archivio Italiano per le Malattie Nervose e per le Alienazioni Mentali; Annali Frenopatici Italiani Giornale del R. Manicomio di Aversa e Della Società Frenopatica Italiana Diretti dal dott. Car. B. G. Miraglia; Medizinisch Jahrbücher (Zeitschrift der K. K. Gesellschaft der Aerzte in Wien); Rivista di Discipline Carcerarie in relazione con l'Antropologia, col Diritto Penale, &c., diretta Da Martino Baltram Scalia; Rivista Clinica Di Bologna, Diretta Dal Professor Larigi Concato e redatta Dal Dotton Ercole Galvani; the American Journal of Insanity; the British and Foreign Medico-Chirurgical Review; the Dublin Quarterly Journal; The Lancet; The London Medical Record; The Practitioner, a monthly Journal of Therapeutics, edited by F. E. Anstie, M.D.; the Medical and Surgical Reporter, a weekly Journal, by S. W. Butler, M.D.; the Medical Times of Philadelphia. Also the Morningside Mirror; the York Star; Excelsior, or the Murray Royal Institution Literary Gazette.

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PART 1.—ORIGINAL ARTICLES.

The Morisonian Lectures on Insanity for 1873. By the late DAVID SKAE, M.D., F.R.C.S.E., Physician-Superintendent of the Royal Edinburgh Asylum, &c., &c. Edited by T. S. CLOUSTON, M.D., F.R.C.P.E.

(*Continued from page* 355.)

LECTURE II.

I propose in this lecture to pass in review the various forms of insanity which you find in the Table, and by a brief reference to their history and symptoms to show you how they really are distinct forms of disease, and that in each or nearly so there will be found some peculiarities in the symptoms or progress of the case which render it somewhat different from other forms of insanity; such in fact as in many instances would lead you to detect the cause, and such certainly as to justify us in classifying it as a distinct form of insanity.

Epileptic Insanity.—The first form of insanity tabulated is Epilepsy with insanity—or Epileptic insanity.

I think myself fortunate that this should be the first form, as it enables me to do three things:—First, to meet the objections to my classification on the ground that the mental symptoms may be quite different in the cases which I refer to a common cause; viz., that they might be those of mania in one, of monomania in another, and dementia in a third. This is emphatically true of epileptic insanity, yet no one ever questioned the propriety of this name as a form of insanity.

Secondly, I shall show that by this system we can do what by the old system we cannot do, describe as a distinct disease what may have three kinds of symptoms—mania, melancholia, and dementia—at different stages of its course, so preserving its individuality.

Thirdly, it will enable me to show how, in a form of insanity where the maniacal symptoms may be of the most formidable type, the monomania persistent, and the dementia hopeless and complete; yet, in all these conditions, the mental symptoms may, and indeed generally do, present such peculiarities as mark them as eminently *Epileptic*.

The epilepsy of infancy arrests the development of the brain, and we have an idiot or imbecile, and to this condition I shall not further refer.

When insanity affects the adult, after, it may be, a long continued epilepsy, it may take the form of mania, monomania, or dementia, as I have said. The maniacal symptoms generally appear after a succession of epileptic fits, and they are very peculiar in their character. The patient destroys his dress, is noisy and clamorous, and blindly and impulsively dangerous, striking out violently, or dashing himself against any one without any provocation, for no apparent reason, and without any warning. I had one such epileptic who, when excited, spoke in a high falsetto voice about the holy fathers; and, if he had an opportunity, he would fly at any one near him, and either kick at his testicles, or throw him down and attempt to gouge his eyes. I had another case in which the gentleman spun round his padded room incessantly on his head, with his feet up against the wall.

I know of no form of insanity where the maniacal symptoms manifest themselves in such blind impulsive fury. The mere presence of two or three attendants will control almost any maniac except the epileptic, whom no fear or threats of control can daunt. The duration of these maniacal attacks may vary. It rarely exceeds ten days, seldom indeed more than three, and sometimes only lasts a few hours.*

When the symptoms are those of monomania the delusion varies in different cases, but very frequently manifests itself in a homicidal impulse, less frequently in a suicidal one, often in unfounded and insane suspicion, or morbid vanity. It is remarkable how frequently the symptoms are of a *religious* character. I had an industrious, intelligent patient under

* This maniacal condition is very often preceded by a state of extraordinary unreasoning irritability and touchiness, and a positive craving for a quarrel with somebody, that is quite characteristic of the epileptic. It is followed by a state of confusion. It is a curious physiological fact well known in asylums, that the epileptic mania and the epileptic irritability are much less apt to appear if a patient sleeps after the fit, and I am sure I have often prevented an attack of epileptic excitement coming on by giving the patient a dose of chloral after a fit.
T. S. C.

my care for many years, who, after his periodic attack of epilepsy, laboured under the delusion that he was the Saviour, and for several days he gave me, in a very grave voice and impressive manner, direct messages from above, which he stated he had received for my guidance.

I think you will seldom find a monomaniacal epileptic who does not possess and take great care of his Bible, and read, or seem to read, it attentively at certain periods.

Dr. Howden has described this religious phase of epilepsy very ably in a paper in the January number (1873) of the "Journal of Mental Science." He gives a few very interesting cases from his own experience. In some of them the delusion was that the person was commissioned to save the world; in another to kill the devil; that of another that he was sometimes Adam, sometimes God, sometimes Christ, and sometimes the devil. Such delusions are frequently formed when the patient is in an epileptic trance and sees visions; sometimes they are permanent, and not unfrequently accompanied with a strong homicidal tendency.

The consideration of the cases described leads Dr. Howden to inquire "how far epilepsy has had to do with the origin of certain religious creeds, and how far the visions of many so-called religious impostors may have had an epileptic origin?"

Accordingly he finds among other examples that Ann Lee, the mother of the *Shakers*, was an epileptic. During her epileptic trances, she had visions of the Saviour, who "became one with her in body and spirit."

The visions of the celebrated Emanuel Swedenborg, in which he received revelations from above, visited hell, &c., were probably all due to these epileptic delusions and trances.

The so-called prophet Mahomet was undoubtedly an epileptic. "I do not see" says Moreau (de Tours), "how it can be denied that the fanaticism of Mahomet arose from the maniacal delirium or diabolic enthusiasm of epilepsy, if we look carefully into his life and actions."

"By his ecstatic visions had henot become the dupe of his visions, whence sprung the first idea of his divine mission, and then had not these visions become the principal, if not the whole basis of his apostolic works, as well as the source of his audacity, and his prophetic power over the ignorant and superstitious spirit of his countrymen?"

"It seems incredible" (says Dr. Howden) "that a religion which sways the minds of 200,000,000 of the human

race at the present day should have no better foundation than the visions and dreams of an epileptic."

The homicidal impulse in many epileptics is most interesting and important in its medico legal relations.*

Before saying more on this subject I ought to mention another peculiarity accompanying the insane symptoms of the epileptic, and that is, the great frequency of hallucinations of all the senses as compared with what we meet in any other form of insanity. Hallucinations of vision are very common. Before, or in the interval between the fits mostly, epileptics see luminous bodies, or dark bodies which threaten to envelope them. Sometimes they have visions of persons and objects which are not present; and the objects appear to be presented to them with great vividness. I have seen an epileptic gunmaker busy cleaning his imaginary gun with visionary washing rods and water, or putting all the pieces of the locks together, naming each of them, and pushing them about on the palm of his hand, asking me if I did not see this, that, and the other bit of the mechanism.

Hallucinations of hearing are common among epileptics. They will hear sounds like thunder—the roll of drums, the clatter of arms, and the tumult of an engagement.

"Sometimes," says Brierre de Boismont, "strange figures address the epileptic; they insult him, or command him to do a certain act. It is highly probable that many of the crimes committed by these unfortunate persons, and for which some have been severely punished, were the results of hallucinations of hearing and sight."

De Boismont relates the following case as an example:—

"J. M. was liable to epileptic fits; at their termination he showed symptoms of great excitement, and after one of these attacks he rushed like a madman into the country, and successively assassinated three men. He was followed, secured and thrown into prison, where he was asked the reason of his actions. He stated that he perfectly recollected killing the three men, especially one who was his relative, which he very much regretted. He said that during these paroxysms of fury he saw himself surrounded by *flames*, and that the colour of blood delighted him."

* Trousseau's opinion on this subject is well known, and who that has had much occasion to consult his works on practical points will not be inclined to adopt any opinion expressed by him? He lays it down that any person who makes an entirely unprovoked and unaccountable homicidal attack, especially if he seems afterwards to be unconscious of having done so, is an epileptic, or will become one. T. S. C

"The paroxysms of epilepsy" says Dr. Conolly, "are often preceded by a spectrum, and the state of the brain then existing, whatever it be, being present in other instances without being followed by the paroxysm, has often been the origin of a belief in supernatural appearances."

Hallucinations of the senses of smell and taste are also met with not unfrequently in epileptics. They perceive fetid or noxious odours, as of putrifying matter, the smell of brimstone, and horrible tastes suggestive of drugs and poison.

Another hallucination remains to be noticed—a hallucination of the internal sensations—the Aura Epileptica. This aura begins at some point in the periphery—at the toe or thumb, the lower part of the bowels, or the stomach, and spreads gradually upwards until it seems to reach the head, when the patient has either an epileptic fit, or a *petit mal*, or some slight, but momentary confusion.

This *Aura* is sometimes met with in patients who have never had an actual epileptic fit, and in them it is often associated with a suicidal or homicidal impulse.

I have three females under my care now, all of whom have the Aura Epileptica, and all of them are suicidal, and one also homicidal after its occurrence.

The following case is very interesting and instructive:—The patient had no intellectual derangement or delusions. I may call him an epileptic maniac, for although he never suffered from an epileptic fit, properly so called, he laboured under symptoms which closely approached to those of an epileptic seizure of the milder form, known as the *petit mal*. He described a feeling like the *Aura Epileptica*, beginning at his toes, and rising gradually upwards to his chest, producing a sense of faintness and constriction, and then going up to his head, and giving rise to a momentary loss of consciousness. This *Aura* was accompanied by an involuntary jerking first of the legs and then of the arms.

It was at the time he suffered from these attacks when he felt impelled to commit some act of violence to others, or to himself. On one occasion he attempted to commit suicide by throwing himself into the water. More frequently the impulse was to attack others, and was at one time accompanied by such impetuous violence, that it required the strength of several men to restrain him. He deplored his malady, of which he spoke with great intelligence, giving all the details of his past history and feelings. His attacks, which had been frequent and severe about the age of sixteen,

had for a long time almost disappeared, but had lately recurred at intervals until it was found necessary to send him to the asylum. Sleeplessness and constipation almost invariably preceded his seizures.

Two years afterwards, although no epileptic fits had yet been manifested, the case had undergone an interesting psychological development in the same direction, the patient now having almost daily a vivid spectral hallucination in the form of a newspaper. He can see it for a short time so distinctly as to be able to read a long paragraph from it. He continues to suffer from the *Aura Epileptica*, and other symptoms allied to epilepsy. It is right to add that this patient benefitted materially from the use of the bromide of potassium, so useful, to a certain extent, in most cases of epilepsy.

The question naturally occurs here—had this patient committed a homicidal act under the influence of this morbid epileptic impulse what would have been his fate had he been tried for murder? Undoubtedly, according to the legal definitions of insanity, he would have been hanged. He had no delusions; he knew right from wrong in reference to the very acts which he felt impelled to commit. Therefore, according to law, he was sane and responsible.

To sum up on the subject of epilepsy with insanity, I think you will admit that I have made out a case for this being considered *a form of insanity* over and above the existence of the pathological cause, if we may call it so—epilepsy—and in spite of the fact that the symptoms may run through all the classes of the old system. The disease has its natural history; its *mania* is all its own, with its fury and blind impulsiveness; its monomania is unique, with its religious delusions and homicidal and suicidal impulses; and even its dementia has its characteristic ebullitions of irrational and impulsive violence, while all are more or less frequently characterised by hallucinations of the senses, peculiar in their character and frequency to epilepsy. In conclusion, the strongest possible proof of this being a disease *per se*—a form of insanity *per se*—rests in the fact that if you can cure the epilepsy you at the same time cure the insanity. This is a rare event, but it has occurred; as in cases where the epilepsy was due to a depressed portion of the cranium, and where by its removal the epilepsy was removed, the insanity being at the same time cured.

Insanity of Pubescence.—The next form of insanity in our

table is that of *Pubescence*. It can easily be imagined that the great changes which take place in the nervous system at this period, added to a hereditary predisposition, may, on some exciting cause, even of a trivial kind, give rise to insanity. The propensity to mental derangement is much greater in girls than boys at this age; in Dr. Blandford's opinion, in consequence of the superadded function in them of menstruation.

The insanity which accompanies pubescence in boys I cannot describe better than by citing a case which I regard as a typical one, illustrative of the most common and characteristic symptoms, and their usual course in this form of insanity.

This boy was seen by me three days after the invasion of his disease. He was very restless and excited, talking incessantly, and walking up and down the room, meddling with everything he could lay his hands on. He had a great deal of that self-confident, would-be-manly air, which boys are apt to assume at the period of puberty; and although not naturally of a combative tendency, nor possessed of any great pugilistic acquirements, he professed himself ready to fight with any man. He was the source of the greatest trouble to the attendant in his ward—disarranging the seats, breaking the spittoons, and annoying the older patients. This condition of excitement continued for about a week, and was succeeded by a state of depression. He would sometimes burst into tears, at other times hold up his finger on which he had received a slight scratch, and declare that it was affected with cancer. Such feelings, however, were of a very evanescent nature. They had none of the characters of true melancholy, and appeared to be but the revulsion in a not over strong constitution from the previous state of exaltation. In a day or two he became quite composed, and showed himself to be naturally an intelligent and quietly disposed lad. He was thin and weakly looking, but no signs of phthisis could be discovered on examining the chest. He continued very well for two or three weeks when he had another attack of excitement, the symptoms being very much the same as those in his first attack. A few weeks after recovering he had a third attack of the same kind, which continued about ten days; after which he recovered steadily and permanently.

I have before me in the Asylum Case Book another case described almost exactly in the same words as the one which I have given.

One more case I shall briefly relate as illustrative of those spasmodic and choreic movements and cataleptic conditions often met with, especially in girls, in this form of insanity. In this case the boy was sometimes preternaturally excited, but more often dull, and sullen—he wept, and said he had committed the unpardonable sin, and tried to tear off his clothes and throw them into the fire. Sometimes he appeared to be in a sort of cataleptic fit, falling down at times and appearing to be in a sort of trance. He had a silly and stupid look, refused generally to take his food, and would not answer questions when spoken to. Sometimes he would suddenly throw himself on the floor, but whether voluntarily or involuntarily could not be made out. For a month he continued alternately better and worse. He occasionally practised some curious movements. He would stand for more than an hour at a time working his hands backwards and forwards as if he were playing a pair of bones. On other occasions he would devote as long a period to twitching the corners of his mouth up and down, and jerking his body backwards and forwards. If any one went up to him and shook him gently he immediately stopped these movements. Within three or four months he recovered.

These cases of insanity of pubescence are not unfrequently combined with or terminate in habits of masturbation, in which case it may readily be conceived that the symptoms are modified, and partake of those of the latter vice, or tend to a settled dementia instead of an early recovery.*

Insanity of Masturbation.—The Insanity of Masturbation scarcely requires comment or illustration—it must be familiar to you all. The premonitory signs may be taken from any newspaper from an advertisement headed "Debility," or some such name, readily recognised by the unhappy victim, and going on to tell how a certain doctor cures "Nervous debility, mental and physical depression, palpitation of the heart, noises in the head and ears, indecision, impaired sight and memory, indigestion, loss of energy and appetite, pains

* There is nearly always hereditary predisposition in these cases, and if this is very strong, dementia instead of recovery may also supervene. The salient and characteristic features of the insanity of pubescence that distinguish it from other forms of the disease may be said to be the age at which it occurs, the symptoms being ordinarily those of excitement at first, and these not delirious or raving mania so much as an aggravation and an unreasoning form of the usual high opinions of themselves entertained by young people at that age, the transient nature of the symptoms, the tending to sudden remission and outburst, the speedy recovery with usually complete mental restoration, and the constant association of the disease with hereditary predisposition.

in the back, timidity, self distrust, groundless fears, and muscular relaxation." Add to these symptoms the dislike to female society, the inability to look you straight in the face, the fear of being impelled to commit suicide, culminating in a true suicidal and sometimes homicidal impulse, and you have a pretty accurate bird's-eye view of this form of insanity. Along with these morbid impulses there are sometimes delusions of a religious character, such as that the person has committed many acts of wickedness—that he has blasphemed the Holy Ghost—has been guilty of the unpardonable sin. In other cases the patient thinks that people are watching him, and that they accuse him of crimes he has not committed. Such patients often complain of their dreams as being horrible or obscene, or full of accusations against themselves. The mental state immediately after excessive masturbation in these cases is that of stupor. If these cases are put under proper care and treatment before the mind has become too impaired to exert self-control when reasoned with, they generally recover. But when dementia has begun to show itself in impaired memory, and energy, silly vanity, and self-satisfaction, the cases assume a very hopeless aspect, with a tendency to gradually increasing dementia if the vice is persevered in.

Satyriasis and Nymphomania.—These are diseases closely allied to the one I have just described, with this essential difference, that the sexual excess arises from *desire* towards the opposite sex; that the origin of the morbid and incontrollable passions is in the nervous centres, and not in the testes or ovaries or other sexual parts.

I think you can hardly fail to admit that I have made out a good case for the last four forms of insanity being distinct forms, having each its own natural history and characteristic group of symptoms, while each is connected more or less remotely with the sexual passion.

Closely allied in some respects to these is the next form of insanity on the table—

Hysterical Insanity.—The changes which take place at puberty acting upon a girl predisposed to insanity or to hysteria, helped, it may be, and doubtless as it very frequently is, by the habit of masturbation, terminates in the outburst of an attack of Hysterical Insanity. The insanity may exhibit itself at first by great excitement, laughing, crying, incessant talking, and restlessness, with

sleeplessness, efforts to run out of the house, violent ringing of the bells, and screaming. All these symptoms are accompanied by some prevailing symptoms of a sexual or erotic character; there is some one in love with her, she has retention of urine, or something else is wrong in or near the uterus. I need not weary you by an attempt to describe the protean features of Hysterical Insanity, from the cases of singular moral perversion—living without food, giving birth to mice and toads, passing all sorts of curious things with the urine—up through the long chain of singular varieties it presents with varied sexual and erotic symptoms, until we find it presenting a truly maniacal aspect. In all these varieties one can still recognise the hysteria—the sexual mark—which characterises each, and makes your prognosis and treatment so different from what, in the absence of that significant mark, it would have been. This is certainly a well-marked natural order. The following letter, written by a young lady while presenting acutely maniacal symptoms, illustrates very well the peculiarities in the delusions or trains of thought which I have just referred to as characteristic of *Hysterical Insanity*:—

"My dear Mamma,—It is time that I leave to return home. I have been tremendously changed to the better. I think papa will be able to get me a commission under Garabaldi before long. There are three to whom I am especially indebted—one Mr. C., the modeller, the other the doctor, a eunuch, who modelled me at the fire, and attended on me and bathed me. He is, I am sure, a gentleman—a splendid doctor. Could not papa get him into a regiment abroad? And there is the nurse. Could not papa get him any situation away from Morningside Asylum, where I am at present? I should like papa to come for me as soon as possible. Do you remember the verse, "There are, &c." (12th verse, 19th chapter of Matthew), about Eunuchs? Then I beg to inform you that according to Scripture and my conscience Jessy, your cook, is a man, and Janet, the mad devil, is a man; and Denham and Henry boys who can have children. Aunt Isabella is a man, and yourself also, both made of men, and I am a boy made of Dr. C. and Dr. Z. Mrs. T. is a man, made of men. They are very ignorant on this subject here; but as for me, it is certain that at least the spirits have showed me, which Christ sent when I was under drugs; they showed me this. I have at times since I came here passed the shadow of death, and therefore am authorised to speak in opposition to all men and women, gentlemen and

ladies, who oppose me. I am, I can swear, as you want to know what sex I belong to, a mixture of a nymph and a half-man, half-woman, and a boy, and a dwarf, and a fairy. I know more than my fellow mortals, having expired eleven times before the time.—I am, &c."

Amenorrhœal Insanity.—The next form of insanity on our table is Amenorrhœal. I have no doubt you have all met with cases of insanity in which there were irregularities in the catamenia—scanty or irregular menstruation, dysmenorrhœa, or menorrhagia. In some of these cases the deranged menstrual function is an effect or concomitant of the insanity, and in others a predisposing cause. Such cases of irregularity are met with in hysterical and phthisical insanity, in epileptic and anæmic insanity, and others. But the insanity which I wish to distinguish under this heading as a distinct form is one where the amenorrhœa is obviously the immediate and essential cause. There may be, and probably always is in every case, a predisposition, and very often a hereditary one, which doubtless may modify the symptoms; there may be also in some cases an exciting cause which has lit up the symptoms; but the disease is essentially one whose pathological basis lies in the organs of reproduction, and generates insanity from the periphery to the centre of the nervous system, and may be called sympathetic, or reflex, as you please. The connection between cause and effect in the cases to which I limit myself is sufficiently obvious from the fact that they occur after the suppression or continued absence of the catamenia; that they are ascribed by the patient herself very often to this cause; that the earlier symptoms are such as we would expect from this cause—headache, flushing of face, and throbbing of the temples, giddiness, palpitation, and such like; and lastly and conclusively, that the insanity rapidly disappears when the catamenia are re-established.

I have carefully collated a number of cases of this insanity from my books and notes, and I find it exhibits the following varieties in the symptoms which attend it, and in its progress.

1st. In robust young girls the early symptoms are generally maniacal, especially if the menstruation has been stopped suddenly by cold bathing, or wet feet, or some unexpected and severe shock to the nervous system. The patient is restless, noisy, violent, destructive of clothing, dirty in her person and habits, sometimes suicidal. The maniacal symptoms are occasionally succeeded by melancholy, sometimes by

an apathy amounting almost to stupor. In the earlier stage the patients often refuse their food.

2nd. In girls who are more or less anæmic the symptoms are somewhat different. At first the patient is restless and a little excited; this, however, very soon passes into depression, accompanied by delusions, such as that she has committed some crime—that her soul is lost—that people are watching for her, &c., she becomes dull, stupid, and refuses to answer questions.

3rd. In older persons above the age of 28 or 30, the symptoms are generally those of deep melancholy, with suicidal impulses, preceded sometimes by restlessness, tendency to tear and scream; but these are of short duration, the melancholy soon supervenes, and is often accompanied with some delusions about seeing some one, or being watched or plotted against. Such cases according to my experience generally recover within four or six months, if put under proper care and treatment. The symptoms of improvement shew themselves almost immediately after the reappearance of the catamenia and the improvement in the bodily health, and make steady progress towards complete recovery. Some cases, however, terminate in confirmed and hopeless dementia.

In the few cases of menorrhagia and irregular menstruation connected with insanity, the symptoms have resembled those described as characteristic of amenorrhœal insanity. In one well marked case of menorrhagia, now before me, the mother declared that her daughter was almost always menstruating, the one illness being almost continuous with the next. As in some of the cases referred to, maniacal symptoms seemed to alternate with melancholia. She was at first under delusions that her mother was the devil; that she could never die, and she shouted and raved, and had attempted to throw herself over the window. On admission she screamed fearfully, she then became deeply melancholy, and could not be induced to speak; she was restless, and muttered and moaned during the night. On the following day she was quiet and depressed, but in the evening the maniacal symptoms returned. This condition gradually deepened into dementia, when after the lapse of four months her health being gradually restored, and her catamenia becoming regular, she recovered.

Dr. Blandford very truly remarks that in such cases as those we have been reviewing, connected with the sexual organs—the insanities of pubescence, of masturbation,

hysteria and amennorrhœa, we often find combinations and complications; that in some the one state or disease leads to the development of the other habit or disease. Pubescence naturally leads to masturbation, and the latter to hysteria, which again is not unfrequently associated with amenorrhœa.

The following is a very good specimen of such a combination of morbid and consenting forces :—

A young woman having suffered from simple depression of spirits for two years, became suicidal, and at times dangerous and sleepless. She has frequently threatened her mother with a knife, using the grossest language. She says the devil urges her to commit suicide, and that his control over her is irresistible. She was pale and anæmic, and had not menstruated for ten months. Has for some time coughed up a little blood. She suffers from great weakness, palpitation, pain in her bowels, and cold perspiration at night. She suffers from the globus-hystericus. Is very selfish and indolent. Cannot look one straight in the face, nor speak in a straightforward manner. She is greatly addicted to masturbation, and says herself she has never felt quite right in these parts since she had a child four years ago, and that is the cause of her practising that habit. Here was a case in which there was a combination of four efficient causes of insanity found existing at the same time. Yet in this case, where the history is pretty full and accurate, there can be little or no hesitation in saying it was insanity of *masturbation*. That habit had been indulged in for four years by her own confession, and beginning after parturition (no uncommon thing in puerperal insanity), the *amenorrhœa* which existed ten months, and the *hysteria* and the phthisical symptoms were superadded symptoms, brought on by the same cause which originated the depression of spirits and the suicidal and homicidal impulse. In fine, I think there are few cases in which we would fail to trace insanity to an obvious physical cause, if we saw them in their earliest stages and were fully informed regarding their history, mental, and especially *bodily*.

Post-Connubial Insanity.—The next form of insanity in my table is, like those preceding it, one connected with the sexual organs, or more correctly speaking of the sexual *orgasm*—it is what I have called *post-connubial insanity*. In men of robust habit of body, and who I had reason to believe had led lives of

rigid virtue up to the time of their marriage, I have known cases where the first night of connubial felicity was followed in the male by attacks of congestion, amounting to something like congestive apoplexy, although of transient duration, or resembling the epileptiform congestive attacks of general paralysis. Such attacks are transient. More often the symptoms of the insanity brought on by this cause are those of *acute dementia*. The patient is stupid and confused, and cannot answer questions; is restless and unsettled, and morose. These symptoms generally pass off soon, leaving the patient well.

In females the symptoms are better marked and more peculiar. A woman who had married a husband in every way apparently suitable to her, of her own free will, and with the approbation of the friends of both the contracting parties, suddenly after marriage becomes morose and full of remorse that she had married; says she had no love for the man nor he for her, cannot bear to hear his name mentioned, and is horrified at the idea of ever living with him. Her feelings towards her husband amounts to actual repugnance and morbid hatred. Some such patients are dangerous both to themselves and others.

One of the most suicidal patients I ever knew was a case of this kind. She was a handsome young woman, newly married to a very promising young man, perfectly suited to her apparently, and approved of by her friends and his, all of whom, including not only relatives, but former employers and other friends, took a lively interest in the marriage.

Immediately after its consummation she became intensely melancholy and suicidal. She walked up and down, night and day, for three months, wringing her hands, and with a face full of wretchedness, repeating the words unceasingly, "Oh! misery! misery!" She had, of course, short snatches of sleep, and was fed by force. She was watched continually by relays of attendants night and day during all that time, and never ceased for a moment to cast about for some contrivance by which she might commit suicide. She attempted to choke herself on cotton reels, balls of worsted, pieces of coal or stone—to stab herself by getting hold of forks and knives, and needles and scissors—to drown herself in the pond, the bath, or the water-closet; to precipitate herself from a height when she had contrived the chance, or to strangulate herself with the tape of her apron or petticoat—under cover of the former, being thrown over her face to enable her to get a sleep—and by the time the suspicion of

the attendant was aroused sufficiently to lead her to remove it she was generally found nearly black in the face. She ultimately succeeded, at the end of three months, in effecting her purpose by snatching the attendant's key from her, bolting out of the room, carrying the key with her. Having slammed the door against the attendant, the doors locking with a spring lock, the nurse was unable to follow her. Knowing well the geography of the house, and aided by her key, she made her way to an empty room, and there hung herself long before aid could reach her.

Such are the cases we occasionally meet with of post-connubial insanity, but as I stated in the beginning of this subject, the symptoms most usually met with are those of *Acute Dementia.*

The following case I consider a typical one, of which I could readily furnish other examples :—

A young woman of thoughtful and industrious habits and melancholic temperament married at the age of 20, and immediately afterwards became affected with a great desire to wander away from her friends and husband, and has often left the house and slept in the fields all night. She says she is looking for occupation. She seems to have no desire to remain with her husband, nor any affection for him. At times she is confused in her language, and wanders in her conversation. She is depressed in spirits, and has a listless appearance. Her catamenia have not appeared for four months, and there is no suicidal tendency. The hereditary predisposition is strong. Three or four of her sisters and her father's mother were insane, and the father himself was weak-minded. On being admitted to the asylum she was quiet, dull, and indifferent, complained of her head, and of having lost the power of controlling her conduct and thoughts.

During the whole period of her residence in the asylum she displayed much indifference, languor, and want of energy. She never thought her memory was impaired. She answered questions, but nothing more. She stood, or sat, or lay as she was placed. She had always to be fed, and her movements had all to be directed. She was untidy and careless in her appearance. She was daily employed either in the washing house or garden, but without benefit. Her countenance was vacant, but had a certain wildness in its expression, her eyes being always bright and glistening. She was removed to the poor-house at the end of two months, contrary to my advice, to be consigned to the wards of the incurables, as a

matter of economy, although her case was quite a curable one.

Sexual excesses after marriage lead to symptoms of a totally different kind;—to tabes dorsalis, to acute maniacal symptoms, and, according to Dr. Blandford, to the general paralysis of the insane, of which he thinks it is the most frequent, if not the constant cause. This opinion we shall examine afterwards; but I may conclude this lecture with an interesting case bearing upon several suggested points.

Some years ago I visited a gentleman in Haddingtonshire, whom I found labouring under well-marked symptoms of general paralysis. His age was 50. He had gone up to London when a young man, where he got into a very large and lucrative business. Some eight years before I saw him, he resolved to marry, but being too much involved in the turmoil of business to spare time to look out for a wife for himself, and pay her the necessary preliminary attentions, he fell back upon a young girl whom he had known in East Lothian before going to London, and to whom he had displayed some attentions. He asked a friend in the neighbourhood of the young lady's residence to visit her, to open the campaign for him, and propose for her on his behalf. This his friend managed successfully on his behalf; the young lady in due time went up to London, where she was married to my future patient.

Immediately after marriage he seems to have been seized with the post-connubial insanity I have described. He took the greatest repugnance to his wife, almost daily threatened her with a knife, and for four years, during which he never had connection with her, she lived in daily fear of her life, and regarded him as quite insane. During all this time he managed, by his reticence, to pass muster with his partners and others in business. About the close of this time he began to make mistakes and errors of memory which attracted the notice of his partners, who bought him out of the business on a handsome retiring allowance. While this was going on his conduct to his wife underwent a sudden alteration: from hating her and threatening to kill her, he suddenly became amorously uxorious, to a morbid degree—the fruit of which was a child. But, in the meantime, his mental condition rapidly underwent a great change—he became excited and full of delusions of wealth and grandeur, and the mental symptoms of general paralysis appeared, running on rapidly to a fatal termination.

This case was interesting from the latency of the insanity for four years, during all which time it was known only to his wife, who kept the secret at a terrible risk.

Whether the sudden and excessive development of the sexual desire was the cause and precursor of the general paralysis, or whether it was part of the earlier *symptoms* of that disease, I shall not detain you now to inquire.

Auditory Hallucinations. By George Fielding Blandford, M.D.

(Read at a Quarterly Meeting of the Medico-Psychological Association in London, December 3rd, 1873.)

I trust to be excused if in these days of pathological and anatomical research, I ask you to examine with me to-night a group of symptoms. I need hardly say that the study of symptoms must ever be of importance in the treatment of disease, and especially of that disease with which we are all concerned, and although to the general medical public the subject of hallucinations of hearing may have no special interest, yet the members of this association know that they characterize a very peculiar and well-defined class of patients, and that, common as they are, their nature and pathology are uncertain and mysterious. I have, therefore, chosen them, as the subject of a paper, chiefly for the purpose of promoting discussion concerning them, and eliciting the opinions of those here present.

The subject of hallucinations is generally treated by authors as a whole, and they are divided into those of sight, hearing, smell, taste, and touch. The best known treatises are those of MM. Baillarger, Brierre de Boismont, and Michea, all of which arose, if I am not mistaken, from the competition for a prize on the subject, offered by the French Academy of Medicine. I do not, however, propose to consider now the whole subject of hallucinations, but those of hearing only, thinking that they form a class special and apart from others, a class of the highest importance and interest to all practising in this specialty, whether we examine it from a pathological, therapeutical, or forensic point of view.

Although I do not propose to consider the hallucinations of the other senses, yet it is impossible to avoid a comparison

between those of hearing and sight. These two varieties are by far the most common of all that are met with, whether in the sane or insane, yet there is a great difference between them. Hallucinations of sight belong, according to my experience, to the acute, rather than to the chronic stages of insanity. We find them in patients suffering from acute delirium and acute mania, just as we meet with them in delirium tremens and other acute febrile disorders, but from the former the patient, unless he chance to die, does for the most part recover, and the visions and spectres vanish, and even if he does not regain his reason, but remains a chronic lunatic, the hallucinations, which accompanied the acute symptoms, subside, and are no more seen. This is the case in the majority of instances, not always, for I have a lady under my care who is much tormented, after many years of insanity, by lights and flashings directed upon her in the night. On the other hand, hallucinations of hearing are not so common in very acute insanity, such as acute delirium and delirium tremens; and in the fevers and delirium of ordinary disease they are found far less frequently than those of sight. Where we notice them in the insane they are, for the most part, chronic, and the acute stage, whatever it may have been, has passed away. And yet, judging by the few cases I have seen, in which I have been able to watch the progress of the disorder almost from the commencement, I am inclined to think that there is a transient acute or subacute stage at the commencement of every such insanity. I saw the other day a young gentleman, aged 24, for whose brother I signed a certificate of insanity some five years ago. His disorder was of not more than a week's duration, but he was overwhelmed with voices which compelled him to write to their dictation quires of rhapsodies, which he called poems. Here there were somewhat urgent symptoms, sleeplessness, flushing of face, heat of head, a quickened pulse, and hysterical and impulsive outbursts, with a strong tendency towards suicide. And almost the same symptoms were found in the case of a lady aged 29, together with sleeplessness and refusal of food. In the latter case the acute symptoms, if they deserve the name, soon subsided, but the "voices" remained. Hallucinations of sight are said, and apparently with much force, to accompany a condition of deep exhaustion, whether of mind or body. The acute diseases in which they are found are exhausting diseases, and the insane patients are asthenic rather than sthenic, and the same

thing may be noticed in those of the sane, who, without acute brain disorder, do from time to time, when fatigued or weak, see spectral visions. But the patients I have just mentioned as tormented by "voices" were more than commonly stout and robust, and their insanity certainly did not merit the name of asthenic. And I have not found that the chronic patients who suffer in this way are among the worst nourished or most miserable-looking of asylum inmates, far less so, indeed, than the melancholic class who do not, as a rule, present these phenomena. We see it stated, and stated truly, that hallucinations occur in the sane, and Griesinger says that nothing would be more erroneous than to consider a man to be mentally diseased because he had hallucinations. But on examination of the examples of hallucinations occurring in the sane, we find that by far the greater number of them are hallucinations of sight; those of hearing are rare, at least I have been able to discover but few well authenticated cases, and in these, though possibly insanity did not exist in the common acceptation of the term, there was more brain disorder than in the patients troubled with spectral illusions whose condition, if removed from that of ordinary health, was one of exhaustion rather than disease. This question may become one of considerable importance if it should be stated in a court of law that a person may suffer from hallucinations of hearing, and yet be sane. In answer to the abstract principle, it would be urged that hallucinations of this kind were uncommon in the sane, and the facts of the particular case would demand a very close investigation. I am not aware that there is on record any case of a persistent hallucination of hearing a voice occurring in an individual who was beyond question sane. There is the celebrated instance of Johnson who heard his mother's voice call "Sam," but it is not related that this happened frequently, and Johnson's mental condition at times verged upon insanity, to say the least of it.

Can we frame any hypothesis as to the pathology of these phenomena? In what consist the well-known incurability and persistence of these hallucinations? Spectral hallucinations come and go almost momentarily. Delusions of all kinds and all degrees of fixity may vanish, even after considerable periods of time, and yet when these "voices" are once established in a patient's brain, they seem to defy our efforts to oust them. They may fade into distance, may become infrequent, nay, for a certain period may seem to have

departed, but they come back again, and the only thing certain about them seems to be that they will again be found at some time or other prompting a patient who seems otherwise well to swift and sudden violence, or tormenting him till he cries to us to have pity on him and bring him relief.

I think we may assume in the first place that hallucinations do not depend on any disorder of the external organs of sense. Nobody supposes that any disease of the eye brings about the spectral hallucinations of the sane or insane. Neither can we believe that the ear is concerned with the hallucinations of hearing. Such phenomena as singing in the ears, which may be due to aural disturbance, are quite distinct from the voices with which we are concerned. But although the external apparatus of sight and hearing are not involved, we cannot avoid the conviction that there is a region of the brain which is disordered, a region which is habitually employed in receiving from the external organs the images and sounds they convey, and transmitting them to the higher brain-centres. I will not presume to conjecture where this region is situated; for the topography of the brain has yet to be definitely mapped out, though we may hope that the zealous labours of the present day will ere long add greatly to our precise knowledge of it. We may, I think, be sure that some such region or regions exist, that there is a mind's ear as well as the mind's eye. It is not that by an effort of attention alone we can call up through the idea portion of the brain a sound or a voice. Often sounds—as for example tunes—rise up unbidden, and a contest ensues between them and the thoughts which attention is doing its best to keep before us. A person haunted by a tune may be almost compared to one who hears a voice, and the persecution may for a time be not inconsiderable. By-and-bye the tune ceases, spontaneously, so far as we know, and then it may at any moment recommence, and this is as analogous as anything I know to the unbidden voices which torment the insane, but the one phenomenon is physiological, the other pathological. We clearly see here that the external organs of hearing are not concerned, for all this may go on without the slightest sound, and may continue in spite of a strong effort of will to restrain or banish it. If we turn to anatomical books we find the auditory centres located in the medulla oblongata. Without going so far as to say that here is the seat of these hallucinations, there appear to be

reasons why they may be referred to such a region rather than to the higher centres of the brain convolutions.

The persistence of auditory hallucinations makes it probable that this internal ear of the brain, if I may use such an expression, is capable of undergoing an organic change which leaves it in a diseased condition, and liable to an irritation more or less persistent, so causing the phenomena with which we are so well acquainted. That the voices take their fashion and tone from the prevailing temper and emotional condition of the patient is but too certain. An hallucinated man, whose state is melancholic, hears voices that say things quite different from those which a maniacal or monomaniacal individual reproduces. Fortunately for us not everyone of these patients is impelled to homicide or suicide. We are all acquainted with eccentric men and women, whose voices talk a great deal of most arrant nonsense, but their condition being tolerably tranquil and free from depressing emotions, they pass through life, it may be, like other chronic and harmless lunatics. Yet it is not to be forgotten that, if through ill health, or bad news, or any lowering cause, their condition becomes altered, the harmless voices and the harmless patients may, with little warning, become dangerous to themselves or others. As to the nature of such an organic change nothing can at present be said, but as the microscopical investigation of the brain advances, some light may possibly be thrown upon it, and it is greatly to be desired that those who in our large asylums have the opportunity of examining after death numerous brains, will try and discover whether there be any constant change in those who, during life, have presented the symptoms we are now considering.

Who are the patients in whom we chiefly find these voices, these hallucinations of hearing? On the other hand, what class of patients are exempt from them? According to my own experience, I have not usually found them in those whose insanity has commenced at an advanced period of life. Patients of 50 or 60 years of age are not, I think, generally afflicted with voices, unless they have retained them from an earlier period. Climacteric insanity, as it is called, is usually of the melancholic type, and not characterised by hallucinations, and this may be one reason why such patients do, in a large proportion, recover. So far as I have been able to observe, patients, at the time these voices first arise, are young rather than old; nay, in many, this form commences

under the age of 30. A large number of the young men and women who are admitted into asylums, and whose age and appearance would lead us to suppose that their insanity is curable, remain permanent patients because they are thus affected. We are called, it may be, to pronounce an opinion on a recent case. The symptoms may be somewhat acute, and have begun suddenly; the general health may be fair, and youth is on the side of the patient. There may be everything to lead us to give a favourable prognosis, yet time goes on, and though there may be amendment, there is no recovery, and at one time or other, perhaps not till after a considerable period, we discover that he or she hears voices, and our prognosis changes, and instead of being favourable becomes most unfavourable.

In that other variety of insanity in which our prognosis is also unfavourable, invariably unfavourable—I mean progressive, or general paralysis of the insane—we do not, according to my experience, meet with hallucinations of hearing. In the various cases of this disorder lately met with, I do not recollect any who have been tormented in this way. Fatal as is the lesion which destroys such patients, its seat would seem not to be that of these hallucinations, and inasmuch as general paralytics present nearly every delusion, both grandiose and melancholic, which are found in the ordinary insane, we may, I think, infer that there is a special seat for voices, and that it probably is not in the convolutions of the brain. M. Brierre de Boismont, in his work on "Hallucinations," states that they were found in 37 cases out of 147 of general paralysis, but those he gives are all examples of hallucinations of sight and not of hearing.

If we take a list of the various forms of insanity, such as Dr. Skae's, with which we are all familiar, and examine it with the view of determining the varieties in which hallucinations of hearing are most frequently encountered, it will not, I think, appear that they are specially confined to certain classes, though there are some in which they are certainly rare. The data, however, on which I base my own conclusions, are necessarily limited. I trust that those with a larger experience will confirm or disprove my own impressions.

As I have not, as a rule, found hallucinations of hearing commencing in those whose insanity comes on at the climacteric period, so neither do they seem common in the insanity of pubescence. In children we should expect to find those of sight rather than of hearing, visions and spectral

illusions, or violence, and abnormal motor manifestations without hallucination or delusion of any kind. Here, again, we have a variety in which the prognosis is favourable. But when the patients are past childhood, and have reached the state of manhood and womanhood, they seem especially prone to this complication. There is a variety which has been added to Dr. Skae's list, by Dr. Clouston, termed Hereditary Insanity of Adolescence. It is not described, so that I do not know the particular meaning attached to it, nor the precise age to which he gives the name "adolescence," but, assuming it to mean the age from 20 to 25 years, this variety would, according to my experience, embrace a great many cases of insanity, accompanied by hallucinations of hearing. Such patients have not broken down in their mental health through the strain of worry or work; neither have they fallen a prey to physical causes or bodily disease, but the insanity has made its appearance because of the strong inherited predisposition, and in these cases the hereditary taint, coupled as it is with the special hallucinations we are considering, renders the prognosis very unfavourable. Dr. Skae calls all insanity due to mental or moral causes *idiopathic*, and, inasmuch as much of this must be inherited—for it is in patients who are predisposed that moral causes operate most powerfully—it follows that among his idiopathically insane we shall find many suffering from hallucinations of hearing. Another variety, the victims of which are, for the most part, young people, is the insanity of masturbation. That many of the patients who hear voices masturbate, is certain, but whether their insanity rightly comes under the head of insanity from masturbation, is a question. In fact, it is difficult to say in a great number of cases whether the masturbation is the cause, a concomitant, or even the consequence of the insanity.

There are several varieties of insanity in the classification I have alluded to, which are based on some disorder of the sexual or reproductive organs. Thus we find satyriasis, nymphomania, hysterical, amenorrhœal, post-connubial, ovarian and puerperal insanity, and the insanity of pregnancy and lactation. I have tried to discover whether hallucinations of hearing are or are not to be looked for in patients suffering from these forms. The cases at my disposal are, I fear, too few to make my deductions at all conclusive, but I certainly have not met with them in the insanity of pregnancy, which is generally melancholia;

neither do I think them common in puerperal insanity, at any rate, in the acute stage. They are met with in connection with uterine and ovarian irritation, and I have twice found them in young women married to old husbands, both of whom were childless. Insanity from drink—insanity of alcoholism—by which I do not mean dipsomania or delirium tremens, but a chronic condition brought about by long continued tippling, I have reason to think is not unfrequently accompanied by voices. Three cases under observation at the present time are examples of this, two females and a male, and here, as might be expected, the age was somewhat advanced. One of the ladies, if not both, has also hallucinations of sight. Then we come to a number of varieties in which I believe voices to be rare. These are hypochondriacal insanity, senile, phthisical, metastatic, traumatic, rheumatic, podagrous, and syphilitic. Of malarious and pellagrous insanity I can say nothing. Post-febrile insanity, the insanity which arises in the course or decline of acute diseases, does not usually present this symptom; though there may be hallucinations of sight. In choreic and anæmic insanity I should not expect them. In short insanity complicated with other diseases seems to be free from hallucinations of hearing, which are chiefly to be found in the idiopathic and hereditary disorder, which comes on from some mental cause, or even without any assignable cause whatever.

You are aware that a distinction is made between hallucinations and illusions; that an illusion is said to be a false interpretation of a real sound, while an hallucination is a false perception, a fancied sound or voice, when there is no sound at all in reality. Some patients have hallucinations, others illusions. I do not think that there is much pathological difference between the two. Probably the inward ear, in the case of illusions, is stimulated into action by the stimulus of the sound conveyed to it by the external ear, but the idea bears no reference to the external sound, and is often a "voice" just as much as the hallucination proper. One of the most dangerous patients I ever met with was a gentleman who professed to hear no voices unless some noise was going on, as footsteps, and then he heard voices telling him to murder some one. Probably the majority of such patients have both hallucinations and illusions combined. For the purposes of diagnosis, prognosis, or care and treatment, I think it is of little consequence whether their

symptoms are hallucinations, strictly so called, or illusions. But there is a class of patients who have hallucinations of hearing, but do not hear voices, but only sounds, and this is a less formidable and altogether milder disorder, one which we may, with some confidence, hope will subside, and which if it does not, renders the sufferer less unhappy and less dangerous to himself and others. These patients, according to my experience, are not very uncommon, but their malady attracts less attention, owing to its less formidable character. The sufferer complains that noises are made in the next room or next house for the purpose of annoying him; that pipes are constructed in the wall, under the floor, or in the chimney, and he may take various steps with a view to ridding himself of these noises, such as complaining to the police, or the people next door; but this is a different state from that of the man who hears a voice commanding him to commit homicide or suicide, and straightway obeys it. I have known these noises subside and disappear for years, occasionally returning if for some reason or other the mental health of the individual had declined. I have also known patients become either accustomed to them or convinced to some extent of their falsity, and so able to live on in spite of them in their ordinary mode of life.

Other patients, though they suffered from hallucinations, were able to repress or disregard them sufficiently to carry on their daily work, or to live at home without being specially watched or guarded. Two cases I know, one that of a lady, and another of a gentleman, who thus manage to exist. Both have been away from home, but both have returned. They do not look upon the voices as hallucinations. They are fully persuaded of their reality, or were when last I saw them, but their conduct is not influenced to such a degree as to make it incompatible with life in ordinary society. How long this will last it is impossible to say, but as I shall hereafter have occasion to mention, such patients do not generally improve as time goes on.

In the years 1855 and 1856 the subject of hallucinations was discussed at great length before the Medico-Psychological Society of France, and the point chiefly in dispute was whether hallucinations are a pathological and morbid symptom, or only an exaggeration of a normal phenomenon, a modification of that which occurs in the ordinary operation of the psychical activity. On one side or the other were ranged all the chief psychologists of the day, but the debates

are too lengthy to be reproduced here. The question, however, may arise if, in a court of law, a man's sanity or insanity is the subject of investigation, and hallucinations of hearing the symptom in dispute. In the discussion at Paris no distinction was drawn between hallucinations of hearing and those of sight or the other senses; yet, as I have already said, the former differ in many respects from the latter.

Two questions are here involved:—1st. Can hallucinations occur in the normal state? 2ndly. Are they compatible with sanity? To the first I should reply that they are at all times a morbid phenomenon depending on a disordered state of the brain, or brain circulation, whether they be hallucinations of sight or of any other sense. To the second I would say that they constitute insanity, if they are of that intensity that the mind is unable to correct them by means of its reasoning and reflective power, and to recognise them to be hallucinations.

The hallucinations of sight, which are so often mentioned as compatible with sanity, are spectral illusions which can be corrected by the other senses, and are for the most part merely momentary. And in almost all the well-authenticated examples there was some degree of weakness or illness, or recent recovery from illness at the time they were seen. Even our old friend Nicoläi, of Berlin, who does duty in every book in which this question is mooted, was a man so subject to attacks of congestion of the brain that he was obliged to have recourse to leeches two or three times a year.

Another case, related by Dr. Paterson, and translated by Dr. Craigie from Hufeland's Journal, was that of a gentleman who was haunted for two days by a phantom assembly, which only departed after the application of leeches. I believe you will find in all the cases where the details of the patient's health are fully recorded, that something was amiss at the time. A lady, with whom I am well acquainted, can almost guage her general health and strength by the presence or absence of such hallucinations of sight. Sir Henry Holland relates a case of hallucinations of hearing which occurred in a sane man, and were recognised by him at the time as hallucinations. He was an old man of 85, and he had fallen and struck his head against a sofa, and for a time lost the power of articulation and memory. After three or four days he heard two voices, seemingly close to his ear, in rapid dialogue. Though conscious of the fallacy, he was wholly unable to check or withdraw the perception of them. They vanished the next day, and never returned.

Sir H. Holland also narrates a case, of great interest to us, of a gentleman, about fifty-two, without any obvious disease, who passed from the state in which he believed in and acted upon the reality of illusive sounds and conversations, to the condition in which, still having similar sensations, he recognised and treated them as delusions. He was asked at the later period how, when the same articulate sounds still seemed present, he had learned to regard them as delusions. He said it was partly by his never discovering any person in the place whence the voices had come, but chiefly by finding himself able, on trial, to suggest the words which were thus seemingly uttered by some one external to himself. "To these reasons," says Sir Henry, "might, doubtless, have been added some change in the actual state of the brain, however incomprehensible its nature and cause."

The latter case brings me to the consideration of the prognosis in these cases of hallucinations of hearing. You will not need me to tell you that it is most unfavourable. There can be few acquainted with asylums and asylum patients who cannot point to patients thus affected, who are both the most incurable and the most anxious of all the inmates. Many, I had almost said most, of those who make homicidal attacks on others do so at the instigation of their internal voices, and these attacks may, owing to such a source, be directed not only against the officers and attendants, but also against their unhappy fellow patients. We have to be ever on our guard, for a patient may be most friendly one minute, and in a second may change. I have a lady under my care at this time whose face changes suddenly from a smiling and pleasant expression to one of fury, and she will then rush at officers or attendants. And she is no less suicidal than homicidal, so that she can never be left alone, and can never be left at night with less than two attendants. There is an instructive case of this insanity reported by Dr. Lockhart Robertson in the "Journal of Mental Science" of April, 1861. The patient, a male, had murdered one man, and while at Haywards Heath nails, sharpened to a point, were found hidden under his mattress. He confessed to hearing voices. Concerning the latter Dr. Robertson says:—"Their influence in our prognosis is most unfavourable. Auditory hallucinations are so apt to lie dormant for a time, and again to reappear, that I should at any time be sceptical of the recovery of a confirmed case. This patient I consider to be quite incurable, and I should view the possibility of his being

set at large with the utmost alarm." You will recollect that Dr. Robertson had previously reported the case of another homicidal patient in the Journal of July, 1860, as one of homicidal mania without disorder of the intellect. But there had been auditory hallucinations, though Dr. Robertson was not able to detect any while the patient was under his care. I have always thought that these two cases were both of them homicides from voices, and that Dr. Robertson's caution as regards the second would apply equally to the first, viz., that these hallucinations are apt to lie dormant and again re-appear. Moreover, it is not to be forgotten that patients find out in time what it is that keeps them in an asylum. They are examined and cross-examined upon their delusions by commissioners, doctors, and officers, till they are well aware that they will not get away so long as they acknowledge certain beliefs; so they deny them, and frequently it is difficult to ascertain whether they have lost them or not; sometimes a trial alone will decide the point. Thus they will deny that they hear voices. A lady under my care a few weeks ago was full of voices, and told me whose they were and all about them. Now that she is placed in an asylum, she entirely denies that she hears any, but as her conduct is equally insane, I have not the least doubt that she does, and I look upon her case, though recent, as perfectly incurable.

Of the persistence of these hallucinations nothing can give us a stronger proof than the case I have quoted from Sir H. Holland of the gentleman who continued to hear them even while he was aware of their falsity. If we contrast this with the ordinary delusions of insanity, we shall see how organised the hallucinations must have become. A delusion ceases to be a delusion when the patient recognises it to be a false idea. He may recollect having entertained it, but that isall. But in the case I have mentioned the hallucination remained, though there was sufficient sanity for it to be appreciated as false.

I have said already that the higher brain centres are not, according to my view, affected primarily by this disorder. There appears to be but little disturbance of the intellectual functions, at any rate at first, and some patients would, and do, pass for sane people, but for this one exception. Hence, the difficulty of dealing with them. They may tell us that the voices have ceased, and then there appears to be nothing amiss. They may persuade their relatives and

friends that they are quite well, and the general medical public do not at present comprehend the grave character of these voices. My own belief, however, is, that the tendency of such patients is to get worse, that the power of repressing the voices and their suggestions becomes less and less, and that, in the majority of instances, the mental health is undermined by the constant worry and loss of rest and sleep brought about by them. The diagnosis of these hallucinations is often difficult, for patients will not always confess them. Much may be learned by observation of them when alone, for then they are most likely to listen for and answer the voices. And often we may detect a patient listening even while talking to us, and, by narrowly watching, may ascertain the existence of hallucinations, which may be quite unknown to the friends and relatives.

In my experience I have found these voices more common in chronic female patients than in male. Of 34 ladies now in an asylum, not less than 14, and possibly 16, hear them, while of 43 gentlemen I cannot be sure of their presence in more than nine. These numbers are, of course, very small for statistical purposes. I should be glad to hear the experience of those who have under their observation large numbers of the insane.

The Perception, &c., of Time as a feature in Mental Disease. By W. A. F. Browne, Psychological Consultant to the Crichton Institution. Late Commissioner in Lunacy for Scotland, &c.

(Read before the Quarterly Meeting of the Medico-Psychological Association at Edinburgh, November 27th, 1873.)

The power or process by means of which Time is mentally recognised and estimated independently of, or before, its external and artificial measurement, has not received a clear or comprehensive solution at the hands of those who have dealt with the subject. Certain metaphysicians connect the idea of duration with that of extension, and conceive that the child, or the savage, may have acquired a notion of intervals, or interrupted extension, from seeing and feeling through the muscular sense the alternate extension and flexion of his limbs; all comparison of such events with the successive changes in objective phenomena, as in days and nights, being the result of subsequent experience. Certain

others conceive that our notion of Time originates in our consciousness and observation of succession in our thoughts, feelings, and mental states, a succession which necessarily involves a series of changes separated in time, and order, and nature. Sir W. Hamilton, apparently aware of the difficulty of the problem, says that "Time is a form of thought," and "if we attempt to comprehend Time, either in whole or in part, we find that thought is hedged in between two incomprehensibles." Other philosophers, belonging to a more practical school, who may be claimed as psychologists, contend that the subjective element of Time is imparted by the communication of impressions upon the external senses to the sensorium, coming as these must always do in succession with intervals of different length, and, as they often do, of regular length and intensity. It will be observed that in all these hypotheses it is taken for granted that the mind is capable of directing attention to its own conditions, and, to a certain extent, of analysing these, of marking their course, their swiftness, or slowness, their regularity, or irregularity. On the other hand, the phrenologists contend that there is a primitive and special faculty connected with a portion of the anterior lobe of the brain, by which Time, or the succession of events and intervals, is perceived or becomes known to us. My own speculations formerly led me to the theory that the perception of rhythm, or regular sequence, in sensorial impressions was conveyed by the pulsations of the cerebral arteries, either to the whole brain, or to such portion of it as may take cognisance of internal movements or changes. Sir H. Holland, that noble veteran, that learned and travelled and philosophic physician, who has just passed from amongst us, dedicated a chapter in his "Medical Notes and Reflections," p. 499, to the exposition of "Time as an element in Mental Functions," in which his chief object is to show that ideas or different modes of mentalisation arise and are propagated in different degrees of velocity and intensity in Time in different temperaments, and in the same individual at different periods, in accordance with the predominant physical or mental condition.

But whether the Perception now under consideration be an intuition, an inference drawn from reflection, or be the result of structural or what are vaguely called molecular alterations in the brain, experience shows that different individuals are endowed with the power in various degrees of strength and range, as is perhaps best exemplified by the

difference which obtains in the estimate by different individuals of the variation of Time in the transit of a star across the micrometer thread of a fixed telescope. Physical disease lays bare the fact that during the course of fever, especially of puerperal fever, there is a total, or partial, loss of the appreciation of the lapse of time. Days, weeks, months are blotted out from the Calendar of Life. There is an inability to mark the sensations which constitute the stages of decay or recovery, even to note the hours and days recorded by the ordinary mechanical means. Even in health and vigour persons are met with who have little or no knowledge of the changes going on in their own constitutions, of the appointed periods and seasons in social arrangements; who never are aware of the duration of days, hours, minutes, and who are regulated by habit and imitation rather than by an apportionment of Time. It is asserted that our Celtic forefathers were defective in the computation of Time, and calculated "days, and years, and ages past," by signal events, catastrophes, or cataclysms, rather than by divisions in Time. A similar allegation is made as to uncivilised races. Galton says *—"We had to trust to the guides, whose ideas of time and distance were most provokingly indistinct. They have a very poor notion of Time. If you say, 'Suppose we start at sunrise, where will the sun be when we arrive? they make the wildest points in the sky, though they are something of astronomers, and give names to several stars. They have no way of distinguishing the days of the year, but reckon by the rainy season, the dry season, or the pig-nut season.'" At the opposite extremity of the scale may be placed the celebrated Lord Stowell, "who could at all times state the precise hour, or minute, without reference to clock, watch, or any artificial means of measurement;" † and the equally interesting, though not so celebrated, human timepiece, Chavalley, ‡ who, though deaf, by what he designated "an internal movement, or profound calculation, which neither thought, nor labour, nor anything, could stop, possessed the power to indicate, to a crowd around him, the passing of a quarter of an hour, or as many minutes, or seconds, as anyone chose, and that during conversations the most diversified and notwithstanding the recourse to every means by which his attention might be diverted." When tested by a scientific

* "Narrative of an Explorer in Tropical S. Africa," 1853, p. 182.
† "Recollections of Past Life," by Sir Henry Holland, 1872, p. 195.
‡ "Bibliothèque Universelle," vol. 27.

observer, M. Chavannes, "he shook his head at the time appointed, altered his voice at the quarter, half, and three-quarter minutes, and arrived accurately at the end of the period named." It would appear that this singular faculty continued in operation during the night, and during sleep, and that, provided his slumbers were not profound, nor had followed fatigue and exhaustion, he could within a very brief period after awakening indicate within a very few minutes what time had passed, or, in other words, how long he had been unconscious. In the infant and undeveloped mind instances of precocity in the perception of time, so far as musical intervals are concerned, are frequent. Crotch played the organ at three years old; Mozart acquired a knowledge of music by imitations of his sister at three years old, composed at five; Handel was sensible of musical intervals and practised on a deafened clarichord at three, and played the harpsichord and organ at first sight when seven years old; and Brigham mentions a hydrocephalic child who sang and kept time when he reached the age of fifteeen months.* Even where the intelligence is limited and ineducable similar peculiarities have been noticed; idiots are to be met with who display, though unable to interpret our means of measurement, an accurate knowledge of regular intervals and of the passage of Time; and every asylum and school may afford examples where an accurate rhythm is preserved in their oscillations. It has been affirmed that such movements, as well as those exhibited in malleation, in the alternate pronation and supination of modifications of chorea, &c., are performed at a distance of time precisely equal.† This is perhaps correct when the observation is confined to a single individual, but the succession of acts varies greatly in rapidity in different individuals and in different forms of disease. Our inquiries, however, will withdraw us from the contemplation of what may be regarded as the normal manifestations of the perception of Time, and lead us to phenomena indicating the enfeeblement, or exaggeration, of this power; its morbid influence, either in compliance with, or in opposition to, volition, and as demonstrated in acts, habits, and muscular movements. The most notable illustrations of the association of regular intervals, or the succession of events in Time,

* "Remarks on the Influence of Mental Cultivation and Mental Excitement." 1836, p. 27.

† Much information on this point is contained in Professor Laycock's "Nervous Diseases of Women."

will be found in the periodic, or paroxysmal, character of certain nervous affections, and of the *Folie circulaire ou à double forme** of the French. Besides the more striking illustrations, we have noted periodic laughter, periodic expressions, periodic micturition†. Conolly attended a case of epilepsy which assumed, in the return of convulsions, a tertian type; and it is well ascertained that in marshy countries the neuroses are apt to take on an intermittent form. But the subject is too vast and too profound to be embraced here, and we shall confine these remarks to cases in which Time enters as a feature, or a symptom, of disease, and where it is independent of the characteristics of the class neurosis, and, to a certain extent, of the diathesis of the patient.

Everyone must be aware that as we recede from particular seasons and circumstances memory fails to recall them in their original distinctness and vividness; indeed, as age advances large portions of our personal history are deleted altogether. But under the pressure of disease there occur large gaps, with sharply defined limits, up to one side of which every event is faithfully and accurately recollected, and beyond which the recollections are equally clear and truthful; but between which all is vacuous, unfathomable, and irrecoverable. When this loss of time and everything by which it was marked occurs in Mania, it may fairly be attributed to the extreme rapidity and tumultuousness with which thoughts and feelings follow each other, and the inability of attention to mark the members of the series, for they have no sequence, and, if the expression may be allowed, to commit them to memory; when in Dementia, it is obviously owing to the absence of subjective states in consciousness, and to the obtuseness of perception in receiving and registering external impressions. Such losses are frequent in the advanced stage of General Paralysis and Epilepsy, even while places, persons, and events are still remembered. When occurring in Monomania the hiatus is the result of delusion; and when in that rare Psychose, Double Consciousness, the oblivion of the one state alternates regularly with the supervention of the other.

About twenty years ago, I became acquainted with a lady who, after recovering from an attack of what may be called

* "Traité des Maladies Mentales," par M. le Dr. B. A. Morel, p. 474.

† I am indebted for an example of the latter to Dr. Anderson, Southern Counties Asylum, Crichton Institution.

Hysterical Fatuity, had lost twenty years of her previous existence, although that period had included her youth, courtship, and marriage. She had to recommence the education of the senses, as well as of the affections and intellect; never regained any conception of her previous relations to the world, society, or her family, and never recognised her husband. Dr. Abercrombie* says, "A lady whom I attended some years ago in a protracted illness, in which her memory became much impaired, lost the recollection of a period of about ten or twelve years, but spoke with perfect consistency of things as they stood before that time." He mentions several other apposite instances, and quotes Dr. Beattie as to a gentleman, "who on recovering from an apoplectic attack was found to have lost the recollection of exactly four years; everything that occurred before that period he remembered perfectly." I have, within the last week, lost a patient who has been in seclusion for thirty-eight years. This man was well educated and acute; after a brief paroxysm of mania he became a Theomaniac; but, amid the most absurd, heterogeneous delusions as to his divinity, translation to Heaven, &c., there was conspicuous the fact that he had lost an entire year, that there was obliterated from his mind 1836, although during it had grown up to maturity his second nature.

Inmates of asylums are often to be met with who have abandoned our calendar, who have lost, or transposed, days and weeks; who declare Tuesday, or Saturday, to be Sunday; and there has recently been submitted to me the sketch of a female, in confinement, who, being 70, declares that she is 103 years old, and says that she has counted every day of it. Her general memory and intelligence are perfectly clear. She avers that February is the only true month, and that all the others are liars; her aphorism being seven days in a week, four weeks in a month, twelve months in a year. Acting upon this datum she counts the days and months, and has got all wrong in her calculation. For instance, when she comes to the 28th of Oct., she says the month is finished, and the next day, really the 29th of Oct., she calls the 1st of Nov. She has been carrying on this misleading system for thirty years.

Several dements have come under my notice who, by some mnemonic memory, the rationale of which I could not penetrate, retained a perfect knowledge of the dates of

* "On the Intellectual Powers," 1831, p. 161.

great events, and could tell precisely the year, day, and hour, of a great battle or catastrophe, realising the ideal of Mumblazon in "Kenilworth;" but who had lost every connecting link or separating convulsion which could lead to, or suggest, the different points of time, or history, in their chronology. There is another and very opposite condition to that in which the circuits of the years leave no "footsteps on the sands of time," where there is an exaggeration, an imaginary extension, of years, even of centuries, through which reminiscence travels back, gathering up fragments as proofs and monuments of its vast duration and experience. In Melancholia this erroneous measurement of suffering may originate in the prolonged extension of one unvarying misery, and in the sustained concentration which the endurance of pain calls forth. In Monomania the conviction will proceed not from miscalculation, but from a delusion that the individual is divine, immortal, has died and risen again, is Methuselah, the wandering Jew, &c. This delusion is frequently met with in the first stage of General Paralysis. De Quincey* has described such fancies as concomitant with opium poisoning. "This, the expansion of space, disturbed me very much less than the vast expansion of time. Sometimes I seemed to have lived for seventy or a hundred years in one night; nay, sometimes had feelings representative of a duration far beyond the limits of any human experience. . . I ran into pagodas, and was fixed for centuries at the summit or in secret rooms. . . Thousands of years I lived, and was buried in stone coffins with mummies and sphinxes in narrow chambers at the heart of eternal pyramids." These, which may be legitimately called morbid impressions, must follow the long-continued saturation with the drug, as its ordinary effects are the extinction and forgetfulness of Time and space. We have had patients who witnessed the siege of Jerusalem, who fought at St. Jean d'Acre, who were crucified on Calvary, who had conversed with St. Paul; and one good humoured, ignorant sailor who, besides keeping time in the disposal of myriads of coils of unseen and intangible rope, dated his acquaintance with me, as a practitioner, a thousand years back in Memphis, and endeavoured to prove his assertion by enumerating the medicines which I had prescribed, and the cures which I had effected.

* "Confessions of an Opium Eater." Black, Edinburgh, 1866. Pp. 259, 268.

All I address must be familiar with "the measured tread of marching men," with individuals who walk a certain number, and always the same number, of steps in the same direction, and then return; who walk in circles or diagonally; who touch particular points or objects at given and apparently equal distances. In asylums they must have met with others who accompany such acts with certain sounds, songs, or musical accompaniments, thus extemporising some mental perception of measured intervals. A person long under my care always turned completely round in the same direction, rising on the same heel as a pivot three times before leaving an apartment. He is still alive, but has long since discontinued the practice. Another patient who, however, preferred carriage exercise, whenever he did walk strode forward in paces of exactly a yard in length, with a solemn or military cadence in the step. When he trod on carpets he invariably and carefully placed his foot on similar patterns at precisely the same distance from each other. A like custom is said to have been rigidly adhered to by Dr. Samuel Johnson, who in going up St. James' Street paced as if in the ranks of a regiment, touching every lamp post which occurred in his way.

I have at present under my care a young lady who presents the following outward and visible signs of some mental process involving a modification of the measurement of Time. Although seventeen, she has the aspect of thirteen years. She is slow, sluggish, and defective in mental activity. These symptoms offer the greatest obstacles to her improvement, but her most prominent manifestations consist in her touching every object, in repeating all her acts twice, or oftener; she repeats what is addressed to her and what she answers twice. She plays over the same tune twice; she often goes back two steps on the road, then dances forward to regain her position, and walks on. She will return to touch a point omitted in advancing. In reading she repeats the same word, or sentence; in her muttered soliloquies she may be heard going over the last question addressed to her, and in all these acts there is a perceptible rhythm and alternation. She is conscious both of her torpor and eccentric doings, and even laughs at their absurdity, but feels constrained to deport herself in the manner described. Similar movements, although complicated and in one sense obscured by more startling and significant symptoms, have been recorded in former times and upon a much grander scale.

A boy, æt. eight or nine, presented the following symptoms: — After suffering from various anomalous ailments, supposed to be nervous, he was seized with an involuntary and apparently uncontrollable tendency to leap. When attacked he threw himself upon all fours, and in this position leapt four times from left to right, and he emitted a loud inarticulate cry during each movement. The saltations were in rapid but regular succession, and this quadrupedal exercise was continued until interrupted by exhaustion, or the interference of those around. This case was examined by my colleague, Dr. Gilchrist, about the year 1855, in Montrose; and it is worthy of remark that in Forfarshire, about fifty years before, had occurred that singular epidemic the leaping ague, which was characterised, not merely by the performance of extraordinary and perilous feats, such as climbing trees, walking scatheless along the roofs of houses, in a manner which an acrobat might have envied, but by swinging rapidly and rhythmically round the beams of the house,like a fly-jack, upon which the epigastrium rested, forming the axis of motion. The disease was confined exclusively to females, and in certain hysterical women I witnessed many of the traces or remains of the epidemic in 1835. In one of these—a coarse but rather sensible person—the movements were rotatory and rhythmical, the feet being the pivot; they were entirely involuntary, and ceased only when vertigo, or loss of consciousness, supervened.

From a large number of instances of Trochaicism we select the following:—1. An idiot, who during his excited periods touches his knees with his right hand and lifts it to his nose regularly and rhythmically, at the same time uttering a whistling sound, with short intervals. The number of times he executes the motion irregular. 2. A dement, who plucks at his coat rhythmically, and who, at certain intervals during this act, touches his knee with his forefinger, or the button of his coat, or the top of his neighbour's head. He also touches the palmar aspect of the left index and middle fingers with the point of the right middle and index fingers successively, and at particular intervals touches certain parts of his head. The movements are, with little variation, performed ninety-two times in the minute. 3. An idiot moves fingers rhythmically backwards and forwards before his eyes. 4. A chronic maniac, who struck the palm of his left hand with the back of the fingers of the right, then with the front

of his right, then with the back of his right again, and then loudly with the palm of his right again. 5. A dement, who strikes the palm of his left hand with his first and second fingers thrice, and then with his forefingers only at the fourth beat. He then makes a contortion three times in succession. 6. A Religious Maniac in speaking moves incessantly, steps alternately from side to side, as in setting to partners in a quadrille. In most instances he takes three short steps to the right, and then as many to the left, and so on alternately. Occasionally, though comparatively rarely, a fourth step is taken. Each series of three steps was completed in three seconds on the only occasion they were timed.*

It is, of course, open to question whether the gyrations in the leaping ague, &c., were altogether independent of volition. My own experience would lead me to believe that at first, in the initiatory act, such movements are voluntary, but that ultimately, either from cerebral congestion and vertigo, or from some other cause, they pass beyond the control of the will and stand in the same relation to consciousness as the eccentric and grotesque attitudes in chorea, where muscular motion originates in volition, though its direction and continuance is regulated by other laws. A case has just been made known to me where a person labouring under organic disease of the brain moved the right arm round and round rhythmically precisely forty times per minute, and where the narrator designates the phenomenon "mechanical." This origin is "the some cause" alluded to above, or an occult, instinctive, measure of time, unknown to perception, except by its effects, which consist in successive contractions of the heart, alternate inspiration and expiration, the regular return of secretions, &c.; a sense which may have, rather than the vibration of the lamp in the Cathedral of Pisa, suggested to Galileo the law of oscillation, and the most perfect measure of time by the pendulum. That the leaping ague was more than a mere intense form of chorea may be gathered from the epitomisation of a typical and comparatively recent example. Besides the irresistible propensity to dance and whirl around, A. B. leaped upon the furniture of the room, ran round a table, sprang upon the top of the door to swing backwards and forwards, leapt over a staircase at one bound, and desired to spring out of a window, spoke in language which those

*Certain of these have been supplied by Dr. Aitken, Inverness District Asylum; and by Dr. Cameron, Med. Ass., Crichton Institution.

around could not understand, wrote from right to left, and both in speaking and writing transposed the letters of each word, so that the last became the first. *

Dancing was the characteristic of that epidemic madness which disturbed and desolated Germany, the Netherlands, and Italy during the thirteenth, fourteenth and fifteenth centuries. It is not necessary at present to distinguish the dance of St. Vitus, or St. Guy, from Tarantism, or the Tigritia of Abyssinia. In all of these affections, which spread to hundreds and thousands of the population, both Teutonic and Celtic, children and octogenarians, there were observed wild and exuberant excitement, delusion, and antipathies with uncontrollable impulses to run, leap, all such movements ultimately passing into dancing, which was generally aggravated, though sometimes mitigated, by music. These dancers were impelled, sometimes by imitation, sometimes by fanatical exultation, sometimes by terror and the fear of being poisoned, and it was when under the latter emotion that harmony seems to have been most powerful and curative. Airs have been preserved which were employed as antidotes in arresting or moderating the frenzied rotations and leaps of those urged on by dread of the bite of the Tarantula and by other causes; and that some interference was required is evident, for although large numbers of those affected recovered, many resisted all coercion, and danced themselves to death. These tunes which were regarded as remedial are said to have been of peculiar character, and to have contained transitions from a quick to a slow measure, and to have passed gradually from a high to a low key. The sensibility to music was so great that at the very first tones of their favourite melodies the affected sprang up, shouting for joy, and danced on without intermission until they sank to the ground, exhausted and almost lifeless. Although thus excitable, no external or audible music was requisite to suggest or sustain such movements. Apparently stimulated and guided by some internal rhythm, the performers danced, sometimes with infuriated, but always with measured steps, wheeling hand in hand in circles, not merely from street to street, but from town to town, dropping down when exhausted, but having their places supplied by fresh recruits. When under this inspiration the most rude and untrained victims exhibited gracefulness, even elegance, in the dances, and manifested disquiet and abhorrence when false notes

* Vide Crichton, "Edinburgh, Medical and Surgical Journal," vol. 31, p. 299.

were introduced into the music. Besides displaying unequivocal symptoms of insanity in various forms, and in the most fearful and formidable intensity, these sufferers presented various peculiarities which seemed to connect their condition with that known to exist in other psychoses, such as intolerance of certain colours, creeping on all fours like the Lycanthropes of the Jura, genuine choreaic gesticulations, touching particular objects four times in succession and at regular intervals, as was seen in the leaping ague. While we are altogether sceptical that the fantastic and fatal dances were caused by the bite of the Tarantula, and are somewhat doubtful as to the *ratio medendi* of the Tarantella, there is no doubt whatever that a wide-spread disease, marked by rhythmical movements and influenced by music, existed in Apulia, and it is not a little striking that, subsequently, the Asylum at Aversa in the same kingdom obtained great celebrity, which has outlived its cause, by the treatment of mental diseases by music, by swinging of the cots in which the patients were placed to and fro at measured intervals, and so on.

In modern times similar conditions have been treated by similar means. A. W., æt 22, was in 1816 seized with chorea. She struck the furniture violently and repeatedly; kneeling upon one knee she sprung up and struck the ceiling; to do this she rose 15 inches from the floor; she frequently danced upon one leg, holding the other with the hand, and occasionally changing the legs; subsequently her family observed that the blows on the furniture were more continuous, and assumed the regular time and measure of a musical air, and that her leaps were regulated by the succession of the strokes upon surrounding objects. Her lips were observed to move as if in harmony with her steps and strokes, and ultimately her progression became a graduated march, or resembled the figure of a minuet or of a country dance. A spectator conceiving that he recognised the tune imitated by her blows upon the door, table, &c., sung it, when she immediately began to dance, and continued to dance until he was exhausted. A drum and fife were now introduced, the sounds of which invariably induced dancing, and attracted her towards the instruments. Whenever she lost the step or a false note occurred, she ceased to move. She confessed to her medical man that a tune was ever present in her mind, and was occasionally so powerful as to compel involuntary movements. It was discovered that when the drum was beat

in a continuous roll, instead of a tune, the motions instantly ceased, and this interruption to the morbid associations, upon which the disease was supposed to depend, having been transferred to the commencement of each attack all involuntarily action was at last permanently arrested. It is noteworthy that when pacing in her stately manner each stride placed the foot upon the joinings of the stone flags, particularly when she looked downwards.*

That, apart altogether from the measurement of intervals by the aid of successive mental states, or a special faculty, and likewise apart from all morbid exaltation of such means, there exists in the healthy and robust mind a certain rhythm, might be demonstrated in various ways, but I shall content myself with the following illustrative narrative:†— "Mezzofanti had the habit of thinking, when alone, in each and all of his various languages in succession, so that, without the presence of a second individual, he almost enjoyed the advantage of practice in conversation." The only parallel for this extraordinary mental phenomenon, that I know, is a story which I somewhere read of a musician who attained to great perfection as an instrumental performer, though hardly ever known to touch an instrument for the purpose of practice. This man, it is said, was constantly practicising in his mind, and his fingers were actually observed to be always in motion, as though engaged in the act of playing.

About twenty years ago there was placed under my charge a gentleman whose proteiform malady presented many of the features which have been described. J. M., æt. 37, an officer in the Austrian army, who had five brothers or sisters of unsound mind, was supposed to have induced mental unsoundness by gross debauchery. He laboured at one time under violent mania; then under panphobia, in violent paroxysms; then under partial fatuity, with delusions. He was attacked repeatedly by epileptiform convulsions; he was cataleptic, holding the hands upright, or in some awkward position for long periods; he was choreaic when he tossed from one side to another, assumed absurd and dangerous attitudes; he was in the habit of executing repeated summersaults; he was subject, before or after fits, to symmetrical movements of the arms and head, synchronous with respira-

* Transactions of the "Medico-Chirurgical Society," vol. 7, p. 519. Dr. Kinder Wood.

† "Life of Mezzofanti," p. 477.

tion, striking his chest with each hand alternately, and at regular intervals; and frequently, when not excited nor comatose, his fore-arms revolved round each other with a rapidity and force which could with difficulty be checked. The circular action was renewed whenever the obstacle was removed, and was at all times regular and rhythmical in interval. He appeared constrained to imitate the gait and manner of those around, and gave way to loud vociferations or ullulations.

I would not venture from the preceding narratives to draw dogmatic conclusions, but conceive that from them, and from collateral considerations, we are entitled to infer that, as the subjective measurement of time occurs in imperfect and rudimentary minds, and instinctively, it cannot depend upon any act of consciousness in noting the succession of mental states, although the phenomena of abstraction, concentration, mono-ideism when the mind is fixed upon one particular object, as then all conception of the passage of time is shut out, appear to countenance such a supposition. 2ndly. That the condition and the confession of the choreaic A. W., the accurate and graceful dancing of the deaf and dumb, &c., set aside the hypothesis as to the regular succession of external impressions; and 3rdly, that the bearing of all these observations would induce a belief in the existence of a time-perceiving and time-regulating power, either created and conducted by some physico-psychical operation, or by intuitions similar to those which recognise the relations of number, &c., and which certainly depend upon the integrity and activity of the whole, or of a part, of the nervous centres.

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

(*Continued from page* 222.)

VI. Cassandra.—The Fragments.

The seclusion in which the women of Athens lived naturally made the elder dramatists shrink from exhibiting them on the stage as under the influence of violent passion. Euripides departed from this rule, and was lashed for it by his merciless satirist; but even he, who depicted a Medea and a Phædra, did not venture to bring a raving woman before his audience. There was just one case in which the Greeks would not be justly scandalised by such a presentment—

where madness was supposed to be supernatural in its origin, and consecrated by religion, and an instance of this has been happily left us in the *Bacchæ*. My readers have been made acquainted with that beautiful sketch of an epidemic of religious insanity, and I have now to describe an incidental portrait of a "wise woman," when the spirit of prophecy is upon her, and she speaks as one raving, yet possessed by the God.

Cassandra is one of the saddest figures of Greek legend, and the faint lines in which she has been sketched add a mystery to the gloom that surrounds her. But, as being the heathen counterpart of those seers of the people of God upon whom had been laid the burthen of prophecying in vain to a doomed city and to a faithless race, her story contains elements of perennial truth and beauty, which made her a fitting subject for the tragic muse.

She is thus introduced as one of the most important characters into the *Agamemnon* of Æschylus. When taken captive after the siege of Troy, she had fallen to the lot of the king of men, and accompanied him to his Argive home. Clytæmnestra urged her to follow Agamemnon into the palace, but she remained without, absorbed in silent grief, and when at last the traitorous wife left her alone with the Chorus, she breaks into a wild cry of woe and anguish, calling upon Apollo, and accusing him as the author of all her ills. At first the Chorus endeavour to soothe her, but they soon perceive she is about to prophecy; she discerns that she has come to a dwelling stained already by many fearful deeds of blood; and then, in wild and hurried metre, and in mystic language, she foretells Agamemnon's impending doom:—He has been caught in a net; the cow has taken the bull in a snare, and is about to slay him; and next she laments over her own fate. The Chorus break in with—

> "As one that raves, and yet divinely urged,*
> Thy doom thou mourn'st, in notes unmusical;
> Like that dun bird, insatiate of song,
> The nightingale, that 'Itys,' 'Itys,' cries,
> Lamenting, with clear note, the sorrows of her life;"

But she continues in a still wilder strain; she sees the Erinyes sitting on the house-top and chanting the curse that has been laid on it of old; and she appeals to the truth of this as a proof that what she now foretells shall surely

* *φρενομανὴς τις ἔτι θεοφορήτος.*

come to pass. As Plumptre remarks, the Chorus recognise her *clairvoyance*, in seeing the past tragedies of the family of Atreus; but while they hesitate and question her, she cries out that the dread burthen of prophecy is again tormenting her; the foul deeds done in that house are now more plainly shown to her. "Like the phantoms of dreams," she sees the children of Thyestes, who had been served up as a banquet to their father in that very dwelling; they are seated on the roof, having their entrails and "the meat of their own flesh" in their hands. In this a return has to be made to her master; the destroyer of Troy knows not what the false-tongued woman means who will presently murder him. The Chorus do not understand her even yet, and when she tells them plainly that Agamemnon is to be slain, still continue to question her, until she breaks out, for the last time, with —"Alas! what fire is this? It rushes on me"—and proceeds to foretell her own death. She has prophecied for the last time; she casts away her soothsayer's fillet and wand, and, though she is full of womanly shrinking from the place of blood, and from the loss of that life which is so sweet, there is no more wailing or excitement, but she goes into the palace to meet her end with a calm dignity which might be looked for in the daughter of a great king.

I have given a very meagre outline of this grand episode, which occupies two hundred and fifty verses of the *Agamemnon*, but I think something of the beauty of the original must be seen even through my inadequate description. The best proof of the esteem in which the ancients held it is to be found in the imitations it produced. Euripides was bold enough to challenge a comparison with his great predecessor by bringing Cassandra on the stage in the *Troades;* but his prophetess is tame and feeble compared with her of Æschylus; she begins, indeed, by prophecying in ordinary iambics, but soon, passing into an involved argument, she deliberately says—"Though inspired, I will cease my ravings awhile;"* as if (Paley remarks) it were a controllable impulse, and not an inspiration from heaven. The Latin imitators are better, though the fragment preserved by Cicero hardly seems to deserve his praise. Seneca errs, as usual, on the side of exaggeration: he makes the Cassandra of his *Agamemnon* a character of more importance than Æschylus does, and she

* . . . . . ἔνθεος μὲν, ἀλλ' ὅμως
τοσόνδε γ' ἔξω στήσομαι βακχευμάτων.

is made to appear more actively insane;* but his raving prophetess is as inferior to the Greek presentment as a statue of Bernini's is to one by Michael Angelo.

As far as I know, there is only one classical portrait of the kind which can at all compare with the Agamemnon; and that is a mere sketch. The Cumæan Sybil of Virgil is drawn with such a finished grace that I cannot help transcribing the few lines in which her prophetic "afflatus" is described—

> "Ventum erat ad limen, cum virgo, "poscere fata
> Tempus," ait, "deus ecce deus;" cui talia fanti
> Ante fores subito non voltus, non color unus,
> Non comptæ mansere comæ, sed pectus anhelum,
> Et rabie fera corda tument, maiorque videri,
> Nec mortale sonans, adflata est numine quando,
> Jam propiore dei." †

The literary excellence of Æschylus's description is owing to its fidelity to nature: and this is why I look upon it as most important to my purpose. I take it that in this splendid scene (which Müller calls, "the most thrilling perhaps that ever emanated from tragic art") ‡ we have a picture, drawn from real life, of a woman suffering from religious mania, and venerated therefore as a prophetess.

It would be impossible for me to enter seriously here upon the large question of the way in which the ancients looked upon madness as a supernatural state; I am, therefore, obliged to pass over much that is curious and interesting, in the hope of being able to return to it at some future time. When remarking on the *Bacchæ*, I have already dwelt on another side of this subject, and I may observe that here, as

* Thus she breaks out with—

> "Cui nunc vagor vesana? cui bacchor furens?
> Jam Troia cecidit falsa, quid vates ago?
> Ubi sum? Fugit lux alma et obscurat genas
> Nox alta, et aether abditus tenebris latet.
> Sed ecce! gemino sole praefulget dies
> Geminumque duplices Argos attollit domos."

She sees the fall of Troy acted over again, and foretells her own approaching end; at last she falls down exhausted, and the Chorus exclaim—

> "Jam pervagatus ipse se fregit furor,
> Caditque, flexo qualis ante aras genu
> Cervice taurus volnus incertum gerens.
> Relevemus artus entheos—"

But she continues to be so persistently noisy and violent that one can hardly help sympathizing with Clytæmnestra, who stabs her at last with a—"Furiosa, morere."

† Aen: vi., 45-51.

‡ Paley: Note on v. 1039 of "Agamemnon."

usual, Plato is the best interpreter of the tragedians. I quoted a passage from the Phædrus in which he makes Socrates say that "there are two kinds of madness—the one caused by human disease, and the other by a supernatural disturbance of the ordinary mode of life." He goes on to say:—"Of the divine kind we make four divisions, according to the gods that produce it: assigning the inspiration of prophecy to Apollo, the knowledge of mysteries to Dionysius, poetry to the Muses, and to Aphrodite and Eros we ascribe the fourth, which we call the madness of love, and the highest of all."

Not to multiply quotations on an endless subject, I will only remark that Cicero has also put the popular view into the mouth of his brother, in the first book of his treatise "de Divinatione," although he combats it afterwards; and his chief example of this kind of prophecy is "Cassandra furens."

When this was the teaching of poets and philosophers; when Delphi and Dodona, Delos and Patara, and many another shrine were thronged by men anxious to learn the secrets of the past or the future, what wonder that women were ever to be found to suffer this divine madness? The marvel rather is, that the mischief was so long in attaining the gigantic proportions it reached at last during the decay of paganism. The contagion of prophetic madness had by that time spread from hysterical girls and women to the other sex, particularly among the excitable Asiatics and Africans; "fanatici" and "theoleptici" used to live about the temples, inhaling the odour of the sacrifices, and prophecying with strange contortions and violent excitement.*

I can only refer in passing to another cause of temporary insanity which sometimes, at least, seems to have been at work. I mean the drinking narcotic potions, or inhaling medicated vapours, which, in predisposed persons, would, no doubt, contribute powerfully to disturbing the reason. Such is the most probable interpretation, as it seems to me, of the tales of the vapour which rose from the earth at Delphi, and of the various drinks which were given to the soothsayers before they prophecied.†

* Perpetual shaking of the head (apparently involuntary) seems to have been a usual habit of these "fanatici," according to Quinctilian (11. 3. 71) and the lawyer Ulpian (Dig. 21. 1. 1. 9). For further information, see Döllinger, "Gentile and Jew," ii., p. 182.

† The similar employment of drugs in the magic of the East and of mediæval Europe is well known. As to Delphi, St. Gregory of Nyssa speaks of "a certain prophetic water, producing wanderings and ravings (*παραφορὰς καὶ μανίας*) in those who tasted it."

Besides these there must have been numerous cases of more or less deliberate imposture, which must have been very common, especially when soothsaying came to be a profitable occupation, as in the instance of the divining girl at Philippi in the time of the Apostles, who brought in much gain to her masters, just as a "medium" might do now.

The maxim of the Greek philosophers that no one prophecied unless he was beside himself, and knew not what he was saying,* was so fixed in common belief that Christian orators† were able to appeal effectively to the contrast of the prophets of the old and new law, who spoke as reasonable men, knowing what they uttered.

But I am wandering too far from my text, and must begin my examination of the lost plays of the tragedians.

As far as I can judge from a rather cursory examination of the voluminous fragments of Euripides, we do not seem to have lost anything of his which would have borne upon my subject, and even those lost plays which appear at first sight to have dealt with madness give me nothing to quote, not even hints that they would have been interesting to us if preserved. My curiosity was most excited by seeing in Aristophanes that Euripides had taken Bellerophon as the theme of one of his tragedies; for this hero was the type of a melancholic patient, "seeking desert places, whence the lines of Homer—"

> "But when he was hated of all the gods,
> He wandered indeed alone over the Lycian plains,
> Eating his own heart, avoiding the footsteps of men."‡

But I have been unable to find any description of this scene, which would have been the more valuable to me, because unique in Greek tragedy.

The case is very different with Æschylus and Sophocles; amongst the large number of their lost plays,§ there must have been several of equal interest with any that have been preserved to us.

* Plato Apol. Soc., p. 22. Timaeus, p. 71. The Peripatetic school which took the more modern view, that the "Sibyls and Bacchæ and diviners" were merely insane (Problem xxx.) never had any popular following until Christianity prevailed. They attributed the soothsaying faculty to the melancholic temperament (Cicero de Div., i., 81); possibly from the abstraction in which melancholic lunatics are plunged, and their use of mysterious phrases.

† S. Joan Chrysost. Hom. in Ps. xliv., and in i. Cor., xxix., 1.

‡ Aristot., Prob. xxx. Cicero Tusc. Disp. 3. 26. 63.

§ I have followed the arrangement of Ahrens as being the most recent and the clearest.

Æschylus had treated dramatically two subjects, which I have already described, and which I need not now dwell upon. The story of Ajax afforded him materials for a trilogy, of which only the barest outline is traceable in the fragments of his Latin imitators. He appears to have represented the violent delirium which fell upon Ajax after the adverse decision as natural, and not the act of Athene, as Sophocles preferred to consider it. One of the Fathers has preserved a fragment of his last words before committing suicide; they show the way in which this part of the subject was the same as that of Sophocles—

> "There is no sorrow that can sting the soul
> Of any free man like unto disgrace.
> Thus have I suffered, and a stain profound
> Of trouble surges from this inmost breast
> Of mine, that bitter goads of madness roused."

The tale of Pentheus and the Bacchæ was described by Æschylus in another trilogy; the first two plays treated the subject much as we have seen in Euripides; but the last took a different line. Pentheus does not appear to have been insane at all, as is the case also in Ovid's description, but *Λύσσα*, the Genius of Madness, was personified, and possessed the Bacchæ. Suidas, who tells us this, has preserved these words of *Λύσσα*, describing the working of the spell—

> "From the feet
> Up to the very crown convulsion spreads,
> Like to some snaky sting or scorpion's dart."

A similar subject was handled by him in those plays which described how Lycurgus, a King of Thrace, was punished by Dionysius for a like contempt of his divinity and worship. It would seem that here the culprit was himself struck with madness, and slew his son; but we know so little of the story—the Homeric form of the legend being apparently different from that current in Attica—that it is only of interest as corroborating what I have before remarked of the opposition on the part of the rulers and statesmen of Greece to the introduction of this Oriental form of worship, and of the fate which they brought on themselves by it.*

* The legend of Orpheus (which seems to have been related by Æschylus in this play) tells in the same direction. It is significant that the scene of all these struggles should be laid in Thrace; and this is perhaps the reason why Homer's account (Iliad vi., 130 sqq) takes more thoroughly the part of the god than the tragedians do.

There were two more instances of violent insanity among the ancient Greek legends, Athamas and Alcmæon ;* both of these were taken as subjects by the tragedians; but I will merely give an outline of them, as we have nothing left of the plays themselves.

Athamas was a King of Bœotia, who incurred the hatred of Juno by taking charge of Bacchus, and concealing him from her wrath. She struck Athamas with madness, so that he supposed the palace to be a wood, and his wife and children a lioness with her cubs. He bade nets to be set for their capture, and gave chase himself, but his wife, Ino, threw herself from a rock into the sea with her son, and so escaped from his hands. It is supposed that Ovid, in his elegant description, probably followed Æschylus's version of the fable, and I therefore have sufficient excuse for quoting some fragments of a passage which abounds in matter of value to me. Juno is thus described as determining on what punishment she shall inflict on Athamas and Ino by Bacchus' own chastisement of Pentheus:—

> "Ipse docet quid agam ; fas est ab hoste doceri,
> Quidque furor valeat. Penthea cœde satisque
> Ac super ostendit. Cur non stimuletur, eatque
> Per cognata suis exempla furoribus Ino?"

She goes down to the infernal regions, and entreats the Erinyes to help her, and Tisiphone accedes to her prayer. She ascends to the palace of the doomed king—

> "Luctus comitatur euntem,
> Et Pavor, et Terror, trepidoque Insania voltu."

She seizes two snakes from her hair, and casts one at Athamas and the other at Ino—

> "At illi
> Inoosque sinus, Athamanteosque pererrant
> Inspirantque graves animos ; nec volnera membris
> Ulla ferunt ; mens est, quae diros sentiat ictus.
> Attulerat secum liquidi quoque monstra veneni,
> Oris Cerberei spumas, et virus Echidnæ ;
> Erroresque vagos, cæcæque oblivia mentis,
> Et scelus, et lacrimas, rabiemque, et caedis amorem ;
> Omnia trita simul ; quæ sanguine mista recenti
> Coxerat aere cavo, viridi versata cicuta.
> Dumque pavent illi, vertit furiale venenum
> Pectus in amborum, praecordiaque intima movit."

* "Athamantem, Alcmæonem, Ajacem, Orestem furere dicimus." Cicero's Tusc. Disp. 3. 5. 12.

† Metamorph iv., 428. 504

I need not give the rest of the description of the violence of Athamas, which seems to have resembled that of the *Mad Hercules;* it is admirably described, and Ino finally, "vires insania fecerat," throws herself and her child headlong from a projecting rock.

Alcmæon seems to have been a second Orestes; he slew his mother Eriphyle at the command of his father, whom she had betrayed to destruction in the Theban war. He was consequently pursued by the Furies, and driven by them to madness; the rest of his legend is variously related, and has no special interest for us. The two plays in which Sophocles described the adventures of this hero are completely lost, enough only being preserved to show that they would have been to my purpose. The mania of Alcmæon seems to have been represented as relieved by sleep, and by the loving care of a devoted wife, which probably suggested the similar scene in Euripides' *Orestes*, if they were not themselves derived from the *Alcmæon* of Theodectes, an earlier tragedian.

The lost plays which I most regret are those which described the feigned madness of Ulysses, when Agamemnon and Menelaus went to Ithaca to claim his promised help for the siege of Troy. Those versions of the tale which have reached us relate that Ulysses was found ploughing with a horse and an ox yoked together, and sowing salt instead of corn. The trick was detected by Palamedes, who (it is usually said) took Telemachus from his cradle, and placed him before the plough, when the father turned aside to avoid his child. The other account given, that Palamedes threatened to kill the infant, would probably commend itself to us as a more suitable method of diagnosis; but the whole story, as it is told, is one of a very poor imitation of insanity, and much inferior to King David's simulation as recorded in Scripture. It is, however, conceivable that if these tragedies had been left to us we might have found that Ulysses' actions were the expression of some pretended delusion, but we have not even a fragment to go by—"etiam periere ruinæ." We only know that if Sophocles bestowed upon the central figure of his *Mad Ulysses* anything like the care with which he has drawn the character of the same hero in the Philoctetes, our loss is great indeed.

I have now—fortunately, perhaps, for my readers—finished my examination of the Greek tragedies; but I have run to such length that I am compelled to hold over my account of Aristophanes for a future number.

Four Departmental Asylums in the North-West of France.

By J. Wilkie Burman, M.D., Edin., Resident Physician and Superintendent, Wilts County Asylum.

In the course of a walking tour, during last summer, I visited, *en route*, four of the Departmental Lunatic Asylums in the North-West of France, principally with a view to see how they would stand comparison with our own Provincial or County Asylums. Such a comparison, however, could scarcely, I find, be made on a fair basis; for though, undoubtedly, the great majority of the patients in the French Departmental Asylums are paupers, and maintained at the expense of the several Departments, yet, in all, there are associated with these paupers large numbers of *pensionnaires*, who are maintained by their friends and divided into four or five classes, and treated according to their rate of payment. It is obvious, moreover, that the better general and special arrangements, due to and supported by the higher rates of payment of the *pensionnaires*, would prevent such associated asylums as these from being fairly compared, as to their *tout ensemble*, with our own County Asylums—in which, as a rule, the patients are all paupers, and chargeable to the different unions, and in which the arrangements are for paupers only, and so constituted as to keep the maintenance rate as low as is compatible with efficiency. Seeing, then, that it was impossible to institute any fair general comparison between the French Departmental Asylums, which I lately visited, and our own County Asylums, I determined, whilst not failing to pay all due regard to the arrangements for, and treatment of, the *pensionnaires*, to pay more particular attention to the condition and treatment of the *pauper* patients in the Asylums visited, and to take my notes accordingly. These rough notes, instead of consigning them to the waste paper basket, as has been the fate of former notes of visits made by me to Continental Asylums, I have, this time, determined to offer to my professional brethren, in the hope that they may afford, perhaps, some few crumbs of information and of interest. It will be necessary for me, however, before going further, to state—that, as the principal object of my tour was *walking* and not *mad-house hunting*, I did not follow out any predetermined plan as to which particular asylums I should visit. Indeed, it was not until I had well started on my tour that I conceived the laudable idea of

endeavouring to combine a little instruction with my amusement, and the result was that I merely visited those asylums which were in close proximity to the route which I had arranged for myself previous to starting. The asylums to which I paid these hap-hazard visits, then, were the following:—1st, "*L'Asile de Lèhon,*" Dinan; 2nd, "*L'Asile St. Athanase,*" Quimper; 3rd, "*L'Asile St. Méen,*" Rennes; and 4, "*L'Asile de Pontorson,*" situated in the small town of that name; and I shall record my notes of them, *seriatim,* in the order in which they were visited.

L'Asile de Léhon, Dinan.

This asylum, often called *l'Asile des Pères* or *l'Hospice des Frères de Saint-Jean-de-Dieu,* is pleasantly situated on the slope of a hill commonly known as "Mt. St. Esprit," to the left of the road to Brest, at the distance of about one *kilomètre* from Dinan. Having ascertained the evening before at the entrance lodge that the chief medical visit of the day was made at 7.30 *a.m.*, I got up in good time, in order to be able to make the full visit with the *Médecin-Directeur.* The building, the first stone of which was laid in 1836, is principally composed of Caen stone with granite facings, and in the distance presents a plain, solid, and prison-like appearance. The reception a stranger meets with at the lodge of entrance when he merely wants information (as I did the evening before) is, also, not altogether devoid of certain prison-like features. The external face of the lodge presents itself simply as a plain non-fenestrated gable-end with a door, in the centre of which is a small square hole screened with open Venetian lattice work arranged for hearing through, without its being possible to see through it. Instead of the door being opened when one knocks—the knocks reverberating as if the interior were a cavernous recess—one is rather surprised to hear, on the approach of a certain measured and manly tread along the stone floor towards the door, a rough voice which firmly, though politely, demands "*qui va là?*" and "*que voulez vous, Monsieur?*" On making known your wants, the desired information issues forth to you through the lattice work; then the measured tread recedes from the door, and you depart, having received your information certainly, but without having been able to see the face of the mysterious unknown, and feeling, perhaps, a little depressed at your rather austere reception. Such a gloomy barrier of entrance as this to an asylum only

tends to invest the whole place with an air of mystery and suspicion, and to impress one with an idea of utter seclusion from the outer world as regards the poor beings known to exist within the walls of the asylum; and it might, with much advantage and benefit, be altered or replaced by something more cheerful and homely. Like Death, however, it is the gate of Paradise; for, once through it, one approaches the asylum by a winding walk, of more than a furlong in length, which wends its serpentine course down the slope of the hill through extensive grounds most beautifully wooded and laid out. Intersected by numerous open and shaded promenades, the fifty acres of land, within the enclosure around the asylum, present to us Nature in a gorgeous and varied aspect. Here an expanse of beautifully green mead; there a narrow winding shaded walk up the slope of a little hillock towards its wooded crest; here and there *parterres* — huge *bouquets* in themselves,—and now and then glimpses through the trees of extensive kitchen gardens, more useful if less beautiful. After a pleasant walk through the grounds and on nearing the asylum, it is found to be a huge square-shaped block of buildings, with enclosed quadrangular inner airing courts and yards. Uniformly of two stories high, the sky-line is unrelieved, except by the towers of the new chapel inserted in the central part of the west end of the block. This chapel is one of the most beautiful and peculiar features of the asylum. Projecting as they do considerably, the towers and western porch of the chapel tend to relieve the monotony of the general *façade* of the asylum. It is built within and without entirely of grey granite, a quarry of which, worked by the patients, exists in the grounds close to the asylum. It is of the purest Gothic architecture, and built on a cruciform plan, each limb of the cross being nearly of equal length, and the interior being very lofty. It was only finished and consecrated in 1866, and though but of such a recent date, yet it is well known by those who have travelled much on the Continent, to be one of the most perfect, faultless, and beautiful little chapels in Europe, and no person visiting Dinan should fail to see it. Dinan would be worth visiting for this alone, to say nothing of the delightful and charming sail up the Rance from St. Malo, and of the picturesque ruins round about the town. I forgot to ask how many persons the chapel would accommodate, but I should say, from memory, that it would comfortably hold about from 300 to 350 patients in its nave,

body, and transepts. The great *rosace*, or wheel window in the west-end, twenty-five feet in diameter, is composed of twenty-four compartments, most gorgeous to look upon, the colours being arranged with most exquisite taste. It is a perfect blaze of brilliancy, but soft and mellow therewithal, the effect of the colouring being heightened and rendered more impressive by its contrast with the dead grey colour of the granite everywhere within, and the dim religious light of the general interior of the building. The transept windows are also most beautifully stained. I have seen the stained glass in the *Notre-Dame* of Paris, and in the Cathedral at Cologne, and I believe that the stained glass in these cathedrals, as well as at Rheims, is considered amongst the best in Europe; but it is equalled, if not surpassed, in this beautiful little Asylum Chapel in an outlying province of France. The transepts are railed off from the body of the chapel by light ornamental iron screen-work. There are some nicely carved stalls in the choir for a number of the brethren —*les frères de Saint-Jean-de-Dieu*—about 60 members of the brotherhood of this religious order living in retirement within the walls of the asylum, and devoting their life and energies (gratuitously, of course), in an admirable and praiseworthy manner, to the care of the afflicted inmates. This chapel probably owes its existence to the energy and religious enthusiasm of the brothers, which would meet with ready support in a province of France, so deeply imbued with religious sentiment, and so much famed for the beauty of its churches; and, altogether, its faultless design, as well as the beauty and good taste of its illumination, have left a lasting impression on my mind. With a well-appointed ritual, a choir of earnest *religieux*, and a body of sympathetic and attentive patients, the ordinary services in this beautiful little place of worship must be very effective and impressing. Before I leave this chapel, on which I am afraid I have been tempted to dwell too long, I may state that it is, as is customary outside the asylum, left open during the day, in order that the brethren, and such of the patients as are to be trusted, may enter and engage in short private devotion, when so disposed.

This asylum provides accommodation for the *male* insane of the departments—Côtes-du-Nord and Morbihan; the sister asylum, for the *female* insane of the same departments, being situated at St. Brieuc, about forty miles westward. The number of patients in the asylum at the time of my visit was 600, about 400 of whom were paupers, and main-

tained at a cost of about 1fr. *per diem*, the remaining 200 being *pensionnaires*, and divided into three classes according to the rate of payment which was—for the 1st class, 4fr.; 2nd class, 3fr.; and 3rd class 2fr. *per diem*. Besides these there were a few "*pensionnaires particuliers*," who paid from 8fr. to 10fr. *per diem*, and each of which had two rooms at his disposal, as well as a *religieux* and domestic attached to his service. On arriving at the door of the asylum, I was informed by one of the brothers who acted as janitor, that the *Médecin-Directeur*—Dr. Richard—was already in the Infirmary Ward, just commencing his visit. On being conducted thither, and my card having been presented, the first words of Dr. Richard, on greeting me, were rather pleasing and flattering; for they were, "*Je connais l'Asile des Alienées de Wakefield par son ouvrage.*" We immediately set off on the visit, accompanied by two of the brothers, one of whom acted as a chief attendant, whilst the other, who, I was informed, was also the dispenser, carried a book, in which he took down carefully the doctor's instructions. Both of these brothers, Dr. Richard told me, were skilled nurses, having had special instruction as well as special training and experience during the late war, when one of them had the honour of being Marshal MacMahon's nurse, whilst he was laid up with the wound inflicted on him at Sedan. It was highly gratifying to me, though not, of course, surprising to see how intelligent and thoughtful these brethren were in the performance of their duties, and what a real interest they took in the patients. About 60 of these brothers, as I have said, assisted by 39 domestics, look after the 600 patients, and do the work of the asylum. The members of the brotherhood are evidently strict recluses, being habited in coarse cloth monkish robes, and having little to say beyond what concerns their charge. I saw one brother in the grounds, as I passed down, shovel in hand, supervising and directing a gang of patients at work on the walks.

But to return to my visit to the wards. The Infirmary ward was airy and clean, and the cases in it, viz., two or three cases of diarrhœa and one or two cases of phthisis, comprised all the present sickness of the house, which, to use Dr. Richard's own words, was "*en très bonne santé.*" Passing through the Infirmary ward, we entered a day-room appropriated by patients in the last stage of general paralysis and of chronic disorganisation of the brain. About a dozen in number, the most of them sat in commodious arm chairs,

and five or six of them were secured in their chairs, by means of a strap passing in front of their waist, and had their arms encased in stout blind canvas sleeves, the ends of which were secured by a string tied around them and the waist. Some of them were covered with a clean white sheet up to the neck as they sat restrained in their chairs; and altogether, though the patients were tolerably quiet, it was rather a melancholy spectacle. Passing on, I found as we went along that the patients were classified and arranged in wards according as they were quiet, excited, or epileptic, &c. In the wards of "*les agités*," and of the epileptics, I found the poor, as a rule, shabbily clothed, and many of them very untidy and looking desolate and miserable; several of them were walking about with their arms confined in light canvas strait-waistcoats. "*Il déchire*," the doctor said, as I examined more minutely the article of restraint in one case, as if the only way to prevent tearing was to make a walking-mummy of a man. All the poor wore *sabots* without stockings; but some of them had put a lining of straw into their wooden shoes. Mixed up with the paupers, who were not uniformly dressed, were the poorer *pensionnaires* in all sorts of clothing. With the exception of central plots of chestnut trees to give shade from the sun, most of the airing-courts were small, bare, and unplanted—even with grass. The dining and sitting-rooms of the poor were bare and dreary looking. The dormitories, everywhere, were nice, airy, and clean, the floors being waxed and the walls whitewashed, and each bed consisting of a hair mattress and a straw palliasse. The arrangements for the *pensionnaires* were excellent; their *réfectoires* and sitting-rooms being cheerful and well furnished. I saw a very good billiard-room appropriated to their use, and in their rooms were plenty of draughts and dominoes and some books. I was told there was a library, but did not see it. The only three journals taken by the house were in one of the day rooms of the *pensionnaires;* they were fixed in wooden slips with handles, and secured to the table, on which they were placed, by slight chains. The general bathing arrangements were excellent, and consisted of a long associated bath-room, in which was a row of about twenty unfixed and painted metal baths, at the head of each being a douche apparatus. There were no patients in the baths at the time of my visit, but I was told that warm baths and cold douches were frequently used as remedial agents. At one end of

this long bath-room there was a smaller room, containing a needle bath and a closed wooden chamber for simple or medicated vapour bathing; whilst at the other end were some single bath-rooms for the higher paying *pensionnaires*. Towards the end of our medical visit we met the Assistant Medical Officer, who was about to go round the wards to attend principally to cases which might require *surgical* treatment, which branch of the treatment Dr. Richard, being a physician, left to his assistant who must necessarily be a surgeon. Leaving him and the two brothers to continue the ward visiting, Dr. Richard and myself went to inspect the kitchen, chapel, and outlying buildings, &c. The kitchen was very good, but called for no special remark, though, whilst speaking of the kitchen, I may as well state that the diet of the paupers consists of three meals—in the morning, soup and bread; at mid-day, soup, meat, and vegetables; and in the evening, soup, vegetables, and bread. I saw all the usual workshops with their complements of patients. In the large granite quarry near the asylum, I saw many patients at work, and from the bed of this quarry most of the water supply of the asylum is derived. The amount of land attached to the asylum is large—amounting to 200 acres in all, about 150 of which is farm land, and gives employment to about 80 patients daily.

After finishing the visit, Dr. Richard took me through the grounds to his house, which is a nice detached building at the far corner of the grounds and close to the main road to Brest as it passes the Asylum grounds; and over some good Bordeaux with him in his study, as well as during the progress of my visit to the wards, I obtained the following disjointed information concerning the asylum, for which, and Dr. Richard's kindness and courtesy generally, I must here acknowledge my sincere thanks. The *religieux* are, of course, simply clothed and fed. The paid domestics are but poorly remunerated as compared with our attendants, getting only, in money, about 20fr. a month. The total number of general paralytics and of epileptics in the house at the time of my visit was 20 of the former, and 32 of the latter. About one-sixth of the asylum population suffered from insanity due to alcoholic excess, cider being the most common drink, next brandy, and last, among the rich, *absinthe* and other spirits. The recoveries are about 15 per cent., and the deaths about 10 per cent. on the average numbers resident. Referring to the small pro-

portion of recoveries, Dr. Richard remarked that they had in the asylum much insanity of an incurable nature, especially amongst the *pensionnaires*, many of whom have made divers sojourns in various asylums. The medical staff consists of a Médecin-Directeur and a Médecin-Adjoint, the former getting, as pecuniary remuneration, 4,000fr. *per annum*, and the latter just half that sum. Two medical visits are made daily. According to Dr. Richard, the hydrotherapeutic treatment of insanity is most beneficial, and the drugs he principally uses, and from which he has derived most benefit, are opium and its derivatives, aloetic purgatives, bromide of potassium as an anti-epileptic and "contra-stimulant," and the hydrate of chloral, which he says has given him most excellent results. Before I left, Dr. Richard informed me that he was engaged in working up the subject of the temperature of the insane, and that, according to his observations, the mean temperature of the healthy lunatic is *above* that of the ordinary sane person.

L'Asile St. Athanase, Quimper.

This Asylum is a plain building, situated behind the *Hospice Civil*, on an elevated piece of ground, at a distance of about ten minutes' walk eastward from the fine Cathedral of Quimper, which town, by the bye, is the birth-place of the great Laennec, and contains, in its chief *Place*, a magnificent bronze statue of the celebrated inventor of the stethoscope; he is represented as seated in his professorial chair in academical costume, divers books on auscultation being visible, under the chair, in graceful disorder, and one of his old fashioned stethoscopes being in his hand. This asylum gives accommodation to the *male* lunatics of the Department of Finisterre, the sister establishment, for the same department, being situated at Morlaix, about 60 or 70 miles north. The number of patients in the asylum, at the time of my visit, divided into classes, according to their rate of payment or maintenance, was as follows:—

1st Class	... 8	...	3·33fr. per diem.
2nd Class	... 8	...	2·50fr. „
3rd Class	... 14	...	1·66fr. „
4th Class, Paupers	320	...	0·90fr. „
Total	... 350		

Having previously ascertained the hour of the medical visit,

I presented myself at 7 *a.m.*; and, in the absence of Dr. Baume, the Directeur Médecin-en-Chef, who was confined to his house through illness, I was conducted round the asylum and had every courtesy shown me by the Assistant Medical Officer, M. Deberiat. The Medical Superintendent has a large and handsome private detached house in the grounds, with spacious private flower and kitchen gardens attached. We first inspected the grounds and outlying buildings. Within the walls, and around the enclosed land, which is considerable, runs a boulevard, well lined by chestnut trees, and having seats here and there in the shade. From this boulevard magnificent views of the surrounding country can be obtained, the enclosing wall, though lofty, being situated in a deep fosse and thus readily seen over. About 48 *hectares*, or nearly 120 acres of land, are attached to the asylum, and on this land farming operations are conducted by about 100 patients. There is an excellent block of farm-buildings within the enclosure with all the arrangements very complete; in the cow-shed there were no less than 42 cows, a good many Alderneys and Guernseys being amongst the lot. Whilst we were standing talking near the farm, I heard the noise of a drum, beaten *aux militaires*, and, following it, the sounds of approaching feet: it was a regular body of patients, headed by a drummer, who were coming out to commence work for the day on the land. This regiment of workers was composed of from 80 to 90 patients of the poorer class, all being stoutly shod, uniformly clad in clean white smocks and trousers, and wearing broad-brimmed straw hats; on the shoulders or in the hands of most of them were agricultural implements of various kinds. In the rear of these pauper workers was a body of *pensionnaires*, in all sorts of clothing, amongst whom I observed two or three military men in uniform, and one or two priests in clerical costume. Most of them had books in their hands, and they all came out for the purpose of sniffing the morning air, promenading on the shady and pleasant boulevard already referred to, and enjoying the views, or of sitting and reading in the open air on the seats 'neath the chestnuts. Proceeding inwards from the farm-buildings, and passing through large and well-kept kitchen gardens, we soon came upon the laundry—a detached block, fitted up with all the usual appliances, steam and otherwise. Near this, on one side, were the general bath rooms, communicating with the main building by covered ways; and, on the other side,

the general associated kitchen and bakehouse, which was also detached, and at some little distance from the main building, but communicated with it by means of a tramway, on which a close waggon ran for the purpose of conveying the cooked food to the inmates of the institution. The kitchen and bakehouse called for no special remark; but the general bathing arrangements were admirable and noteworthy. There was a large associated bath room, with a common dressing room, for the poorer patients, and, adjoining, were private baths and dressing rooms for the better class of patients. All the baths were mobile and of painted metal. At one end of the associated bath room were smaller rooms, containing special baths and bathing apparatus. In one of these there was a needle-bath, a douche bath with all sizes of douche roses, and a plunge-bath, about 6 by 4 yards in superficial dimension, and of a depth sufficient to reach up to the shoulders. At the side of the plunge-bath there was a crane, by the chain of which was suspended a special arm-chair, in which refractory patients could be strapped and lowered into the bath. In another of these rooms were two wooden chambers for the administration of medicated vapour baths. Off the latter room was a dark and closed chamber, about 12ft. by 8ft., containing three tiers of stone seats and a wooden couch; this was used as a simple hot air or vapour bath, and being close to the douche-room, was very convenient for the administration, in a simple manner, of the bath *à la Turque*. The cold douche, M. Deberiat told me, was much used voluntarily by the *pensionnaires*, and much resorted to as a remedial agent, being found to be of great service in cases of active congestion of the brain. Leaving the baths and passing into the building, I found the ward arrangements for the *pensionnaires* to be, as usual, excellent; and, in the inner enclosure, and surrounded by gardens attached to them, were two pavilion residences for four and two patients, respectively, of the highest class. Passing into the pauper part of the asylum, I found oblong airing courts, round which were ranged, on the ground floors, the day rooms and *réfectoires*, and in the (only) story above, the dormitories. The former looked more cheerful, and were better furnished than at Dinan, and the latter were, as usual, clean, tidy, and airy. In the ward of "*les agités*," though there seemed to be an attempt at uniformity in the dress—most of the patients wearing straw hats, white or blue blouses and trousers, and *sabots* or shoes—yet many of them were very

untidy, and several went about barefooted. On each side of another airing-court in the pauper department, and on the ground floor, were rows of strong single rooms, with a door on one side opening into the court, and an iron grating on the other side looking into an inner corridor. The floors of these rooms were of wood, as were also the beds, which were old-fashioned and fixed to the floor. In one of these rooms I saw from the corridor through the grating an acute maniac in bed, and restrained with the *camisole*. On the ground floor, also, in another part, were small dormitories for paralysed and feeble patients who were wet and dirty in their habits. In these dormitories the beds were box-shaped and deep; and at the free side near the bottom was a drawer, having in it a *vase de nuit* which communicated with the patient by means of a hole in the mattress. For the use of these feeble and dirty patients there were several single bath-rooms in the main building; but they were small, dark, and miserable. In the airing courts I saw several patients walking about with their arms restrained in strait-waistcoats, and altogether, throughout the building, I noticed about seven or eight cases of restraint of some sort or another. I forgot to mention that I observed, in the upper general dormitories, a good and wise distribution of jugs of spring water, with mugs for its use by the patients during the night. The infirmary ward was on the first floor, communicating with the dormitories; it was neat, but crowded with beds, though at the time of my visit there was very little sickness, and most of the beds were unoccupied. Between the general infirmary ward and the dispensary was a smaller infirmary for more serious cases, with special arrangements for poultice making and nursing, &c; there were three patients in bed here. I saw the usual workshops for the occupation of the patients during my progress through the asylum, and I finished by inspecting the nice little chapel attached to it, which is in the centre of the building, and semi-detached.

Before leaving I got the following scraps of information concerning the asylum from M. Deberiat: — The daily diet of the poorer class consists, on an average, of bread, 750 grammes; meat, 250 grammes; fresh vegetables, 500 grammes; and dry vegetables, 120 grammes. The proportion of attendants to patients, throughout the building, is about 1 to 11 or 12; and their rate of pecuniary remuneration, in addition to their board and lodging, varies from 230 to 270fr. *per annum*--not much certainly, being only about from

£10 to £12 a year. After ten years' service a retiring allowance is granted to those officers and servants who may have to retire from sickness; but, otherwise, the period of service required to entitle one to a retiring pension, of half their former emoluments, is 30 years. At the time of my visit there were altogether in the house 30 general paralytics and 20 epileptics. About one-fourth of the cases admitted suffer from insanity attributable to alcoholic excess—the principal liquor drunk being *eau-de-vie*. They have about 40 deaths and 40 recoveries, on an average, each year. The pecuniary remuneration of the *Médecin-en-Chef* and *Médecin-Adjoint*, is, for the former, 7,000fr., and, for the latter, 1,800fr. per annum. Two medical visits are made daily. About 1,200 francs are annually expended in drugs, the chief of which in use were—Choral, Opium, and Quinine. As adjuvants to drugs in the treatment of mental diseases, the physicians of this asylum consider there are none better than exercise in the open air, and the hydro-therapeutic treatment.

(To be continued.)

CLINICAL NOTES AND CASES.

A Case of Traumatic Insanity cured by Trephining. By C. Holland Skae, M.D., Medical Superintendent, Ayr District Asylum.

(*Read at the Quarterly Meeting of the Medico-Psychological Association at Edinburgh, November 27, 1873.*)

J. McB., æt. 21 years. Admitted into the asylum 25th November, 1869. Married, with small family; no member of his family known to have been insane before; light hair, eyes and complexion.

His wife gave reporter the following information regarding the history of her husband's illness:—

Four years previous to admission, while working in a coal-pit, he was felled to the ground by a huge mass of falling coal, which struck him on the head about three inches above the left extremity of the left eyelid, causing fracture of the skull at that point. He lay insensible for four days after the accident, when he gradually recovered consciousness, and a few weeks afterwards resumed work in the pit.

Not many weeks after doing so, however, his wife and friends began to notice an alteration in his habits and nature,

which became more and more marked and obtrusive as time progressed. He had formerly been a very cheerful, rather merry, sociable, and very goodnatured man—what his fellow-workers would have called a "neighbourly chiel"—and at all times, previous to the accident, was kind and loveable to his wife and children, with whom he delighted to pass his evenings in sober enjoyment.

About this time, however, he began to evince a different spirit and nature altogether; he became irritable and moody; at work he would separate himself from his fellow-workers, and when spoken to by them would barely return a civil answer; sometimes he was quite taciturn—at home, of course, the change was still more striking. He would return home cross, and sit moping over the fire all evening; he would rudely repulse his wife's affectionate efforts to rouse him out of his unhappy humour, and "shut her up" with some snappish expression; if his children ran to meet him on his return from work, as was their wont, the "envied kiss to share," he would push them impatiently aside; altogether his conduct was bearish, disappointing, and ill-natured. This unhappy state of matters got worse and worse; he often got excited and used threatening and violent language to his wife, whom he until lately loved so well, but whose presence now seemed only to excite angry and dangerous feelings; to his children and neighbours he conducted himself in the same manner. Eventually he became acutely maniacal; attempted to take his wife's life; assaulted every one who approached him; and even attempted suicide. He then had a succession of epileptic fits about a week before being brought to the asylum.

When admitted, the reporter on entering the receiving room found him handcuffed and sulking in a corner; and when he approached him and spoke to him, he turned his face towards the wall, and humped up his shoulders, much in the same sort of fashion as a child does when one who has offended him advances with overtures of reconciliation. He was taciturn, and had a very morose and ill-natured expression. He had a well marked depression, with an ugly cicatrix as previously stated, about three inches above the left extremity of the left eye-lid, which latter slightly drooped, giving him a half-sleepy, half-stupid look. He was about two months in the house before the operation was performed, and during that time he slightly improved; that is, he became conversable to a limited extent, only with certain persons, but

his conduct generally was that of a man whose mind was monopolised by some unhappy thoughts to the exclusion of all others, which tyrranised over his mind and regulated his actions and behaviour; he was averse to doing anything at all, either in the way of work or joining in amusements. He was suspicious of those about him, and had the expression of one labouring under suspicions. He laboured under a fixed delusion regarding his wife's and friends' conduct towards him, declaring that he was the victim of a conspiracy originated by his wife, and joined in by her friends, to deprive him of his liberty and independence; and when interrogated on the subject, he always expressed himself in bitter and resentful terms

He continued much in the same way up to the beginning of 1870, when he underwent the operation of trephining, which was skilfully and successfully performed by his former medical adviser, Dr. Clarke Wilson, of Ayr.

A depression was distinctly visible at the point where he had sustained the blow, and on the finger being applied to the place it was as distinctly felt, and on the overlying portion of scalp being dissected off, it was still more evident both to the eye and to the touch.

The depressed portion of bone was removed, and the patient, after a week or two in bed, was moving about again when a gradual improvement week by week took place. His wife visited him constantly, and on each visit expressed herself pleased with the additional improvement, and extra step towards his former natural and healthy condition; indeed, he very soon became a different person altogether; all his old affection for his wife revived in full force. He became a cheerful, active, lively fellow, never satisfied if he was not doing something. He made friends with the attendants and amongst the patients, and not very long after he was trephined he was discharged sane.

He has ever since supported his wife and family, and has regularly paid visits, at about six months' intervals, to the asylum, generally passing the whole day at it.

The reporter saw him on each occasion, and talked for some time with him, and felt satisfied that he was quite sane, and has satisfied himself by careful inquiry that he has continued in a perfectly sound state of mind since his discharge from the asylum. The operation was performed in February, 1869, and reporter last saw the subject of it in the spring of 1873.

Notes of a Case of Insanity dependent on Syphilis. By H. Hayes Newington, Assist. Physician Royal Edin. Asylum.

(Read at a Quarterly Meeting of the Medico-Psychological Association, at Edinburgh, Nov. 27, 1873.)

I have designated the case, a description of which I have the honour of laying before you, as one of Insanity dependent on Syphilis, discarding the generally used term—Syphilitic Insanity. It will be better to state the reasons for so doing after I have given you an account of the patient. I will, however, premise that the Diagnosis is that of a syphilitic tumour or other affection, acting as a foreign body within the cranium. To substantiate this fairly, it seems to me that the presence of intercranial disorder should be made out, and then evidence be sought to determine the nature of that disorder. I have, therefore, endeavoured to classify symptoms as much as possible in accordance with this plan. The general history is as follows:—

Mrs. J. H., æt. 52, admitted August 1st, housewife. No hereditary predisposition ascertainable, except that her father "could take a glass as well as any man," and a maternal uncle was a drunkard; members of her own generation healthy, as far as could be discovered. She married at 17, and has been a good deal knocked about by her husband, from whom she has been separated for 12 years. Has had a family of seven sons and one daughter, four dead and four living. I will refer to this point again. She ceased to menstruate three years ago, and from that time she dates all her present troubles. She then "took fits," as she expresses it, each convulsion standing alone, and occurring with great regularity at the time that the menses would have occurred, if that function had been continued. A month before admission, after one of these attacks, she first showed decided symptoms of insanity, which, however, seemed to have disappeared in a day or two. Two days before being put under her present certificates, she again showed these symptoms, being certified to be noisy, threatening, and dangerous. She was quiet on admission, but very dull and confused. Only once has she since shown any indications of excitement. She is deteriorating in mind, her memory being very defective, and she owns to a certain amount of hastiness of temper, which she states to have been foreign to her before. Notwithstanding the occurrence of many seizures at home, she was returned in the statement on her admission paper, as not epileptic, and, in the absence of any reliable history, her case was regarded as one of climacteric insanity of an asthenic type. After a short time she was set to kitchen work, and soon had one or two seizures, falling suddenly without a cry, with a

blanched face, no foaming at the mouth, nor biting of the tongue, nor subsequent struggling. Still again the nature of the attacks was not clearly made out, and but for the occurrence of quiet death-like coma, they might have been looked upon as syncopal. A close observation of succeeding attacks demonstrated their epileptiform nature, and she is still subject to them, modified in the following manner. Whereas at first there was no warning, not even the squeamishness that she now feels,—there are often present for a short time beforehand tingling and formications in both upper extremities, chiefly in the hands. No evidence of an aura. She always wets herself during an attack. The fits have become more frequent (Oct. 2nd, 14th, 18th, 26th, and two on the 30th). But they are less severe, and are followed by slight clonic spasms, which continue till consciousness has returned. Their duration is from 10 to 30 minutes. Hemiplegic symptoms have not been found either during or between the attacks.

The occurrence of these fits so late in life, taken along with their anomalous character, at once debarred the idea of epilepsy proper, and the existence of a cerebral disease was suspected, and later on confirmed by other appearances, at first very slight, but now so well marked as to leave little doubt as to the state of things.

There is a depression in the os frontis in the left supraorbital region, and in the skin covering it is a small jagged cicatrix. A constant pain, liable to exacerbation, is referred to this spot, and passes thence to the vertex. There is no tenderness in this line either on tapping it or on firm pressure, and the pain is not apparently deep-seated. Both eyelids droop, but the left one has decided ptosis. The left side of the face, though not actually paralysed, is heavy, impassive, and wants those lines and rugæ which give life to the features. This is more noticeable when she laughs or attempts to whistle. The tongue is pointed slightly to the left side, and is very tremulous at times. No anæsthesia found nor inequality in the action of the nerves of the senses of the different sides, with the exception of those of vision. This latter depends probably on organic changes in the weaker one, the left, rather than on intercranial causes. The ophthalmoscope, at least in my not very experienced hands, has not revealed any symptoms of the latter.

A complete history of Syphilis has now been obtained, and perfected the diagnosis by throwing a light on the origin of the frontal depression, etc. It appears that a few months before marriage she had a sharp attack of the disease, which was not placed under medical care, owing to shame and want of means. The consequence was that she suffered severely from all the secondary symptoms and some of the tertiary. Six months after marriage a small bone, as she puts it, came away, leaving behind the present depression and scar. She also had iritis and corneitis apparently. The left pupil is almost immovable, somewhat irregular and undefinable, the inner portion of the iris

being homogeneous in appearance and nonstriated. Below and rather external to the line of vision is an opacity in the cornea, and in the sclerotic surrounding the iris is a faint line of enlarged vessels. This latter appearance is, as far as I have found, permanent after an attack of syphilitic iritis. This state of the eye I believe to be the cause of the weakness in its function, and also of a slight convergence in certain positions. I should have mentioned before that the movement of the organ is in nowise impaired. The pain in the head is often increased on her getting warm in bed.

She lost her first three children at ages of between six weeks and as many months, all very puny and weak—the eldest one having had a rash on it for some time. The fourth died lately, æt. 21, of phthisis, leaving one healthy child. Her last four are all healthy and doing well. There is thus abundant evidence of her being syphilitic, and I think that there is sufficient connection between it and her psychical troubles to enable one to fix it as the prime cause of her insanity. She commenced to take 5 grains of Iodide of Potassium combined with 30 grains of Bromide of Potassium thrice daily. She did very well, but became iodised shortly. The Iodide was omitted, the Bromide being continued. She gained colour, and a comparatively healthy appearance, the left side of the face gaining some expression likewise; but she had a nocturnal fit of no great violence on the 24th (25 days' interval). It, however, brought back the facial symptoms and left her very confused and silly for 24 hours, when she became very excited and noisy, laughing, dancing, and using very foul language. The Bromide was given in ʒi doses, and after the second dose she sank off to sleep, awaking next morning very quiet, and feeble looking. The whole of the left orbit very much engorged, the temporal veins very marked, the eyelids swollen, etc. The vessels of the sclerotic were very full, and the opacity in the cornea above mentioned seems to have spread upwards until it has almost entirely occluded the line of vision.

The etiology of this case is very interesting and complicated—in fact, there are more ways than one of reading it. There is little doubt that syphilisation stands as the first link of the chain of factors, and, of course, the insanity may be regarded at present as the last. The difficulty lies in rightly allocating the intervening factors. Were hereditary predisposition ascertained, it would take the precedence of syphilis: but, as I before said, there is none to be discovered, nor does it seem to be essential in this case. Foremost, then, we have syphilis — primary, secondary, tertiary — in which last stage the first important cranial affection occurs, external and most probably internal as well. The first question arises here—How far did the in-

ternal disease—*i.e.*, of bone and meninges—proceed? Did it advance as far as it has gone at present, and then become, as it were, latent, waiting for times more favourable to its development? Though far from impossible, that is hardly probable. At her age at the time of contracting syphilis, disease of the meninges, if much inflammatory mischief has taken place, has a great tendency to run an acute and evil course, often leaving behind dementia. Here we have a woman, for upwards of thirty years after, leading a life of struggling that would certainly find out mental defect, without showing any such alteration.

On the other hand, can the original disease have stopped short at the inflammation of the meninges, leaving behind, so to speak, a potentiality of a future development at the time when the system became too weak to resist, as in this case in all probability occurred at the climacteric period? In favour of this view is the entire absence of symptoms for thirty years, but still more strongly against it can be urged that immense period intervening. The most reasonable theory is to be made out of a blending of the two preceding, viz., that a certain amount of disease arose at first, that the foreign material then left has gradually, but very slowly, been developed, and that when the patient was thoroughly played out by her troubles and the arrival of the climacteric period, the development became hurried on quite out of proportion to its previous growth.

Next we come to cessation of the menses, marking the grand climacteric. This in any case stands as the determining cause. It is hardly necessary to revert to the important part that it plays in the development of Insanity of Females. The substitution of tolerably regular convulsions, directly after the monthly period has first been missed, serves to show a much closer connection between the two conditions than can be found in the majority of cases.

Then as to the tumour. This we must consider to be the immediate cause, and it may have acted thus: either directly by pressure, or irritation, or inflammation, influencing the nutrition of the subjacent portions of the cerebrum; or secondly and indirectly through the intervention of epileptiform convulsions. Here, again, a mixture of the two modes is most probable; the epileptiform convulsions hurrying on the mischief that had been begun by the pressure or structural change caused by the tumour.

And now having arrived at the insanity—the last link in

this chain—how is it to be classified? There is no doubt that in making a tabulated statement, it would be returned as a case of Syphilitic Insanity. This is a form that requires considerable definition, as I think will appear from the following considerations. Dr. Wille, as I gather from Dr. Addison's German Retrospect in the Jan. No. of the "Journal of Mental Science, '73," has been able to assign a syphilitic origin in 2·5 per cent. or 1-40th of his cases, and states that even then the average is underrated, from the difficulty of obtaining proper histories. I have turned over the tables of Causes of Insanity on Admissions in the 1872 reports of 47 Asylums (20 Eng., 9 Sc., 2 Ir., 14 Amer., 2 Colonial), and find six cases only noted—1 in Eng., 1 Sc., 3 Amer., 1 Col., being an average on total admissions of ·1 per cent., or 1-900th. What is the cause of the discrepancy? It can't be that Germans are more prone to syphilis in its worst forms than we are. It must lie in the manner and degree in which the disease is recognised. Giving full weight to a possible over-eagerness on the part of the Germans, and to the fact that the statistics which give such a high percentage are drawn from the whole population of Asylums, whereas, ours are drawn from the Admissions only, we must own that our recognition is very limited; in fact, the causation is almost always allowed only in such cases as the one I have just described. Take our text books for instance. Such a recent one as that of Dr. Maudsley only deals with tangible intercranial disease as a cause. Still more recent, that of Dr Blandford hints at nutrition changes produced by syphilis having a hand in causing Insanity; but he also writes this—"Syphilitic Insanity is usually spoken of as Syphilitic Dementia." I have been able to find in various works the following relations between Syphilis and Insanity:—1st. Acute mental disease may occur coincident with or even preceding and following the eruptive stage. This is a rare form, and seemingly requires great brain vulnerability for its production. 2nd. As a companion to the tertiary stage may occur a condition that is found with other forms of meningitis, to be followed often by dementia. Dementia also occurs sometimes without any appreciable intervening changes; but then it would be impossible to say that syphilis unaided had been the cause. 3rd. We meet with cases similar to this one of Mrs. J. H., caused not so much by a specific brain destruction as by the sequelæ of a syphiloma. This

condition might be well described as Syphilomatous Insanity. The name would, at all events, tie one down to a precise diagnosis, and at the same time afford pathological information to a reader of Statistical Tables of Insanity. 4th. We again find syphilis existing in a relation to melancholia; not a specific one, but, on the other hand, one that requires careful investigation before it is admitted in any given instance. Of course we at once reject mere syphilophobia without any manifestation of the disease. But we admit the power of corporeal diseases, such as irregularities in the alimentary canal, to determine at least an attack of melancholia; indeed, our first anxiety is to find out some such trouble, and we often find that, by setting that to rights, we ameliorate the mental condition. Therefore, it is reasonable to include Syphilis as an agent in producing this form of disease. Dr. Wille gives considerable prominence to melancholia as a special symptom of Syphilitic Insanity.

In conclusion, I venture to hope that you will consider it appropriate to describe the above case as one of "Syphilomatous Insanity;" and also to suggest that, instead of using the too comprehensive name of Syphilitic Insanity, the causation and form of mental disease should be combined —*e.g.*, Syphilitic Dementia, Syphilitic Melancholia, etc.

Two Cases of Syphilitic Insanity. By Dr. Batty Tuke.

B. A., æt. 52. Admitted January, 1873. Member of a liberal profession.

History.—Patient's father died suddenly, at the age of 64 years; his mother is still living. No hereditary history of insanity.

Patient was an intelligent, energetic man, and always busily employed with professional work up to about two or three years ago. While in Edinburgh, some years since, he contracted a chancre, which was followed by the usual secondary symptoms. Shortly after this he had fits of great inaptitude for business and depression of spirits; at other times he was excited and in high spirit, doing his work as usual. This condition gradually improved, and he became much as he used to be, viz., cheerful and happy, until one day, after some very anxious professional work, he was suddenly seized with loss of consciousness, and fell down in the street. Patient cannot tell much about this attack, but he noticed after this that his speech was affected, and he was unable to remember words he wished to use; he became much concerned about his health, and again got into a very low state. He had one or two more of these attacks of unconsciousness, which were

always followed by more marked aphasic symptoms; he then had distinct epileptic attacks, and after one of these became so excited and violent that he was obliged to be removed from home. Patient can give no information regarding the commencement of the paralysis.

Present Condition.—Patient is naturally a spare man. Height, 6ft. 1in.; hair, scanty and becoming grey; skin, moist; temperature, 99° F.

Digestive System.—Tongue a little furred at the base; has marks of a bite at the edges. Appetite good; bowels constipated. Patient has suffered from constipation for some time past, always requiring laxative medicine.

Circulatory System.—Pulse 74, full and regular. First sound of the heart is sharp, otherwise normal.

Nervous System.—Patient has only partial power of right hand, the grasp of the left hand being much firmer than that of the right. The muscles of the right hand are wasted; the thenar and hypothenar prominences are markedly wasted, as also are the interosseous muscles. The use of the right hand is much impaired, particularly for finer work, such as writing, &c. The muscles of the right fore-arm are slightly affected, those of the right leg are not much wasted; the muscles of the right thigh are much wasted. When patient walks he slightly drags the right leg.

MEASUREMENTS.		RIGHT.		LEFT.
Circumference at	wrist	7in.	-	7in.
„	8 inches above radial styloid process	10in.	-	10¼in.
„	4 „ „ .	8in.	-	8¾in.
„	ankle	10in.	-	10in.
„	8 inches above External Malcolus .	14in.	-	14½in.
„	4 „ „ .	10½in.	-	10½in.
„	5 inches above Internal Condyle .	16½in.	-	18in.
„	8 „ „ .	19in.	-	21½in.

Sensibility is difficult to ascertain correctly, from the presence of aphasia; it is unimpaired to touch and to heat, but he cannot always tell correctly how many objects touch him at once—often saying "twenty," and then immediately saying that he meant to say "two," &c. Eyesight is not good, he has suffered from syphilitic iritis, pupils are small, but regular and equal. Hearing is defective, more particularly on the right side.

Patient suffers from aphasia, which is of an amnesic character chiefly; he forgets the names of articles even when he sees them, but can always say what they are when told; he occasionally misuses words, often asking for "beef," meaning butter, "sweet" for sugar, "tea" for coffee, &c. He cannot spell correctly, and has difficulty in writing, missing out important words, and using wrong words for the meaning he wishes to express.

Mental Phenomena.—Patient's expression is calm, but when talking he becomes excited. His memory is bad, he forgets about past events; he can generally tell something about the subject spoken of,

though even the little he does know is not always correct. Had delusions and hallucinations, but these have disappeared. He is still restless and excited. Other symptoms normal.

Course of Case. June 28.—Patient has had three epileptic fits since admission, viz., on April 8th and 21st, and on June 1st; they were always preceded by a state of restlessness and excitement, which subsided after the attack, when the patient got depressed and miserable about his health. Beyond this there has been no change until to-day. Motor power is much the same as on admission, with the exception that the right leg seems more affected, and instead of dragging it after him while walking he brings it forward with a sort of "hoist." Patient has internal squint of the right eye; this was first noticed to-day about 1 o'clock p.m. He complained of not seeing so well this morning at visit, when his eyes were examined, and no squint was then present. Patient has only partial power over the right eye, as on being told to follow the finger when moved, it does so by jerks, and not steadily as the left eye. He also complains of seeing double; he sees an object on the floor of the room, but also at the roof, or on looking along a straight road he sees it perfectly, but also another exactly the same diverging from it. The right pupil is larger than the left. The face is drawn to the right side; the right angle of the mouth is drawn upwards, and is on a higher level than the left angle; tongue is protruded straight. Sensibility of left arm is more perfect than that of the right, particularly about the hand; sensibility of the legs equal; sensibility is slightly impaired on the right side of face. Patient can stand perfectly well with his eyes shut; speech is more affected to-day than usual. He has a dull pain in his head, not confined to any particular part, and says he feels more confused and stupid than usual. Pulse 64, full and regular; tongue furred; bowels acted freely this morning.

August 30th.—Patient has had three epileptic attacks since last report, otherwise he has been going on in his usual way, the squint has now entirely disappeared, and the face is not so much drawn to the right side. To-day patient had an epileptic fit while at dinner—there were no premonitory symptoms; he suddenly gave a shrill scream, lost consciousness, and the right side of face became convulsed, the angle of the mouth being drawn upwards and to the right; the eye lids were spasmodically closed and opened, while the muscles of the left side were scarcely, if at all, affected. The muscles of mastication were at the same time convulsed, as, on withdrawing the finger from the mouth, after clearing away the food patient had been taking, it was covered with blood. This state lasted for a few seconds, then the right arm was thrown into a convulsed state, also the right leg; then the head was thrown backwards, and the convulsions extended generally over the right side of the body, while the left side remained almost entirely free from convulsions. Patient then foamed at the mouth, breathing became interrupted, and face very con-

gested ; this state continued for two minutes or so, then the convulsions ceased, and patient gradually recovered. About a quarter of an hour after attack the right side of the body was noticed to be pale and blanched, while the left side was of a healthy, florid colour. The muscular atrophy is slowly progressing, the muscles of the right upper arm are now affected, as also are the gluteal muscles of the right side, which was not the case on admission.

C. D., æt. 42. Unmarried. Member of a liberal profession.

History.—Patient's relatives have been all long lived, except his father, who died some years ago from the effects of an injury to his spine, received by a fall off his horse, prior to the patient's birth. Mother is still alive, and in good health. All the members of the family are of a marked nervous temperament. Patient has been a hard-working man all his life; besides having regular professional work, he managed his estate abroad, and has thus been exposed at times to much mental anxiety, and unhealthy climates. He was temperate in his habits, and always enjoyed good health up to time of present illness, with one exception, when he contracted a chancre, which was followed by secondary symptoms, viz., skin eruption and iritis ; this occurred about three years ago.

Patient began to suffer from severe headaches, giddiness, and sparks floating before his eyes ; shortly afterwards he had occasional attacks of vomiting; his memory began to fail, and his friends state that he became a changed man in his manners and habits. This condition continued for about two months, when he became restless and excited ; he wandered about without any apparent object; squandered his money, &c., so was obliged to be put under medical care.

Patient presented the following condition on coming under treatment:—He is fairly nourished, but muscular development is small; has been losing flesh lately. Hair is becoming gray, and he is also a little bald. Skin of natural moisture, Temp. 98.6° F.

Digestive System.—Tongue furred, appetite good, bowels inclined to be constipated.

Circulatory System.—Pulse 96, small, weak, but regular. Heart, first sound accentuated.

Respiratory System.—Patient is troubled with cough, but unaccompanied by expectoration. Breath sounds are a little harsh all over the lungs, otherwise normal.

Genito-Urinary System.—Urine is scanty, and loaded with urates. There are two cicatrices on the glans penis.

Nervous System.—Motor power of the left hand is diminished, also that of the left leg is slightly diminished, and patient walks as if the leg could not carry the weight of his body ; the extremities are equally nourished. Sensibility is normal as far as can be ascertained. Patient states that he has occasionally a feeling of numbness in the left arm and leg, also a pricking sensation in the fingers and toes of

the same extremities. The use of the left hand is much impaired for performing finer movements, thus he cannot pick up small objects so well or so quickly with the left hand as with the right, which used not to be the case. The sight is impaired, the pupils are contracted, but the right is slightly larger than the left. Hearing is also impaired.

Mental Phenomena.—Expression is care worn, and at times vacant. His conversation is rambling and incessant, chiefly about himself and his delusions. He has extravagant notions about his great wealth, and how he is going to increase the value of his estate abroad by buying up all the springs in the neighbourhood, &c. He also believes he is the most favoured person living, as he has had a vision of heaven; he was taken up by the neck and a curtain was drawn asunder, then he saw most lovely sights, and heard the most charming music, &c. He believes that through this he is to live one half his life over again. Memory is impaired; he can always tell something about an occurrence, but colours it to his own advantage; sleeps fairly. Habits cleanly. He is very restless and excited.

Course of Case Condensed.—During a period of six months the restlessness and excitement gradually subsided, the exalted delusions lessened, and he acknowledged he could not think why he had talked such nonsense. He still maintained that he heard most peculiar sounds, and saw sights such as he had never seen before, when he thought he had a vision, and said he could only account for it by the diseased state of his mind at the time, as he now knew it could not have been a vision. Physical condition remained much the same; there was still great impairment of sight, but the pupils were equal, though small. The power of the left leg was improved, but that of the arm remained much the same. His mind remained much impaired, and his friends state that he is not like the same person regarding business matters, &c., and that he is totally unable to resume his professional work.

About a week ago he fell off the sofa in what appears to have been an epileptic fit, as he was quite unconscious and frothed slightly at the mouth. The numbness of the left arm and leg has returned; he sleeps badly, groaning in his sleep, and is very restless and excitable.

Case of Mental Excitement during the Secondary Stage of Syphilis. By Francis Cadell, M.D.

The subject of this case is a gentleman, 48 years of age, who contracted an infecting chancre in January, 1870. Nothing of any note occurred until the month of April, when a squamous syphilide made its appearance, and at the same time marked mental excitement came on, with an extreme amount of restlessness. This mental condition reached its height during August and September, almost amounting to delirium. The patient took almost no rest in bed, and was in the habit of riding and driving about recklessly during the night. To-

wards the end of October the excitement began to diminish until, in December, nothing remained to remind one of the dangerous mental condition the patient suffered from five months before. At this time all trace of the secondary syphilide had disappeared.

The mind remained healthy until April of the following year, 1871, when the hair of the head, eyebrows, and beard began to fall out. This was attended by gradually increasing mental despondency, which became so intense in July that the patient several times threatened to commit suicide. What the Germans call "paralysis of energy" now clearly manifested itself; and the patient showed great disinclination to leave his bed. From October, 1871, to the beginning of 1873, he seldom left the house. At this time the bodily health was fair, the hair had grown in again, and there was a slow tendency to recovery. By the month of June, 1873, this patient had quite regained both his bodily and mental vigour.

Clinical Memoranda. By George Thompson, M.D., Medical Superintendent, Bristol Asylum.

There is in the Bristol Asylum an idiot girl, E. G., whose arrested mental development seems to be due to hereditary syphilis, as she is blind through interstitial keratitis, and has the well-known notched teeth and imperfectly developed alveolar processes described by Hutchinson. When first admitted, she was the subject of paroxysms of excitement, lasting over several days and nights at a time. The more common sedatives had no effect. Remembering the treatment adopted by my former teacher, Mr. Pridgin Teale, in all cases of hereditary syphilis, whatever form the symptoms had assumed, I gave her 20 min. doses of tincture of Belladonna, which had the effect of cutting short the then existing attack, and, by continuing the treatment, subsequent ones were at first lessened in severity, and then apparently warded off altogether. After discontinuing the treatment, the good effect of the former administration wore off, but at any time three doses of the drug, in the same amount, given in successive hours, relieve the excitement.

Occasionally a case is admitted with scabies. The treatment adopted here is to touch each individual pustule with Tinct. Ferri Perchlor. by means of a camel-hair brush. If carefully applied the disease disappears in a few days.

Case of Idiopathic Acute Mania. By Thomas A. Chapman, M.D.

S. S., æt. 28. F. Admitted on the 28th July, 1873.

History.—No report of hereditary tendency; was some two years ago in very low spirits for some time; this is the only trace reported of a previous attack. The first change denoting present attack occurred three weeks ago, and for two or three days she has been

violently maniacal. The medical certificates give the following information as to her state just before admission :—"She throws herself about in a violent manner, shouting loudly, without apparent cause; asking about her deceased aunt and brother, who, she said, come up from their graves, as they are uncomfortable from being buried in water. She says that all are bad besides herself." "Has threatened to throw herself through the window if not allowed to run out of the house. She has several times run into neighbours' houses, whom she did not know, and acted very madly when there." "Excited, frightened, and very violent; dressing and undressing; uttering scraps out of the prayer-book; continually holloaing and raving; abuses her father, and yet is constantly calling him, and then sending him away again."

State on Admission.—Is brought to the asylum almost nude, apparently from her having torn up all her clothing, and from the difficulty of keeping anything about her. Is shouting, screaming, and abusing those who come with her. Is short in stature, robustly built, fair complexion, and red hair. A physical examination is difficult, owing to her excitement; but when partially made, after she had become somewhat calmer, shows nothing amiss in heart and chest sounds; none but the most trivial bruises; complains much when touched in various places, and seems generally somewhat hyperæsthetic; has some small boils, and on lips a small patch of Herpes. Bowels stated to be regular; also menstruation, last period being a few days ago; has taken no food for 24 hours; took nearly a pint of milk just after admission.

July 20th.—Bowels have been opened by Ol. Tiglii, $\mathfrak{m}\frac{2}{3}$; could not be got to take any other medicine; takes a fair quantity of milk; also tea, but no solids; is noisy and restless; slept one hour last night and the previous one.

July 24th.—Has had no medicinal treatment; bromide of potassium was ordered, but not taken. Is very restless and excited, rushing about the airing court, sometimes shouting, and has clothing sufficient for decency with difficulty kept on her. Has twice had to be fed by stomach tube, and is now taking a bare sufficiency of fluid; has slept very few hours since last entry; tongue dry; ordered gr. xx of chloral at bedtime.

July 27th.—Bowels again opened by Ol. Tiglii; is doing rather better as regards food (fluid only), and has some rest; for two days the right parotid gland has been swelling, and is now markedly enlarged and tender; pulse 80; tongue and teeth dry and coated; is decidedly weaker; chloral continued; ordered twenty grains of sulpho-carbolate of soda every three hours.

July 29.—Has been very quiet, and confined to bed since last entry, partly from prostration, and partly from some little mental improvement; pulse still 80; swelling of parotid very tense; cannot open mouth only $\frac{1}{8}$ in., but tongue is cleaner; appetite improved, and looks

altogether better; chloral continued, and dose of sulpho-carbolate to be taken thrice a day.

August 4th.—Has steadily improved since last entry; is tolerably rational; is up and about; able to take a little solid food, and to open mouth a little; swelling still considerable; no distinct indication of pus; treatment continued.

August 10th.—Rather dull and quiet, and inclined to cry on slight provocation, but otherwise seems rational; improving in bodily health, appetite fair, can open mouth very little, swelling being still considerable, fluctuation under ear, opening made, and a little very thick laudable pus evacuated—no medicine.

August 27th.—Seems well, except a little stiffness about angle of jaw.

September 6th.—Discharged recovered.

I record this case as a typical one of a form of acute mania, which has seemed to me to deserve recognition as a distinct nosological entity. The cases which I have seen have been few; they have all been marked by the wildest excitement, with refusal of food, parotid inflammation supervening at the end of a week or ten days. Two cases which I remember best, as they made a strong impression on me, ended fatally within a week of the parotid swelling occurring. I attribute the more favourable result in this case to the free use of the sulpho-carbolate of soda, which I have found very valuable in all cases of inflammation of a low (the therefore possibly septic) type, and also to the rest obtained by the use of chloral. During the first few days the case was under care hardly any treatment was possible.

This form of mania has no name under Dr. Skae's classifications, being placed under the head of Sthenic or Asthenic mania. Should further observation prove it to be a distinct disorder I would suggest that it be called Acute Mania with Parotitis.

OCCASIONAL NOTES OF THE QUARTER.

Lord Derby on Idiocy and Insanity.

On the occasion of the annual festival of the Royal Albert Asylum for Idiots, the Earl of Derby, who presided, made the following thoughtful remarks concerning idiocy and insanity, and the establishments necessary for the care and treatment of those afflicted with defect or disorder of mind:—

It is only within the last 100 years that the condition of persons mentally incapable, from whatever cause, has received in this country

any serious attention. In earlier days people were content to accept the fact of mental infirmity where they came in contact with it as one of those visitations sent by the Higher Powers which it was impossible to fathom, and regarding which it might be presumptuous to inquire into the cause. They considered that all they were bound to do, and all that there would be any use in attempting to do, on behalf of the patient, was to keep him from starving and to put him where he would not be a trouble to his neighbours. Now, the theory generally fell below the practice, and they, in fact, did very much less than this. Up to 100 years ago a great majority, both of imbeciles and lunatics in this country were left with very little care of any kind outside their own families, but as civilization goes on the belief grows that most diseases, whether mental or bodily, whether affecting the individual or society, are both curable and preventable—they are one or the other if you set to work the right way; and with that conviction there comes the more stringent sense of human duty and a higher sense of human destiny. Just on that account it is that in these times, when there is really the greatest activity in all matters of social improvement, you find people less contented with what is being done, and more apt to look at the defects of the actual practice, as compared with that which they think ought to be. Now, in regard both to lunatics and imbeciles, within the last hundred years there has been a complete revolution in their treatment. That revolution arises principally out of the growth of a stronger and more active feeling of humanity; partly also from the substitution of the scientific for the mere fanciful point of view. When it became recognized that diseases of the brain or defect of brain power was just as much, and in the same sense, a physical infirmity as disease or defect in any other bodily organ, the old notion of persons mentally afflicted being subject to some mysterious visitation which it would be useless, and perhaps improper, to attempt to interfere with, had to disappear, and the question was raised, and had to be answered, "Are these diseases curable; and, if so, how are they preventable; and, if so, by what means?" Well, I need not tell you what has been accomplished in regard to one class of those mentally afflicted—lunatics. If we are to measure the civilisation of the country by the care which is taken of those who are incapable of taking care of themselves, and who can render no substantial return for the benefits conferred upon them, we may fairly claim to hold our own in the first rank of civilised nations, because I believe that, notwithstanding some little abuses, which under the peculiar circumstances of the case it is impossible should not exist, our asylums in this country are better arranged, better managed, and better supported than any others in the world. One proof of that is increased confidence, which, in passing, let me say has created, what I believe to be, a very unfounded impression as to the increased mental infirmity among our populations. I do not think it has ever been

proved that any such increase has occurred; but what is certain is this, that formerly affectionate friends and relatives, if they had any person of unsound mind, kept him at home as long as it was safe to do so, and very often a great deal longer, because they were convinced—and, under the circumstances, reasonably convinced—that he would not be safe from neglect or even from active ill-treatment; whereas now, having confidence in the treatment which they find existing, their first thought in a case of this kind is to send the patient to an asylum, where they know he will have a certainty of careful attention and the best chance of recovery. Well, with regard to imbeciles, who are a class in which we have now to deal, less has been done than in the corresponding case of lunatics, partly, I am afraid, from a more or less selfish motive, because, as a rule, they are a less dangerous and a less troublesome class; but partly, also, from a more definite reason, because there was really a much greater doubt as to the possibility of effecting a cure, or even a material alleviation of their condition. It is, in fact, in consequence of the observation and experience of the last 25 years that it has been ascertained that in a very large proportion of cases of congenital mental infirmity a patient may, by care and training, be made able, at least in part, to contribute to his own sustenance. If he is not able to do that, he is at least qualified to do without being watched. If even that second result has not been obtained, he may and ought to cease to be the source of annoyance, or disgrace, or danger to those about him. Now, both of those are very considerable results to accomplish. It is much, in an industrial point of view, to be able to turn idlers into workers, more especially when those idlers are not only themselves incapable of labour, but by the necessity of being looked after are keeping other persons from what might be useful and productive employment; but it is still more important, I think, to assert, as we do by our care of these unfortunate persons, the principle that a human being is to be respected and valued as such, not for his capacity of productive labour, not merely for the sharpness of his wits, not because there is anything about him which is pleasant to see or agreeable to have to do with, but simply because he is a member of the human race, born on English soil, and, therefore, in that double capacity has a claim upon us, as human beings ought to have. Well, gentlemen, the greater part, I do not hesitate to say, of the value of an asylum as a hospital consists in its usefulness as a school where the particular complaint treated may be studied, not merely that we may know how to cure it, but how to alleviate it when it comes before us in incurable cases, and, if possible, that we may trace it back to its cause and so guard against it in the future. Now, this, I am afraid we must allow, is still comparatively untrodden ground. In the case of insanity, I suppose no one would undertake to affirm that we could trace with certainty the conditions under which it will appear, or the cause to which it is due. In the case of idiocy and imbecility I

think we are safe in affirming that, not invariably, but most frequently we shall find it connected with physical or mental weakness, or with abnormal conditions, either the fault or the misfortune of parents. That fault or misfortune, whatever it may be, is often very likely inherited or inborn. We know that excess of all sorts—intemperance, extreme anxiety, or absolute vacuity of mind, either a great excess of work or a total absence of work, residence under specially unhealthy conditions, intermarriages among a limited number of families, and more especially in cases where weakness of brain already exists—that all these are recognised and allowed to be predisposing causes. Now, all these are causes within human control, and I do not, therefore, see why we are to despair, if not of absolutely stamping out imbecility as we have almost stamped out small-pox—at any rate, to put it more modestly, why we are to despair of greatly limiting its area and scope in future. Beyond that hope I think we cannot safely go. Our knowledge of the conditions which regulate human existence, as those who have studied them most closely will always be first to admit, is very limited and very imperfect. We know nothing, to take one instance, of that mysterious law which we see in operation generation after generation—that law by which certain races of mankind seem to decline and to die out without any physical, or, at least, any adequate cause; and so it is in the instance of which I have been dealing. We must be content only as far as we see our way clearly to do the work which lies before us ready to be done, and for the rest trust to the wider observation and longer experience of those who come after us. Meanwhile we know this—that every town or village thoroughly ventilated or drained, every model lodging-house set up, every case in which healthy labour is substituted for unhealthy labour, every brain healthily employed—above all, every individual rescued from the slavery and degradation of habitual drunkenness, does something to prevent the necessity for establishing and for keeping up institutions of this kind. If we are to look at it as a work of humanity and charity, an asylum such as this is admirable. If we are to look at it as an index of our actual social condition, its existence is a matter of regret rather than of pride. Being wanted, it is better we should have it; still it would be better if within these walls and within the walls of other establishments such as this, the lesson could be learnt which should render their present application superfluous and obsolete in the future.

We agree with Lord Derby that it has not been satisfactorily proved that insanity is increasing at the present time, but that there have been other causes at work adequate to account for the increased number of insane persons under care. If these causes are carefully investigated, and the operation of them traced, we believe that strong evidence will be furnished that there is not an increased production

of insanity in proportion to the population. To contrast the number of registered insane persons at the present day with the number registered ten years or twenty years ago, and to found upon such contrast a conclusion as to the increase of insanity in the population, is certainly not a scientific procedure; it is very much, in fact, as if one were to contrast the number of persons treated in hospitals at the present day, when there are so many hospitals in the country, with the numbers of persons treated in hospitals fifty years ago, when hospitals were few and far between, and to conclude thereupon that there had been a vast increase of disease; or very much as if one were to contrast the numerous names and various descriptions of skin diseases at the present day with the few such diseases which were described fifty years ago, and to conclude from such contrast that there had been a vast increase of skin diseases in the country. By adopting such a mode of drawing conclusions, an alarmist might go even further, and startle the world with the information that there was an enormous increase in the mortality of the people as compared with the mortality in those "good old times," when there was not an accurate registration of deaths. It is an easy and common fallacy in reasoning to fix upon an antecedent as the sufficient cause of an effect, without taking into consideration other causes which were present, and might have produced the effect. There is the well-known instance of Sir Kenelm Digby's sympathetic powder, the marvellous virtues of which, in the cure of wounds, gained such a reputation that Parliament made him a large grant of money for his discovery. But the singular thing was that the powder was to be applied, not to the wound, but to the knife or other instrument which had inflicted the wound. The latter meanwhile was to be carefully bound up and not to be interfered with. Under these circumstances the wound healed kindly; but the happy result was attributed to the virtues of the sympathetic powder. When kings touched people for scrofula, and recovery afterwards took place, the cure was attributed to the royal touch, and whosoever had dared to question its miraculous virtue would probably have fared worse than one who should at the present day question the uses of a king. It may be that insanity is on the increase; but it has certainly not been proved to be so, and it is wrong to base such a conclusion on the increasing numbers of registered lunatics, without taking into consideration and tracing the

effect of the causes other than an increased production that have been at work, and, as competent inquirers think, are sufficient to account for the increase.

Although we do not think it proved that insanity is increasing in the country, we agree with Lord Derby in looking forward to a time when the amount of idiocy and insanity shall undergo a diminution. In saying, however, that "no one would undertake to affirm that we could trace with certainty the conditions under which insanity will appear, or the cause to which it is due," although this may be done in regard of idiocy, he hardly does justice to the amount of exact knowledge which has been acquired. There is nothing miraculous, nothing mysterious, in the occurrence of the disease, and although we are not able to trace exactly its causation in each case, we are none the less able to point out certain recognised causes which account for a large proportion of the existing insanity. If we look at any book which treats of it, or at the first asylum report which comes to hand, we shall find that hereditary predisposition, intemperance, and mental anxieties and troubles of some kind or other cover nearly the whole field of causation. These are causes which it does not lie beyond the power of man to remove, or if not to remove entirely, at any rate to abate considerably: hereditary predisposition, by abstention from marriage or by prudent intermarriage; intemperance, by temperance in living; mental anxieties, by the cultivation of the mind and by the formation of a habit of self-government. Avoiding intemperance and other excesses, we shall cut off not only the insanity which is directly produced by such excesses, but we shall prevent their indirect effects by removing a fruitful cause of hereditary predisposition to physical and mental degeneracy; and by preventing such native infirmities of brain and mind, we shall cut off the emotional agitations and explosions which are the consequences of such infirmities, and which act as the so-called moral causes of insanity.

If we may rely upon the observations of travellers, there has always been comparatively little insanity among savages. Admitting this to be the case, it is not difficult to guess at the reasons of their comparative immunity. From the three classes of powerful causes of insanity just mentioned they are almost exempt. They do not poison their brain with alcohol until the white man introduces it to them. The weak in mind and body are not carefully attended to and

kept alive as among civilised people, if they are not actually destroyed; by natural or artificial means they are got rid of, so that they do not themselves swell the numbers of insane in their own generation, nor increase them in the next generation by propagating their kind. Savages, again, do not intermarry in the same family; among them the prohibition of marriage extends often to distant relatives; persons having the most distant blood-affinity being forbidden to marry. It can scarcely be doubted that the reason of such prohibition was their experience of the evils resulting from the intermarriages of relatives—an experience which, distinct as it is in the lesson which it teaches, has not yet availed to check the intermarriages of first cousins among civilised people. Lastly, the savage has few and simple wants springing from his appetites, and these he gratifies; he is alike free from the manifold artificial passions and desires which are incident to the multiplied industries and eager competition of an active civilisation, and from the restraints upon his natural passions which civilisation would impose. With him there is no eager straining beyond his strength after social aims that are not intrinsically worth the efforts which they cost, no disappointed ambition from failure to compass such aims, no dejection from the reaction which follows the realisation of an over-rated ambitious passion, no anxious sense of responsibility; he has no life-long hypocrisies to keep up, no tormenting remorse of conscience, no painful reflections of an exaggerated self-consciousness; none, in fact, of the passions which constitute the chief wear and tear of civilized life. The savage rarely or never goes against his conscience, such as it is, by which we mean that moral sentiment which is embodied in the beliefs and customs of his tribe; although, not deeming such things wrong, he may cheat, lie, steal, and violate all the dicta of a true moral sense in his relations with other tribes, or even with the members of his own tribe; he obeys it, as the animal obeys its instinct, without feeling a temptation to violate it. So it comes to pass, perhaps, that he is free from many of the powerful causes of mental derangement which act upon the civilised man, and from some of the forms of mental derangement which afflict the latter.

We can hardly venture to look forward to a time when asylums for idiots and insane persons shall become superfluous and obsolete, but we may confidently look forward to the time when a more exact knowledge of the causes of

idiocy and insanity, and of the laws of their action, shall teach us the way to guard against them, and when a proper education of mankind in accordance with the scientific or inductive method shall get rid of false beliefs and false aims, strengthen the intellectual faculties, and generate an unwillingness, which, accumulating and being transmitted through generations, shall become a moral repugnance to disobey those natural laws which govern, with unfailing constancy, the development of the physical, intellectual, and moral nature of man. There is a boundless perspective of labour and attainments for our descendants,

Et nati natorum et qui nascentur ab illis.

Another Classification of Insanity.

In the "Lancet" of November 15th last, Dr. Bucknill has propounded a new classification of insanity. The criticisms which he passed upon the etiological system of Morel in a former number of this journal (No. 38, p. 286), may be applied in the main, he thinks, to Skae's similar but more elaborate one. He had at one time intended to criticise the system of natural groups which has been proposed by Dr. Skae, but, on re-consideration, he determined to construct a system of his own, "which might more fully answer the purpose for which we needed it—namely, as a nosological scaffolding of form for the guidance of treatment." We append Dr. Bucknill's preliminary remarks, and the scheme which he has constructed:—

The novelty of the scheme of classification now proposed consists in the combination of psychical characters or phenomena with pathogenetic relations and pathological conditions; the first forming the Classes, the second the Orders and Genera, and the third the Species.

Since the *etiological* classifications of Van der Kolk, Morel, and Skae have been published, a most important step, in my opinion, has been taken in advance by the *pathological* classification of Dr. Batty Tuke; but even this thoughtful writer entirely omits all consideration of mental symptoms, and such an omission in a classification of mental diseases seems to me somewhat like the omission of flowers and foliage in a botanical system.

In the formation of classes I have followed Griesinger's simple division into states of psychical depression, psychical exaltation, and psychical debility; substituting, however, the conventional and now thoroughly established terms of Melancholia, Mania, and Dementia.

I have reversed the usual order of mania and melancholia, because

I believe that melancholia is the dominant psychical condition, and that Guislain was only wrong in being too exclusive in his theory that *prenalgie* was the source of all *phrenesie*. Idiocy I have relegated to a sub-class. Pinel included it in dementia, and it was only separated therefrom by Esquirol. Pathologically, the distinction between primary and secondary dementia is at least as great as between brain-defect occurring before and after infancy. Cretinism is not congenital but toxic dementia.

The foundation of the *orders* and *genera* on pathogenetic relations is no doubt a natural one, and I think it can scarcely fail to be practically useful by impressing on the mind the kind of relation which the mental disease has with the bodily condition; for the treatment of the patient, both as to mind and body, must necessarily depend to a very great extent upon this relation.

I do not presume to think that I have enumerated all the *genera* which, eventually, it may be found desirable to distinguish; and I am well aware that the correctness of the position which I have assigned to some of the *genera* in the *orders* is quite open to discussion.

The inclusion of puerperal insanity in the Climacteric order is open to grave objection. This order, however, is intended to include vesanias which arise from or in conditions which are not pathological; and, although a deviation from bodily health generally precedes puerperal insanity, still the puerperal state can no more be considered necessarily a diseased state than that of puberty or old age. If there be a difficulty, the identification of *species* will resolve it, seeing that puerperal insanity may be septicæmic, anæmic, or neuralgic.

Of the *Species* there is little to say, except that they are the most important of all the divisions, and the most imperfect. Much has been left out which ought to have been admitted if knowledge had been sufficient. I trust, however, no condition has been admitted which ought to have been excluded.

Such conditions as are vaguely expressed by the Brunonian terms "sthenic" and "asthenic" have been omitted. The conditions of all the secreting organs have been omitted, simply from lack of sufficient knowledge; and the excess or defect of irritability of the muscles, which form such marked features in mental disease, have been omitted for the same very unsatisfactory reason.

On the other hand, the consideration of abnormal cerebral conditions which have not hitherto been sufficiently regarded in nosologies have been introduced. The ill-understood but undisputed state in which either the brain or the nerves, or both, wear away their physiological powers without interruption or repose, and its reverse, I have designated by the terms *hypertriptic* and *atriptic*—τριβω, to rub.

The *hypertrophic* and *atrophic* conditions of nutrition are well defined, if not yet well investigated; but the *cacotrophic* is a wide field of inquiry, in which ground has hardly yet been broken. Sclerosis of the brain and of the spinal column is cacotrophic. How

many varieties of it are there? If there is a paresic variety, is there not also a syphilitic one, and, may be, some others? In this division into species I claim the aid of the microscopic and chemical pathologist, for upon it is founded the all important question of ultimate diagnosis.

The field for clinical research is the correlation of the classes, species, and genera; but, even while this correlation is in process of being worked out, any concrete case of mental disease which is assigned to its proper place in the divisions of this system will have attributed to it a succession of characteristics which will scarcely fail to aid in the more systematic knowledge of its nature and the more definite aim of its treatment.

If it should be objected that this system is a complicated and artificial one, like the botanical system of Linnæus, the validity of the objection will be fully admitted, with the proviso that a complicated system is needful for complicated and ill understood phenomena. With larger knowledge a more simple and more natural system will take its place.

CLASSES *of Psychical Phenomena.*

1. Melancholia.
2. Mania.
3. Dementia.

SUB-CLASSES *of Psychical Combinations and Transmutations.*

1. Melancholia, simple.
2. „ combined with excitement.
3. „ with stupor (*dementia attonita*).
4. „ mania, and dementia alternating (*folie circulaire*).
5. Mania, simple.
6. „ with depressing emotions.
7. „ intercurrent with melancholia.
8. „ „ dementia.
9. „ alternating with sanity (*recurrent mania*).
10. Dementia, simple and primary.
11. „ consecutive on mania or melancholia.
12. „ congenital. Idiocy and imbecility.

ORDERS *of Pathogenetic Relations.*

1. Simple Insanity. *Idio-encephalic.*
2. Allied insanity.
3. Sequential insanity.
4. Concurrent insanity.
5. Egressing insanity.
6. Metastatic insanity.
7. Climacteric insanity.

GENERA *of Pathogenetic Relations.*

Simple Insanity:

1. Insanity from hereditary predisposition.
2. „ moral influences.
3. „ intellectual overwork.
4. „ direct cerebral injuries.
5. Insanity of general paralysis *(encephalo-rachitis).*

Allied Insanity, influenced by other diseases, but independent:

1. Insanity with cardiac disease.
2. „ pulmonary disease, emphysema, phthisis, &c.
3. „ enteric disease.
4. „ renal and visceral disease, &c.

Sequential Insanity, caused by other disease which has subsided:

1. Insanity following idiopathic and exanthematous fevers.
2. Insanity following inflammations, as pneumonia.
3. „ injuries to the cerebro-spinal axis, apoplexies, &c.

Concurrent Insanity, caused by other diseases or diseased conditions which continue to exist:

1. Insanity from cachexias—syphilitic, chlorotic, cretinic, &c.
2. „ epilepsy.
3. „ chorea.
4. „ alcoholism.
5. „ masturbation.
6. „ starvation.

Egressing Insanity, growing out of the former disease, of which it is an exaggeration:

1. Insanity egressing from hysteria.
2. „ „ ecstasy.
3. „ „ hypochondriasis.

Metastatic Insanity, from the shifting or ceasing of other disease or suppression of discharges:

1. Insanity from rheumatism.
2. „ erysipelas and skin diseases.
3. „ suppression of habitual discharges, hæmorrhoids, or ulcers.
4. „ suppression of the catamenia.

Climacteric Insanity, caused by natural conditions of development and decline:

1. Insanity of the pregnant and puerperal state.
2. „ pubescence.
3. „ climacteric decline.
4. „ old age.

SPECIES *of Pathological Conditions differentiating the Genera by Pathological Conditions of the Brain and Nerves, of the Blood and the Nutrition.*

Neurotic:
1. Hyperæsthetic.
2. Anæsthetic.
3. Neuralgic.
4. Sympathetic.
5. Apathetic.
6. Hypertriptic.
7. Atriptic.

Hæmic:
8. Hyperæmic.
9. Anæmic.
10. Septicæmic.
11. Uræmic.
12. Toxic.

Trophic:
13. Hypertrophic.
14. Atrophic.
15. Cacotrophic or cachectic.

Restrictions to the Liberty of Marriage.

Mr. George Darwin contributes to the *Contemporary Review* of August last a very thoughtful paper on beneficial restrictions to the liberty of marriage. The following extracts which we make will serve to exhibit the author's stand-point, and to stimulate reflection upon a vastly important question which mankind will sooner or later have to face and answer. We do not think it has been proved that insanity has increased out of proportion to the population; but there can be no doubt of the influence of hereditary predisposition in the causation of such insanity as exists.

"The object of this article is to point out how modern scientific doctrines may be expected in the future to affect the personal liberty of individuals in the matter of marriage. Up to the present period of the world's history the social struggles of mankind have been principally directed towards the attainment by the individual of an ever increasing emancipation from the restraints exercised over him by other members of society. One of the most prominent ideas of Christianity is the personal responsibility of each man for the salvation of his own soul, and, as a consequence, his mental independence from others; any other idea than that of the complete independence of his bodily frame would not be likely to present itself to the mind until evolutional doctrines had obtained a considerable prominence. But these modern doctrines go to show that our mental, as well as our bodily structure, is the direct outcome of that of preceding generations, and that we, the living generation, are like the living fringe of the coral reef resting on an extinct basis afforded by our forefathers, and shall in our own turn form a basis for our descendants. We are now beginning to realize that the members of a society form a whole, in which the constituents are but slightly more independent

than are the individual cells of an organic being, and, indeed, according to the belief of many great physiologists, each cell is to a certain extent a distinct individual, and vast numbers of such individuals are, in fact, associated in a colony for the purpose of mutual assistance, and form in the whole a living organism. I have in this article assumed the truth of evolutional doctrines, and persons who do not accept them will find the force of what I have to say either much weakened, or wholly destroyed."

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"If we bear in mind the result of M. Béhic's investigation, viz., that insanity is transmittable to a greater extent after the development of the disease in the parent than whilst it is still latent, we are led almost irresistibly to an enactment that when a divorce is sued for, it shall not be refused merely on the ground of the insanity or idiocy of either party."

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"A next step, and one to my mind as urgently demanded on the grounds of justice as the former, is that insanity or idiocy should of itself form a ground of divorce."

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"Further changes in the same direction may be made by providing that proof of having never suffered from insanity should be a prerequisite to marriage." * * * * * *

"There are many diseases which seem to require attention on account of their strong hereditary characters." * * *

"That consumption runs in families is too notorious to need any remarks on my part. We shall, to a certain extent, in combating insanity and idiocy, combat all these diseases, since, as was before remarked, they are mostly commutable with mental incapacity; but we can only make a really successful attack by compelling the production, before marriage, of a clean bill of health in the party, and ultimately in his parents and ancestors. Syphilis would have to be included, in case, as is only too likely, medical science and other preventive legislation should fail in depriving it of its hereditary character, or in confining its ravages to small limits." * * *

"Simultaneously with the diffusion of the belief in the truth of the doctrine of heredity, will come the recognition that it is as much a duty to transmit to the rising generation vigorous minds and bodies, as to hand down to them a firmly constituted society and government—to which latter point attention has hitherto been almost exclusively directed. * * * * * *

"It is in his own case that man ventures to neglect the knowledge he has acquired of the beneficial effects of careful breeding." * *

"The general result to be deduced from these, and from other passages of a similar nature, seems to be that mental diseases are and might *à priori* be expected to be, on the increase, and that, as I

before observed, such increase will proceed by a geometrical ratio (although such ratio may not greatly exceed unity), that the extent to which the disease is inherited is enormous and very alarming, and that other diseases act and react on one another in the production of insanity." * * * * * * *

"Does it not appear, then, that we are bound to consider steps for the excision of this canker, and that those races which delay making the endeavour must fall behind in the struggle for life? Let us hope for the good of the world that the Teutonic races will take the lead in the attempt."

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"The ultimate restrictions, then, to liberty of marriage would be (besides those already in force, less the absurd laws against marriage with a deceased wife's sister or husband's brother)—(1). Divorce on the appearance of certain diseases; (2.) the passing of a medical examination for this same class of diseases; and (3.) the production of an untainted pedigree. The medical examination might in some respects be modelled on that in force in Germany for military service, when a man is not ultimately rejected until he has been refused in three successive years. Could such legislation come into force, coupled with some such scheme as that proposed by Mr. Galton, not only might 'a cubit be added to our stature,' but the capacity for happiness in the world might be largely augmented, by the destruction of that most potent cause of unhappiness, ill health; several years might be added to human life, our ability for work and mental power immensely increased, and the coming race might end by becoming as much superior to ourselves in mind and body as the racehorse is superior in form to a shaggy pony." * * * *

"Does not this serve as an answer to those objectors who would say, 'We shall never submit to having our marriage laws more restricted?' For when one can point out so great a diversity of restrictions, many of which are no longer maintained for any good reason, it is surely absurd to say that nothing new will be endured, even though it may be founded on the best of reasons. Our state of civilization has so diminished the force of natural selection that we cannot much longer afford to neglect some process of artificial selection to replace the method which nature has been carrying on from the beginning, and that nation which has first the courage to adopt some such plan, must undoubtedly gain on others in the vigour of its members in mind and body."

Dr. Gregory on Madness.

The following letter, written by Dr. James G. Gregory (the third), the celebrated Professor of Practice of Medicine in the University of Edinburgh, and the author of "Philosophical and Literary Essays," has been forwarded to

me by my relative, Mrs. Balfour, having been found by her amongst the papers of her grandfather, the late Principal Baird, of the University of Edinburgh. It is evidently a reply to queries addressed to the Professor by the Principal, and is interesting as supplying Gregory's definitions of some terms, as to the exact meaning of which we are still disputing. J. Crichton Browne, M.D.

Edin., Monday, 2nd Dec., 1816.

Dear Sir,

I am very sorry that I have kept so long your paper (your Schedule of Queries) and the printed (very shocking) report about mad people.

Your Queries appear to me very judicious and complete. Nothing of any consequence occurs to me that I could wish to add to them.

It is not easy to describe briefly, or define in few words, what is meant either by *ideotism* or by *madness*.

A person whose *memory* and *judgment* are so weak and imperfect as to be unfit for the common business and duties of life is deemed an ideot.

A person who adopts and believes (not from false information, but spontaneously and without any *rational* or *plausible* ground of belief) *erroneous notions*, and gives way to *violent emotion* or *passion*, without any adequate moral cause, and whose looks and demeanour are particular, and wild, different from those of people who are in their senses, and from what his were when he was well, is held to be mad.

But either madness or ideotism may come on very gradually. Madness often does so. I have seen ideotism do so along with or after paralytic or epileptic affections. I have seen very furious madness supervene, sometimes suddenly, sometimes gradually, on such ideotism. Violent madness often passes into perfect hopeless ideotism. In short, sound sense, great talents or genius, downright madness and perfect ideotism may pass into one another, either quickly or by insensible degrees.

When a person has *erroneous notions* on *one subject only* or even on a *very few particular subjects*, but has *just notions* on other subjects (like Don Quixote on "Knight Errantry," or "Simon Brown about his soul being miraculously taken away from him," &c., &c.), it is called in our *slang* language Melancholia; when a person has *erroneous notions*, very generally on many or all subjects; when his thoughts are not connected in the usual manner (by their natural or habitual relations), but are desultory and rapid, so that he has not the natural command of them, we call such a disorder Mania. This much more frequently than Melancholia is connected with violent passion and ferocity.

Yours most truly,
J. Gregory.

PART II.—REVIEWS.

Mind and Body. The Theories of their Relation. By Alexander Bain, LL.D. Henry S. King and Co. 1873.

This is the fourth volume of the International Scientific Series now in course of publication. When the series is complete, it should, if the fair promise of its announcement be kept, furnish general readers with an instructive account of the present state of knowledge in various interesting branches of scientific inquiry. The difficulty of the respective authors will be probably to steer a happy course between a too elementary treatment of their subject, and a too technical exposition of it. We suppose that the volumes are not intended to be of a character such as would fit them for use in schools, but to set forth in as popular a manner as may be practicable the highest results of knowledge, and the direction which inquiry is taking in the different subjects with which they deal.

Mr. Bain has been modest in the plan which he has laid down for himself; he has been content to expound in the plainest terms his views of the relations of mind and body, and the theories which have at different times been propounded on the subject. In fact, the book is mainly a concise summary of some of the views which he has enunciated in his well-known works on the Senses and the Intellect, and the Emotions and the Will. If we were to make any complaint it would be that it is in some parts, at any rate, a little too elementary. Sentences like these, for instance, read somewhat strangely in an *international* volume.

> The red flesh of meat, called muscular tissue, is a stringy substance made up into separate masses called muscles, of the most various shapes and sizes, but all agreeing in one property, called contractility or forcible shrinking. A muscle has its two extremities attached to bones or other parts, and in contracting it draws the two attachments nearer one another, and thereby effects the movements that we see.

Again :—

> On examination we discover a set of silvery threads, or cords of various sizes, ramifying from centres to all parts of the body, including both sense-surfaces and muscles. These are the nerves. The

centres whence they ramify are constituted by one large continuous lump, principally of the same silvery material, occupying the skull or cranium as a rounded mass, and continuing into the backbone as a long flattened rod, about half an inch across. The mass in the skull is the brain ; the rod in the backbone is the spinal cord.

This style strikes us as almost too simple and didactic. Moreover, we doubt whether, taking it on its own ground, it is adapted to convey to those who need such simple instruction, correct and useful notions of what muscles and nerves are. However, if it be an error, it is an error on the right side, and Mr. Bain is the best judge of the most suitable means for accomplishing his plan. His book has already reached a second edition, and that must be accepted as a sufficient answer to criticism.

It is not necessary to inform those who have read Mr. Bain's systematic works that he fully accepts the physiological basis of mental function. His comprehensive statement of the physical conditions of all consciousness is as follows :—"*An increase or variation of the nerve-currents of the brain sufficiently energetic and diffused to affect the combined system of the out-carrying nerves (both motor nerves and nerves of the viscera).*" Although this statement is physical enough to satisfy the most earnest advocate of the physiological method of the study of mind, it is perhaps a pity that Mr. Bain uses the term nerve-currents so much as he does. So far as we know, there is really no evidence of the existence of such currents as the actual conditions of any state of consciousness. No doubt there is some molecular change in the nerve elements as the physical condition of all function, which might be described as a current of molecular action, and which is probably all that Mr. Bain means to imply by the expression nerve-current, but we cannot help thinking that it is an expression which will convey much more than this to his readers. Moreover, his statement fails to convey the idea—would seem implicitly to exclude it—that there are nerve-currents sufficiently energetic and diffused to affect the out-carrying nerves which are nevertheless not accompanied by consciousness; for it is certain that ideas, or the physical changes that are the condition of them, may be excited into activity, and may be expressed in movements, without an excitation of consciousness.

When speaking of the physical theory of pleasure and pain in its bearing on punishment and prison discipline—of states of pleasure as connected with an increase, states of

pain with an abatement, of some or all of the vital functions —Mr. Bain drily makes a suggestion which may be commended to the consideration of the advocates of flogging. As the sole object of flogging is to produce a painful condition of the nerves, this might be effected, without injury to the skin, by having recourse to electricity.

> By electrical shocks and currents any amount of torture might be inflicted; and the graduation might be made with scientific precision. The punishment would be less revolting to the spectator and the general public, than floggings, while it would not be less awful to the criminal himself; the mystery of it would haunt the imagination, and there would be no conceivable attitude of alleviating endurance. The terrific power exercised by an operator, through the lightest finger touch, would make more deeply felt the humiliating prostration of the victim. If capital punishments are to be permanently maintained, much could be said for discarding strangulation, and substituting an electric shock.

Without doubt there are many persons who, though earnest advocates of flogging as a punishment of criminals, would look upon the mode of graduated torture suggested by Mr. Bain, as a cruel thing; who would, in fact, be sincerely horrified at it, without being conscious of any inconsistency in themselves. It is not the custom of the large majority of mankind to use their reason to examine the ground work of what they are pleased to think their beliefs.

The groundwork of volition, or the physical foundation of the will, Mr. Bain believes to be formed of two primordial elements, on which a large superstructure of acquired connexion between feelings and specific movements is built in mature life. The first of these is the spontaneous energy or surplus activity of the system, or the disposition of the moving organs to come into operation of themselves, previous to, and apart from, the stimulation of the senses or the feelings. In the course of education the spontaneity comes under the guidance of the feelings, and is so linked with them as to be an instrument of our well-being, in promoting pleasures and removing pains. "The voice by mere spontaneity sends forth sounds, the ear controls and directs them into melody, and the wants of the system make them useful in other ways." For the second element we must refer to the principle of self-conservation or fundamental law of pleasure and pain—the law that connects pleasure with increase of vital power, pain with the diminution of

vital power. A pleasurable feeling is the stimulus of heightened activity, the pleasure thus feeding itself. In that connexion we have, as Mr. Bain believes, the deepest foundation of the will.

In his chapter on the groundwork of Thought, Intellect, or Knowledge, Mr. Bain goes rapidly over the same ground as he has gone over in his larger work. But he seems to us to be more deeply inspired with the physiological spirit than he was formerly, and he is more instructive and suggestive in consequence. He makes an interesting estimate of the number of nerve cells and their connexions in the grey matter of the convolutions, for the purpose of showing that numerous as are the embodiments of thought to be provided for, the nervous elements are on a corresponding scale, and that there is no improbability in supposing an independent nervous track for each separate mental acquisition. After pointing out that cerebral growths, of a certain typical complication, cannot be adequately stated in hundreds; that they amount to thousands, and even tens of thousands; that they scarcely count by hundreds of thousands; he says:—

> Let us make a rough estimate of the nervous elements—fibres and corpuscles—with a view to compare the number of these with the number of our acquisitions.
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> The thin cake of grey substance, surrounding the hemispheres of the brain, and extended into many doublings by the furrowed or convoluted structure, is somewhat difficult to measure. It has been estimated at upwards of 300 square inches, or as nearly equal to a square surface of 18 inches in the side. Its thickness is variable, but, on an average, it may be stated at one-tenth of an inch. It is the largest accumulation of grey matter in the body. It is made up of several layers of grey substance divided by layers of white substance. The grey substance is a nearly compact mass of corpuscles, of various size. The large caudate nerve-cells are mingled with very small corpuscles, less than the thousandth of an inch in diameter. Allowing for intervals, we may suppose that a linear row of five hundred cells occupies an inch; thus giving a quarter of a million to the square inch, for 300 inches. If one-half of the thickness of the layer is made up of fibres, the corpuscles or cells, taken by themselves, would be a mass one-twentieth of an inch thick, say sixteen cells in the depth. Multiplying these numbers together, we should reach a total of twelve hundred millions of cells in the grey covering of the hemisphere. As every cell is united with at least two fibres, often many more, we may multiply this number by four, for the number of connecting fibres attached to the mass; which gives four thousand eight hundred millions of fibres. Assume the respective number to be (corpuscles)

one thousand, and (fibres) five thousand millions, and make the comparison with our acquisitions as follows :—

With a total of 50,000 acquisitions, evenly spread over the whole of the hemispheres, there would be for each nervous grouping at the rate of 20,000 cells and 100,000 fibres.

With a total of 200,000 acquisitions of the assumed types, which would certainly include the most retentive and most richly endowed minds, there would be for each nervous grouping 5,000 cells and 25,000 fibres. This leaves out of account a very considerable mass of nervous matter in the spinal cord, medulla oblongata, cerebellum, and the lesser grey centres of the brains; in all of which there are very large deposits of grey matter, with communicating white fibres to match.

Mr. Bain next goes a step further, and proceeds to inquire, and to illustrate by diagram, how the various groupings may arise, and how they can be isolated so as to preserve the requisite distinctness in our terms of thought. For the description of this ingenious hypothetical arrangement we must refer the reader to the book itself.

A chapter follows, entitled "How are Mind and Body United?" Though agreeing with most of what Mr. Bain says in it, there are some statements which seem to us to be open to criticism, and which, if space permitted, it would have been interesting to have discussed. Here is one of them, which we are tempted to pronounce not only inconsistent with Mr. Bain's whole position as a thinker, and with both the spirit and the letter of much that he has said in this volume, but very much like a contradiction in terms, or an incomprehensible paradox, if it be not a metaphysical dust-raising for the benefit of weak-kneed brethren. Speaking of mind, he says—"There is *an alliance with matter*, with the object, or extended world; but the thing allied, *the mind proper*, has itself no extension, and cannot be joined in local union." Here, then, we have a *thing*, which has no *extension*, which is in *alliance with matter*, and which, nevertheless, cannot be *joined in local union!* In so far as the proposition has meaning, it would seem to be a contradiction in terms. The fact is that Mr. Bain, in propounding the dogma, is harking back to an extraordinary definition of mind which he enunciated long ago, "as the sum total of subject-experiences, that which has not extension," in other words, the sum total of the experiences of that which has not extension, and yet that something a subject! It would have been well, perhaps, if he had taken another step, and given—what is certainly

needed—a further definition of the subject, and of its position in regard to extension.

The volume concludes with a concise history of the various theories which have been entertained at different times with regard to the soul. Although the book is fragmentary, and, as a whole, hardly fulfils the high expectations which its title and Mr. Bain's reputation had led us to form, we have no doubt that it will do much good, and that it will be a welcome addition to the library of the earnest student of mind and body.

On Megrim, Sick-Headache, and some Allied Disorders. A Contribution to the Pathology of Nerve-Storms. By Edward Liveing, M.D., Cantab. London: J. and A. Churchill, 1873.

This a very complete treatise on the subject with which it deals. In the first chapter the author has set himself to work to define and identify a natural group or family of disorders which may properly be included under the comprehensive term *Megrim*. These disorders he holds to be intimately allied—to be, in fact, merely different degrees of development, or, perhaps, slightly different localisations of the same essential kind of disturbance traversing the sensory tract of the encephalon. The descriptions of illustrative cases bring out in an effective way the particular features of the different varieties of the group, which range from the simplest hemicranial pain, transient half-vision, or sick-giddiness, to cases which present marked phenomena of sensorial disturbance, and even disorder of ideation and failure of speech. The close affinity of them, as members of the same family, is shown by the gradual transition between the different forms of seizure in different individuals, by transformation in the character of the seizures in the same individual, and by their hereditary nature; the same type being transmitted from parents to children as a rule, but occasionally two or three forms of the affection being met with in the same family.

The second chapter is devoted to an enumeration and discussion of the bodily conditions which seem in any way to favour the development of the disease, and of the usual exciting causes. One fact which Dr. Liveing brings into prominence, and on which he lays much stress, is its hereditary character. "There is no feature," he says,

"which is more constant in the history of the malady than its hereditary character, and none which so forcibly confirms its claim to be regarded, in the majority of instances, as an idiopathic affection, or links it more closely to the natural family of neuroses." For what he says of the different accessory and exciting causes, the influence of each of which he discusses at length, we must refer to the book itself.

In the third chapter Dr. Liveing describes at length the phenomena of the paroxysm. The character and the meaning of the different symptoms, the frequency and order of their occurrence, their pathological nature, and their termination, are discussed fully in the light of his own observations, and of the observations of those who have given attention to them. We have been pleased to see that he has found occasion in this chapter to refer to some of the suggestive reflections and acute observations of Dr. Darwin, the distinguished author of the "Zoonomia." It is, indeed, one of the merits of Dr. Liveing's book that he has embodied in it the results of his studies of old writers as well as of recent works.

The fourth chapter, in which he treats of the affinities of megrim with other neuroses, will probably be the most interesting to the readers of this Journal. With Epilepsy, Epileptic Vertigo, Spasmodic Croup, Spasmodic Asthma, Angina Pectoris, Gastralgia, Tic-douloureux, Intermittent and Paroxysmal Insanity, and some other disorders, he believes megrim to have intimate relations. After setting forth in a connected way the common characters of the leading members of the group, including the influence of various exciting causes of the seizures, he points out a still more intimate relationship between them in the occasional replacement of one form of paroxysm by another in the same individual, as well as in the occurrence of intermediate and transitional forms. With regard to the common characters of these neurosal affections, as they are described by Dr. Liveing: they are all so-called *functional disorders*, the phenomena recurring at intervals in paroxysms of irregular and uncoordinated nervous action; the predisposition of the nervous system, or of some parts of it, to these modes of irregular activity appears to be, in a large proportion of cases, *innate and hereditary;* they exhibit a tendency to make their first appearance at certain ages, and frequently *an approximate limitation to a determinate period of life*, varying with the nature of the particular neurosis; the influence of sex is

often strikingly apparent in these neuroses, some being much more frequently met with in males, others in females; the seizures are of a *paroxysmal character*, that is, the disorder manifests itself from time to time in fits of morbid nervous action, which often rise gradually to a certain pitch of intensity and then subside, with intervals of health or comparative health between; they *return periodically*, or approximately so, as if they were the result of a gradually accumulating tension; a kind of *compensation* is observable in many of them, a longer interval being followed by a stronger seizure, or a stronger seizure by a longer exemption; they resemble one another in the variety and similarity of the influences which operate as existing or accessory causes of the seizures.

In the fifth chapter Dr. Liveing treats of the pathology of megrim and allied disorders, enumerating the different pathological theories that have been propounded, and discussing them in a thorough and comprehensive manner. It is a long chapter, but we do not think that the reader will find it either tedious or unprofitable reading. It has an importance beyond that of the malady to which it more immediately refers, as the author holds the pathology of megrim to be in the main the pathology of the whole group of disorders to which it belongs, and as it has been his intention accordingly to exhibit the gradual progress of opinion as to the nature and cause of neurosal phenomena up to the present time. Some few of the theories that have been propounded he puts aside as purely imaginary; but he believes that many of them are not so much antagonistic as they are partial and incomplete representations of the facts with which they deal. He advocates finally a view which considers these paroxysmal nervous affections in the light of nerve-storms, a view which, while not ignoring any facts embraced by other theories, assigns them a different value and interpretation. But we shall allow Dr. Liveing to expound this theory in his own words:—

> The fundamental cause of all neuroses is to be found, not in any irritation of the visceral or cutaneous periphery, nor in any disorder or irregularity of the circulation, but in a primary and often hereditary vice or morbid disposition of the nervous system itself; this consists in a tendency on the part of the nervous centres to the irregular accumulation and discharge of nerve force—to disruptive and uncoordinated action, in fact; and the concentration of this tendency in particular localities or about particular foci, will mainly determine the

character of the neuroses in question. The immediate antecedent of the attack is a condition of unstable equilibrium, and gradually accumulating tension in the parts of the nervous system more immediately concerned, while the paroxysm itself may be likened to a *storm*, by which this condition is dispersed and equilibrium for a time restored.

We have instances of sensorial storms in the paroxysms of epileptiform neuralgia, which have been described by Trousseau; of ideational, in epileptic delirium and mania transitoria; of motor, in the convulsive attacks or eclampsia of infantile life; of vasomotor or trophic, in acute pyrexial or local inflammatory paroxysms, like those respectively of ague or gout, and in the profuse perspirations or copious diuresis of certain nervous and critical states.

The last chapter deals with the treatment of the disease, and it is followed by an appendix containing a description of some additional cases, and by an analytical table giving the essential particulars of sixty-seven cases. It only remains for us to add, in concluding this notice, that we cordially recommend the book to the attention of our readers, who will find it instructive and suggestive in its matter, comprehensive in its plan, and clear and pleasant in its style. Representing the result of genuine work, it will long occupy a position as a standard treatise.

The West Riding Lunatic Asylum Medical Reports. Edited by J. Crichton Browne, M.D. Vol. III. Smith, Elder, and Co., 1873.

We ought to have noticed this excellent volume of Reports before now, and to have noticed it more at length than we are able to do on this occasion. Dr. Browne is certainly doing not a little by his organization of workers to remove the reproach which has been cast upon medical superintendents of asylums, that they leave unused the vast amount of valuable material for scientific research which lies at their disposal.

The first paper is an address on the convolutions of the human brain, considered in relation to the intelligence, which was delivered by Professor Turner, of Edinburgh, at a medical conversazione, at the West Riding Asylum. We need hardly say that it is marked by the thoroughness of knowledge and caution of statement which characterise all that Professor Turner writes. He considers, first, the mass and weight of the brain, coming to the conclusion, after a

careful enumeration of observations, that "the size and weight of the brain cannot *per se* give an exact method of estimating the intellectual power of the individual, and that a high brain weight and great intellectual capacity are not necessarily correlated with each other." He next deals with the external configuration of the brain, concluding his summary of the observations which have been made on the subject with the statement that "it is clear that a correspondence in morphological configuration by no means necessitates either equality or similarity in functional power. In estimating the value of the convolutions, therefore, either when the brains of men are compared with each other, or with those of animals, other factors are to be considered than those afforded by size, or weight, or form, or modes of arrangement." Passing next to an account of the general facts of the internal structure of the brain, he reaches the important conclusion that the convolutionary area of the hemispheres does not form a system dissociated from the other nerve-centres, that not only are convolutions in the same hemisphere and in opposite hemispheres connected together, but that they are anatomically continuous with the various centres from which the cerebro-spinal nerves arise, and through these are brought into relation with the outer world." Lastly, he takes into consideration the vascular supply to the brain, pointing out how abundant it is to the grey matter of the convolutions.

Having gone through the survey of the more important facts, the question arises—"Are the convolutions distinct organs, each endowed with properties peculiar to and characteristic of itself?" After passing in review the general character of the evidence which has been adduced in support of the proposition that particular faculties are localised in special convolutions, Professor Turner points out that the convolutions, though they exhibit special forms, are not so individualised as to be disconnected from each other, but that the grey matter on the surface of one convolution forms invariably a continuous layer with the grey matter of all the convolutions which immediately surround it. Whether there be a specialisation of internal structure is a question that cannot be answered until we have fuller and more precise information. He thinks that it is in the study of the deeper connections of the convolutions—the differences in their commissural connections, that we must look with most hope for evidence in favour of their functional differences. "The fact

that communications are established between certain convolutions, and not between others, points to the inference that certain gyri are not only anatomically but physiologically associated directly with each other; and it is possible not only that particular combinations of convolutions, through an interchange of commissural fibres, may condition a particular state of intellectual activity, but that these combinations associate various convolutions together in the performance of a given intellectual act, just as in the muscular system several muscles are, as a rule, associated together for the performance of a given movement."

The second paper in the volume contains a description of Prof. Ferrier's now well-known researches into the functions of the cerebral convolutions. These were first undertaken at the West Riding Asylum, Dr. Browne having furnished a liberal supply of fowls, guinea-pigs, rabbits, cats, and dogs. In our last number we gave the conclusions to which Dr. Ferrier has come; and as the researches will no doubt be soon presented in a more complete form, we shall not attempt to discuss their meaning and importance on this occasion.

Mr. Herbert Major continues his observations on the "Histology of the Brain in the Insane." In a case of chronic brain-wasting he found an increase in the number of the cells of the convolutions, taken collectively, the increase being due to an excess of the small corpuscles; a deficiency in the number of the large pyramidal cells, a want of distinctness in their outline and branches, the nuclei of large size, but altered in form; an increase in the density of the outer nerve layer, and want of definition of the others. There was also a great increase in the size of the vessels, due in most instances to a state of dilatation, with thickening of the walls by a proliferation of nuclei and morbid deposits of hæmatoid in fat, &c.; while there were large perivascular canals. In a case of senile atrophy he observed a deposit of fatty granules and small compound granular bodies on the walls of the vessels, and a fatty and pigmentary degeneration of the cells, especially of the large pyramidal cells, reaching in its last stages such an extent that the whole cell is reduced to a simple mass of granules, without branches, cell-wall, or nucleus. "It must not be supposed that in the case of a few cells only is the degeneration to be observed; on the contrary, it is rarely that a cell having fairly normal characters is to be seen." He describes also the morbid appearances met with in four cases of general paralysis. In one of these

he met with a peculiar condition, such as he has never before met with either in health or disease: it consisted in the presence of nerve-cells of immense size, situate about midway in the depth of the cortical layer. They had a more or less pyramidal form, their branches were large and numerous, sometimes as many as eight to a single cell, and they were few in number compared with other cells. As to their pathological significance Mr. Major is not able at present to form an opinion.

Dr. Milner Fothergill contributes a paper on the "Heart Sounds in General Paralysis of the Insane." From an examination of the patients labouring under that disease in the West Riding Asylum, he arrives at these conclusions—that in general paralysis, and in other conditions of cerebral hyperæmia, the heart's aortic second sound is usually accentuated; that the cerebral hyperæmia is connected with the perivascular lymph-spaces; and that a species of antagonism would appear to exist between heart disease and insane conditions associated with cerebral hyperæmia and mental exaltation, heart disease being somewhat rare among the insane, while disease of cerebral vessels is the reverse.

A paper on the "Power of Perceiving Colours" possessed by the insane, by Dr. McDowall, is preliminary to a series of extensive inquiries which he proposes to make, and to describe in a future report. He hopes to supplement these investigations by ophthalmoscopic and microscopic observations of the retina, when possible, and by the record of inquiries made of convalescent patients as to the disturbances of vision which they experienced during their illness.

Dr. Crichton Browne gives the results of his experience of the use of Nitrite of Amyl in Epilepsy. Epileptic patients are highly susceptible to the inhalation of the nitrite, while general paralytics are much less so. He administered it regularly to a patient who, at the time, was having one fit every day with considerable punctuality, in the hope that it might, when inhaled near the time when the fit was due, so dilate the vessels as to counteract the spasmodic contraction which is presumed to occur at the commencement of the seizure. The results in this case exceeded his most sanguine expectations. And the results of further experience have been such as to convince him that the inhalation of the nitrite will be found invaluable in many cases, in not only postponing but altogether preventing epileptic seizures. He

has also found it most useful in the condition called the *status epilepticus*, where there is a rapid succession of fits without intervening consciousness. At some future time he intends to place on record the results of his further experience of this agent in the treatment of epilepsy.

Dr. Hughlings Jackson has contributed a paper entitled "Observations on the Localisation of Movements in the Cerebral Hemispheres," and another paper on "The Anatomical, Physiological, and Pathological Investigation of Epilepsies." They are a reiteration of views which he has expressed on former occasions, but they fitly have a place in the same volume which contains the results of Dr. Ferrier's investigations. But why does Dr. Jackson deal so profusely in italics? No young lady in her teens writing to her dearest friend could be more liberal in underlining words and sentences. As an observer there is no one for whom we entertain a greater respect than for Dr. Jackson, but as a writer he drives us to despair; having done which he proceeds cruelly to pelt us with italics. We trust he will pardon us for laying down this as a literary canon: that a writer who has clearly conceived his ideas, and who has acquired the power of clearly expressing them, may presume the existence of sufficient intelligence in his readers to render it unnecessary for him ever to use italics.

Dr. Wilkie Burman contributes an elaborate paper in which he considers fully the existence of a probable causal relation between Heart Disease and Insanity. He believes "further observation will show—as I believe my own results justify the statement—that heart disease has really more to do with the production of insanity than is now commonly supposed." He finds, in fact, that there is a very striking and remarkable relation between the two diseases in their comparative local distribution, a relation which cannot be doubted to have some special significance, and that heart disease, in its various forms, is "exceedingly common amongst the insane, and, presumably, much more frequently met with in asylums than out of them." His results, it will be observed, are not in accord with those reached by Dr. Fothergill. "The forms of insanity most commonly associated with heart disease are," Dr. Burman thinks, "*hypochondriacal melancholia*, that particular form of chronic mania termed *monomania of suspicion*, and such *modified* forms of general insanity as those in which the patients are *sullen* and *morose*, or *impulsive*; and the very great frequency of heart disease

in those forms and modifications of insanity justifies a strong suspicion that it is associated with them in some *causal* relation, whether it be exciting, modifying, or predisposing."

Two or three other papers, which we are unable to notice now, go to make up an interesting volume of reports.

A Phrenologist amongst the Todas; or, The Study of a Primitive Tribe in South India. By William E. Marshall, Lieutenant-Colonel of Her Majesty's Bengal Staff Corps. Longmans, Green, and Co. 1873.

The Todas are a primitive tribe, numbering about 700 souls, dwelling on a plateau among the Nilagiri mountains of South India, and occupied in pastoral pursuits, the chief of which is the herding of buffalos, of which they possess a very fine species. They keep no other description of animals save cats. The country which they inhabit, consisting of rounded hills and tracts of rolling prairie—the hills as accessible as those of Malvern, and the prairie stretching like the billows of the ocean in long undulations—is covered with a good soil, which in the moist hollows is eminently rich and productive. The land is accessible to the plough, and there is excellent clay for pottery. An industrious and energetic people might make it a paradise, that is, we presume, convert it into brickfields, and cover it with smoke-belching manufactories. But the Toda cares not to do more than provide for his daily needs. His cattle afford him nearly all he wants, for he subsists almost entirely on milk: why should he work? The rice, wheat, sugar, salt, and tobacco which he consumes he obtains from neighbouring tribes by the barter or sale of his surplus nei—a clarified butter. They are not flesh-eaters, and used no intoxicating liquor before they came in contact with the English. A simple, thriftless, idle race, without any taint of the ferocity of savages, building for themselves small beehive-like huts, to enter which they must crouch, or crawl on all fours, they go on as their forefathers for generations apparently have gone on before them—scrupulously following certain peculiar customs without being able to give any other explanation of them than that "It is our custom."

Colonel Marshall, who is an ardent phrenologist, made many examinations and measurements of their heads, and he found their qualities of mind to conform exactly with the phrenological conformation of their heads. They are,

without exception, dolicho-cephalic or narrow-long-headed; wanting, in fact, those active qualities which, he holds, are invariably accompanied by large size of the groups of organs, situated at the sides of the cranium, and forming, when well developed, the brachy-cephalic head.

As is the case in many other parts of India, there is a great disparity between the numbers of the sexes, the ratio of males to females being at 100 to 75.

The Todas are not troubled with much religious superstition. They do not address supplications to any personal god, have no idols or images, and make no sacrifices; they salaam to the rising and setting sun, and to the moon at night, looking apparently on these luminaries as God or Lord, without having any clear ideas with regard to their powers. Colonel Marshall is not prepared to say that they have really no god, for they acknowledge vaguely the existence of Usuru Swâmi, a sort of chief god, but he is certain that they have no definite conception of a Supreme Being. One clan among them, the Pekkans, who are poor and have few herds, have no occasion for a god. "They don't want a god," said his informant. No property, no god! When they die the Todas go to Amnôr, the next world, which is exactly like this, and to which their buffalos go also, to supply them with milk. It is situated far away in the west, "where the sun goes down." Most of their words referring to religion being almost pure Sanscrit, the Colonel believes that the vague and rude ideas on religious subjects which they have have been acquired by them quite in modern times, from Brahminical sources, through their neighbours, the Hindu Badagos, with whom they have for several generations been on intimate terms.

Formerly it was the custom among the Todas to kill female children, one or two girls being considered enough in a family, but the practice has now died out. An old woman used to take the child as soon as it was born and suffocate it by pressing a cloth over its mouth and nostrils. For this she received four annas, which is equal to sixpence. Colonel Marshall accounts for the present disparity of numbers between the sexes by supposing that the result of long continued infanticide has been to create a male-producing variety of man. If the males are kept alive, and the females are killed, a proportion of the males will represent families in which the tendency to produce sons is great, while a proportion of the extinguished females would belong to families

in which the tendency was to produce female children. With their extinction there would be an extinction of much of this tendency, while with the survival of the males would survive a proportionate tendency to produce male children. Hence the continuance of the disproportion between the number of the sexes after the cessation of the practice of infanticide.

Polyandry is a recognised institution among the Todas, one woman being sometimes the lawful wife of several men, either brothers or near relations. In this custom they resemble our British fathers of Celtic days, of whom Cæsar wrote, "It was common for a number of brothers or other near relations to use their wives promiscuously." Formerly the custom was very general among the Todas, but there seems to be a growing tendency for a man to have a wife to himself when he can afford it. Colonel Marshall does not seem to be aware that the practice of polyandry may account for the preponderance of males in the population. It is a result of observation that where polygamy prevails, as among the Mormons, there is a preponderance of female over male births; in lands where polyandry is the rule there is a preponderance of male births. Indeed, it must be confessed with regret that, throughout his book, he has indulged in speculations that are hardly warranted by adequate knowledge. He has failed, too, to give a full and exact description of facts, much of what he writes being vague and conjectural. Moreover, he is seduced, by a love of fine writing, into a style which is sometimes not grammar, is not always in good literary taste, and which with manifold words makes little understood.

More facts concerning the Todas and fewer comments concerning things in general we should have desired. But his object has been praiseworthy, though his opportunities of observation were evidently insufficient.

The Human Mind: a System of Mental Philosophy for the General Reader. By James G. Murphy, LL.D. Belfast: Mullan. 1873.

"The mind is the man; the body is only its tenement and instrument;" and the proper mode of investigating mind is, not to proceed from matter to mind, from physiology to psychology, but to go "directly to the mind itself, to ascertain the facts of consciousness, and arrange them under their

proper heads in a systematic form." These quotations declare the author's views of the nature of mental philosophy and of the proper method of its study. His treatise is intended for the general reader, or rather for the young of both sexes, and is therefore, he says, comparatively free from technicalities.

We know not the capacities of the young for mental philosophy, but we had not read many pages of Dr. Murphy's treatise before we began to doubt our capacity. One or two sentences like this we failed at first to understand at all. "The physical potences belong, not to matter itself, but to the principle of life in its diverse forms;" and it was only after referring to a note at the end of the book that we found that the author gave a special meaning to the word *physical;* using it, in fact, to designate the organic and to exclude the inorganic! The young of both sexes must, we fear, find this use of the word not a little confusing.

We had thought to have given an account of the author's views, but the task is beyond our power. To us it is simply a marvel that anyone could persuade himself that in such a treatise he was imparting knowledge to the general reader, or, we had almost said, imparting knowledge at all; and we feel not a little curious to know who will be the readers of it. However, as the faults may be in our intellectual capacity, and not in the treatise, it is only fair to allow the author to declare his own opinion of what he has accomplished or endeavoured to accomplish.

The writer has done his best to arrive at the real facts of the human mind, and to convey them in simple and intelligible language. He has also endeavoured to trace their mutual connection and reduce them to a system in harmony with itself, with the world around, and with the God above. It (the treatise) offers at the same time some amendments in the explication and arrangement of the functions of the mind. It suggests a somewhat different division of the mental faculties, and signalises intuition as a special function of the understanding. It attempts to rectify the distinction of matter and mind, of sensation and perception, of quality and relation. It endeavours to determine the function of consciousness, the proper meaning of idea, and the real division of the qualities of bodies. In the region of will it points out the place of emotion, and the character and function of conscience. It raises power, properly so called, to a primary place in the spirit, and assigns to it a separate discussion. For these results the writer's appeal is to the facts of consciousness. And he submits his work with all deference to the

consideration of the mental philosopher, as a somewhat nearer approach to the real character of the mind than that of Reid, the founder, or even Hamilton, the lucid and eloquent expositor and defender of the true system of mental philosophy.

Troisième Section des Recherches sur les Conditions Anthropologiques de la Production Scientifique et Esthétique. Par Théodore Wechniakoff. Paris: G. Masson. 1873.

It is not an easy matter to convey an exact idea of the aim and character of these researches. The author of the contribution before us, who is a Russian, distinguishes two leading mental types—the ideo-emotional or the *sensory-emotional*, and the intellectual or *anti-emotional*, and traces their influence in the character and the works of the men of different countries, who have been eminent in the arts, in the sciences, and in philosophy. First of all, however, he points out that there are two kinds or groups of scientific labours having distinctive characters. These are the group of *original labours* (*travaux primitifs d'Initiative*) and the group of labours of *elaboration* or *completion* (*travaux dérivés de Perfectionnement*). Now the work of those who have taken the initiative, or first broken ground, in a new line of thought, often remains for a long time unknown—unregarded by co-temporaries. When it is taken up by others after some time, after a period of prolonged and latent incubation, it is often done in such a way that the filiation between it and the new labours cannot be easily traced, especially as these are presented often as new and independent. We have used the author's style of expression, which, here as elsewhere, is somewhat laboured and involved. But the observation is just: an original idea is evolved by some thinker; it remains latent for years, no one appreciating its worth; then comes some one who appropriates it, expounds, illustrates, and verifies it, whereupon he is proclaimed, and probably ever afterwards takes rank, as its discoverer. Sometimes, however, the evolution of the original idea and its subsequent elaboration are accomplished by the same person: witness, says the author, the cases of Geoffroy St. Hilaire, Claude Bernard, Ch. Robin.

After this preliminary digression he proceeds to the consideration and illustration of the two great intellectual types,

the merit of first indicating which he assigns to Dr. Maudsley. We must say, however, that whoever was the author of the *travaux primitif d'Initiative* in this matter, all the merit of *travaux dérivés de perfectionnement* belongs unquestionably to M. Wechniakoff. As examples of the contrast of the two types of mind in the same department of science, he cites, in astronomy, the anti-emotional type of Tycho-Brahé, Laplace, Leverrier, as contrasted with the emotional type of Kepler, Zöllner, Thompson, W. de Fonvielle; in biology, the anti-emotional type of Cuvier, Valentin, Frerichs, Ludwig, Ranke, Marey, Schacht, as contrasted with the ideo-emotional type of Lamark, Blainville, Geoffroy St. Hilaire, Ch. Vogt, Mirbel, Broussais, Magendie, Virchow; in sociology, the anti-emotional type of Adam Smith, as contrasted with the ideo-emotional type of Turgot and St. Simon; in history, the anti-emotional type of Hume, Guizot, Mignet, Froude, as contrasted with the ideo-emotional type of Carlyle, Michelet, Macaulay, Augustin Thierry. It has somewhat surprised us to find Mr. Froude placed in the anti-emotional group of historians. For an elaborate analysis of the distinctive fundamental characters of the different types we must refer to the book itself. Indeed, we should despair of giving anything like an adequate summary of the author's views, and of the elaborate way in which he has expounded and illustrated them, under the conditions of space and time imposed upon us in this notice of his philosophical researches. We are afraid that he has systematised too much, and that his classifications of mental qualities do not fulfil the promise of their philosophical pretensions; but we have read with interest an elaborate comparative examination of the characters, as scientific investigators, of the two great Englishmen, Faraday and Graham. Among the leaders in science this country happily still holds its own.

The Convolutions of the Human Brain. By Alexander Ecker. Translated by John C. Galton, M.A. Oxon., M.R.C.S. Smith, Elder and Co. 1873.

This will be found a most useful little book, and the translator, who has done his work well, has been well advised in presenting it to English readers. It is a book which all

those who would have an accurate knowledge of the geography of the cerebral convolutions for the purposes of exact pathological observation, should not fail to obtain, and to read, mark, and inwardly digest. It will be a useful accompaniment to the pathological charts just issued by Dr. Howden and Dr. Batty Tuke, which every medical officer of an asylum should possess.

The Physical Basis of Mental Life. A popular Essay. By R. R. Noel. Longmans, Green, and Co. 1873.

A considerable part of this essay formed the subject-matter of a lecture delivered before the Literary and Philosophical Society of Leicester. The author, who has written a book in German entitled "Grundzüge der Phrenologie," has made a collection of casts of the heads of eminent men, criminals, suicides, and of national and other skulls, and in this essay he gives a popular exposition of the conclusions which he has arrived at from his observations and physiological studies. We must confess to a feeling of some disappointment after perusing his essay, for the title of it had led us to expect something more than an elucidation of the doctrines propounded by Gall. Not that the author commits himself to the details of the system which phrenologists advocate; for he points out what Gall really did by way of observation to reform the method of studying the brain as an organ of mind, and what an uncompromising hater he was of mere theorisers and systematisers; and he has himself given no little attention to the study of the anatomy and the physiology of the brain. It would not be correct, therefore, to describe him simply as a phrenologist, as that would imply that he was a more thorough supporter of the phrenological views with regard to the localisation of the mental faculties, than he really is; he should rather be described as one who was convinced that there is a considerable foundation of truth in the doctrines first promulgated by Gall, and subsequently developed by Spurzheim and Combe. But his opinions, as set forth in the essay, appear to be somewhat vague, unless it be that the popular form which it takes is answerable for the generality and seeming vagueness of them.

Life and Mind: Their Unity and Materiality. By Robert Lewins, M.D. 1873.

We shall allow the author, whose outspoken sincerity deserves all praise, whatever may be thought of his opinions, to speak in his own words, and our readers to make their own comments or criticisms:—

My present purpose is to attempt, in quite popular and intelligible language, divested of all technicality which is not familiar to all fairly educated persons, to ascertain the verdict of modern physiology and pathology on the real nature of life. Upon this physical basis, disregarding all metaphysical systems, from Plato to Comte, as so many *ignes fatui*, which have only served during thousands of years of misdirected activity to perplex and mislead the human mind, I propose to formulate, in a few sentences, a consistent and rational theory of human existence, in which everything super-natural and exceptional to familiar, every day observation and experience, is removed from the domain of sense and fact into that of fancy and fable.

I have chiefly at heart to bring to bear, in a purely scientific and judicial spirit, on the so-called inspiration and infallibility of our own Bible, one single, well-established physiological canon, *the non-existence of a vital or spiritual principle as an entity apart from the inherent energy of the material organism.*

This one fact alone, I am fully satisfied in my own mind, proves conclusively that all super-naturalism, alike "sacred and profane," is explicable by quite familiar phenomena of deranged cerebration and innervation, and that, as a corollary, the pretended "fundamental truths of Christianity" are palpable fallacies, ill-analysed and misinterpreted signs of disordered functions of the brain and cranial nerve-centres, of no more authority or claim to especial sanctity than analogous pretensions in the case of the Koran, or other extinct or extant idolatry. Mahomet, indeed, from being subject to epilepsy, must be considered by modern pathology as labouring, during his whole public career, which was much more extended than that of the Prophet of Nazareth, under actual organic brain disease, and the wide-spread religion of Islam may therefore be dismissed at once, as a purely medical question, from the serious notice of all who are not Pathologists. The Grecian Oracles, also reverenced by the most civilized nation of antiquity as superhuman utterances of Divine Wisdom, were merely the ravings of women temporarily insane from the inhalation of gases which disturbed, by poisoning the blood, their cerebral functions. Insanity and Idiocy, to this day, are still venerated in the native lands of Jesus and Mahomet as the manifestation of divine inspiration. Christianity will thus be found, when examined by the light of the 19th, to be simply what the impartial Greeks and Romans described it in the 1st century—a Syrian superstition. Syria, the "Holy Land" of the Bible and Koran (as if in sound philosophy any one place or thing can be holier than another)

seems in all ages—doubtless from geological and meteorological peculiarities—to have been notorious for the mysticism of its inhabitants; by which term I mean such excess of the idealising over the reflective faculties that sober reason and observation, the seeing things as they are in the open day-light of fact and nature, become quite disguised and obscured by the phantasmagoria of illusion. This radical defect, which necessitates the intellect to revolve perpetually in a vicious circle, fatal to all real progress, is characteristic of the human mind throughout all the East, as every impartial traveller perceives on a very cursory acquaintance. * * *

This radical principle of true knowledge, which the human mind has only reached after persevering for thousands of years in false methods, is the confidence, *based on fixed scientific data, and not merely on conjecture*, in the all-sufficiency of Matter to carry on its own operations, and the consequent absurdity, uselessness, non-necessity of any hypothesis which assumes, that from outside the sphere of sensible, material phenomena, there intrudes an immaterial, spiritual, or supernatural factor, to perform functions which Matter, by virtue of its own in-dwelling energy, really performs for and by itself. I confidently submit to the judgment of my readers the assertion that the whole hypothesis of Immaterialism, of an over-ruling of matter by "Spirit" (in the transcendental, not etymological sense of the word), the former the passive instrument, the latter the active agent, received its death-blow on the fall of the Cartesian, and establishment of the Newtonian, Philosophy. Our great English astronomer, by his discovery of universal gravitation, was the real founder, in Christian times, of scientific, common sense materialism, though, from prejudices of his own education in the scholastic methods of his age, he himself failed to carry out his own data to their legitimate conclusions in the domain of Biology. The tremendous revolution in European thought, at the close of the 17th century, can even yet be well appreciated by comparing the mystical idealism of Milton's "Paradise Lost" with the common sense realism of Pope's "Essay on Man." From the awe-struck manner in which the intellectual representative of Puritanism hails Light as too sacred even to be named, we recognise the fatal tendency of that primeval mysticism which renders free thought, free investigation, and real progress, an impossibility. There is no room for doubt, from his cosmological and psychological stand-point, that had Milton been aware of the prismatic experiments and cosmical demonstrations of Newton, he would have turned from them with abhorrence and proud contempt. To us, at all events, a century and a half later, it seems perfectly patent, whatever may have been the doubts and quibbles of Newton, Locke, and their learned and unlearned contemporaries, that as soon as it became a demonstrated fact that Matter was active, not passive, and that its every particle was in motion itself, and the cause of motion in every other particle—the belief in an energising

principle as a separate entity, apart and distinct from Matter itself, became an untenable fallacy. The whole fabric of Immaterialism, the idea of the necessity of supernatural influence in inorganic matter, was annihilated at once.

And the generalization cannot be restricted to "brute" matter, but is equally applicable to the organic kingdom of nature, to plants, animals, and man. Sensibility and voluntary motion (animal life), just as in the case of the self-acting cosmos, are not the outcome of a vital or senso-motor principle, spiritual or immaterial, animating, vivifying or vitalising the material organization; but just as in the simpler, though not less wonderful, (for in an infinite scale there are no absolute degrees) case of inanimate matter, animal vitality or conscious existence, with all its marvellous and complicated processes of body and mind, is merely the active expression of the material machinery of the microcosm. In this microcosm special anatomical structures or tissues manifest special functions, one of them being consciousness—egoistic and altruistic—of which mentation or cerebration is only a mode. Thought and Moral Feeling are thus only localised sensation, the special life of the hemispheres of the brain, organs familiarly known to be exceptionally developed in the human, as compared with all other animals. Modern physiology, just as in the case of modern physics, has been compelled entirely to discard the Oriental, classical, mediæval, metaphysical, ante-Newtonian speculation that organic function has for its factor a spiritual or immaterial entity or soul. The question of the *anima mundi* and *anima humana* (using the term in the sense of soul) is at bottom one and the same. The speculation, explicable and excusable even so late as the prevalence of the Cartesian system, while the erroneous idea of the inertness of matter vitiated Philosophy, had no longer a *locus standi* after its refutation by Newton. If Matter acts by means of its own *vis insita*, and depends on no extraneous "*influx*," or impulse, the whole problem of Immaterialism and Materialism is solved in favour of the latter. No modern physiologist has any difficulty in realising what seemed so insuperable a stumbling block to the Ancients and Locke—that sensation and thought are due to matter (nerve substance). The whole difficulty seems to us purely imaginary, depending on preconceived fancies as to the twofold existence of spirit and matter in the universe, and the inferiority of the latter to the former—ideas of no greater value than the old prejudice of mathematicians as to the "perfection" of the circle, so mischievous in astronomical discovery—or the fanciful notion of peculiar sanctity attached to the numbers 3 and 7. We know nerves feel or sensate. We know equally well, both from physiology and pathology, that a special portion of the nervous system (the hemispheres of the brain) thinks. From the medical or natural stand-point, the metaphysical notion that man is a dual being, compounded of soul and body, is in reality only the last lingering relic of the vicious, obsolete School-Physiology—the parent of occult therapeutical practice in the middle ages, and familiar in medical

literature as the system of Van Helmont, a Flemish physician, who died about the time of Sir Isaac Newton's birth. This system was based on the fallacy of the essential passivity of matter, and presupposed that in every organ of the body there is an Archeus, a ruling spirit, an Eu-demon in health, a kako-demon in disease—the active agent in function, whose sole *raison d'être* is the presumed incapacity of matter, "living or dead," to exhibit, *proprio motu*, energy of *any* kind. This theory, identical with that of Divine and Demoniac possession in the Bible, which is quite incompatible with rational, theoretical and practical Physic, has long since fallen even into popular contempt as regards every other organ or series of organs in the body, except the Sensorium. * * * *

The bearing of this unity, and not duality of nature in man on what are called the "fundamental truths of Divine Revelation," must be apparent at a glance. What has been mistaken for supernatural interference resolves itself into Hyperæsthesia or Anæsthesia, dependent on increased or diminished nervous and cerebral action. It is quite unnecessary, from the physiological vantage ground, to allude seriously to the portents, miracles, prophecies, &c., claimed by mystagogues, successful or unsuccessful, which sanction their pretensions, as exceptionally privileged beings, to dictate authoritatively to their fellow creatures the behests of Heaven, from Moses to Pius IX., and the author of the Book of Mormon. All such must be uncompromisingly negatived by science in the 19th century as impostures—conscious or unconscious—the promulgator of an untruth not being, of course, less an impostor from being his own first dupe, even though he be the victim of circumstances beyond his own direct control.

It were an impertinence in the present state of physiology and physics to argue in refutation of the incredible assertion that human beings can arrest the motions of sun and moon, change water into wine, lay the winds and waves by a word, cure old standing or congenital organic disease or deformity instantaneously by a touch, by the invocation of any name under Heaven, or in any other way alter or suspend the regular order of the universe by means corresponding with the idea of a miracle in theology. When we eliminate from matter the vital principle we nullify entirely the venerable hypothesis of Divine or diabolic inspiration and possession, and give scientific sanction to the Sadducean doctrine that all reported visions of angels and spirits, good or evil, are spectral appearances—symptoms of disturbed bodily function of organs within the skull, "coinages of the brain, bodiless creations," like the apparition in Hamlet and the apparitions everywhere else. Such assumed supernatural visitations as the "descent of the Holy Ghost" at Pentecost, and the conversion of Paul, to whom, and not directly to Jesus Christ or any of his immediate companions and disciples, Protestantism is chiefly indebted for its Evangelical doctrines, on his journey to Damascus—phenomena lying at the very root of the alleged Divine origin of Christianity—belong to the very alphabet of medical science, and may be confidently

diagnosed as not preternatural occurrences at all, but merely symptoms of over-excitement—the result either of Anæmia or Hyperæmia—of the nervous centres in the head. "The sound of Heaven as of a rushing, mighty wind, the cloven tongues of fire," are symptoms familiar to every clinical tyro of morbid action in the encephalic sensory ganglia connected with the auditory and optic nerves, and are, indeed, only exaggerations of that "singing in the ears" and "floating of motes" before the eyes, which every one who reads this must have himself experienced from the most trifling derangement, centric or eccentric, of the circulation of the blood within the brain, or from over-tension of the brain, eye, or ear nerve-tissue itself. The exaltation of the faculty of speech—a parallel case to which is well known as the Irvingite epidemic of "Unknown tongues"—is also the external sign of excited function at the origin in the brain of another cranial nerve, the lingual or motor nerve of the tongue. The mental tumult, panic, and metamorphosis of ideas, feelings, and character, are all quite ordinary symptoms consequent on the participation of the cerebral hemispheres—seat of the moral feelings, ideas and character—in the excited condition of the sensory ganglia. Identical symptoms, affecting both the organs of sense and the mental and moral faculties, are now quite familiar to us as exhibited by fanatics in "camp meetings," and religious revivals, not uncommon since Whitfield and Wesley's time, in Great Britain, North America, and Protestant Ireland. All such occurrences, whether they happened 1800 years ago in Palestine, or yesterday at our own doors, have no connection whatever with supra-mundane agency, but are simply the usual, constantly recurring, every-day indications of abnormal states of the sensorium.

The conversion of Paul falls under the same category, and resolves itself into an apoplectiform attack of the nature of sun-stroke with temporary amaurosis—a very common sequel to protracted cerebral tension and excitement; the probable proximate cause of the paroxysm, the active symptoms of which only lasted three days, though, as often happens in illness of this character, it revolutionised the whole future life of the sufferer, being exposure to the noon-day blaze of an Eastern sun. Such instances of mistaken diagnosis merit as little notice, other than professional, from contemporary medicine, as do the tales of witchcraft in former ages, or the shameful spiritualistic delusions of to-day. All such supposed evidences of supernatural power are merely indications of natural bodily *infirmity*. * * * *

The following twelve theses—partly taken from the German—summarise the chief points contended for in this paper:—

1st. The genuine disciple of Nature and Life, which are one and indivisible, takes nothing on trust, but only believes what is known with positive certainty—that is, *on data* which can be universally verified.

2nd. Doubt is not, as Fiction pretends, the herald of dismay and despair, but the necessary preliminary of all order and progress; as without it there cannot be any inquiry, clear insight, or settled convictions whatever.

3rd. Natural Science is bound in conscience to divulge *all* her results, however much they may conflict with contemporary prejudices, in order to satisfy the human mind and leave it free for the further pursuit and enjoyment of truth. Mental Reservation and Prevarication, as habitually practised by contemporary English thinkers and savans, is disloyalty to humanity and reason; dangerous alike to their country, and to the cause of civilisation throughout the world.

4th. Natural Philosophy in recent times has rendered trite the axiom, that everything in the Universe proceeds by unalterable law.

5th. The sum total of Natural Law constitutes the system of the world (axiomatic truths of logic and mathematics).

6th. The world is from eternity to eternity. Nothing is ever created, nothing lost. Beginning or ending there is alike none. Only the form and condition of things is perishable. Everything that exists dates from eternity.

7th. The Universe is boundless in space and time. The divisibility of matter is infinite. The Universe *can* have no limits, eternity in time and immensity in space being correlative.

8th. As the logical inference from the above, millions and millions of millennia are before us, in which new worlds and systems of worlds shall flourish and decay; at their lapse the Universe *can* be no nearer its dissolution than at the present or any former period.

9th. Cosmical space is not a vacuum. Our atmosphere has no limits. The first living being had its germ in eternity, which is equivalent to negativing Creation altogether. The present human being is only a link in an endless series—the goal of a past—the starting-point of a future developmental form in the Animal Kingdom.

10th. The so-called "Personal God" is merely an idol of the human brain—a pseudo-organism of pre-scientific man endowed with man's attributes and passions, a remnant of Fetichism. Jehovah, Jove, or the "Lord and Father" of the New Testament, are alike anthropomorphic inventions. Absolute Atheism is, however, no postulate of Science, which does not venture to impugn the evidence of Cosmical Design, or the existence of an unknown, inconceivable, intelligent First Cause, of whose Eternal Mind the Eternal Universe may be a hypostasis. Some such belief is, indeed, a necessity during the earlier stages of our life, while, even in the soundest intellect, imagination is dominant over judgment.

11th. The further development of our race in intellect and moral feeling depends chiefly on education—the disuse of *à priori*, intuitive methods, and the systematic practice of rational habits of thought based on actual experience. At bottom this is equivalent to saying, superior enlightenment depends on proper exercise, in every possible direction, of the cerebral hemispheres.

12th. No satisfactory progress in virtue or happiness can be hoped for till the present supernatural theory of existence is overthrown, and the docile study of the great Book of Nature and Life, with its invariable sequences of cause and effect, supersedes the arbitrary anarchic authority of falsely called "Divine Revelation."

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Insanity in Ireland in* 1872.

The Irish Blue Book for 1872—the twenty-second Report of the Inspectors and Commissioners of Control of Asylums for the Insane in Ireland—did not appear in time to be reviewed in our issue for last October along with the Reports (for the same period) of the English and Scotch Commissioners. We now, however, take the first opportunity of noticing its contents, and only regret that our space is too limited to enable us to do them justice. The report is a most interesting one, and the appendices, which are very full and complete, bear evidence of the bestowal of much labour on their compilation.

We may preface our remarks by stating that the total number of persons known to be of unsound mind in the United Kingdom was 86,322 at the beginning of last year. They were distributed as follows:—

In England	60,296
In Scotland	7,849
In Ireland	18,177

England was the only division in which there was any marked change in the numbers from those at the commencement of the year. The small increase in Scotland was more than counterbalanced by the falling off in Ireland, the numbers on 1st January, 1873, having been respectively 58,810 in England, 7,729 in Scotland, and 18,327 in Ireland. The decrease in Ireland has been entirely among the "Unregistered" insane. Those under official cognizance increased in numbers during the year from 10,767 to 10,958. These latter were distributed as follows:—

In the 22 District Asylums . .	7,140	
In Dundrum "Criminal" Asylum .	175	
Supported by Government in the Registered Hospital at Lucan .	30	
		7,345
In 18 Private Asylums . . .	350	
In 3 Registered Hospitals . . .	297	
		647
Total in the 44 Public and Private Asylums		7,922
Total in Union Workhouses . .		2,966
Gross Total . .		10,958

The population of Ireland, which was close on 5,790,000 in 1861, had fallen down to nearly 5,400,000 in 1871. In the sixteen District Asylums (which correspond to our English County Asylums) the

average numbers resident during 1862 were 4,426. In 1872 they had risen to 7,107, inhabiting twenty-two asylums. Alluding to this want of correspondence between the decreasing general population and the increasing insane population—the total number of the latter (including those in every class of asylums) amounting at the beginning of last year to 7,851 against 5,257 at the commencement of 1863—the Inspectors make the following remarks:—

> Notwithstanding the continued drain of the population by emigration to the United States of America and elsewhere, so far from the numbers of insane being on the decline, as might naturally be expected, they would seem, on the contrary, to be decidedly on the increase . . . . With a numerical diminution of the active, intelligent, and energetic portion of the masses of society, the mentally affected who have been left at home appear, relatively speaking, to increase in proportion to the extent of emigration. Taking the last twenty years, our numbers have probably fallen two millions, principally out of the rural population, at the same time that the insane have remained at home. Hence, making allowance for incidental cases of lunacy which spring up in the human family from time to time, there is now quite as large, if not a larger, aggregate of insanity among a population of perhaps little more than five millions than there was in 1854, when the population was over six millions.

We are reminded by the inspectors that in estimating the value of statistics for the decision of the moot point as to the *increase of insanity*, two matters should be taken into consideration, viz., 1st,—The greater *longevity* observable now than formerly among those affected with mental diseases, due to the improved methods of treatment, and the "quietude of asylum life" as contrasted with the life too often led in former days by the wretched imbecile, "tied down and secreted in back places" in almost every village in the country. 2nd,—The greater readiness with which now-a-days people place their insane friends under treatment *instead of concealing* them as formerly. This, they say, is due to all classes of society now looking upon insanity as a disease equally curable with others to which flesh is heir, and its being a recognised fact that those who recover from mental affections "return to society with, if possible, increased faculties (*sic*) and memories altogether unimpaired." We cannot stop to discuss here the novel doctrine propounded in this last extract (taken from p. 25 of the Report). We, therefore, pass on to another subject referred to by the Inspectors—

Separation of Incurable (or more properly Chronic) from Curable Cases.—The Inspectors have long advocated the establishment in Ireland of institutions somewhat akin to our Metropolitan District Asylums at Leavesden and Caterham. Their views remain unchanged, as will be seen by the following observations:—

> The insane poor, instead of being placed with reference to two distinct classes, are at present, all alike, located in the same institutions; idiots, the hopelessly demented, the incurable, and epileptics constituting a large per-centage of inmates in establishments more properly intended for curable and acute cases. A double disadvantage arises herefrom:—(1) The asylums are overcrowded, and (2) a heavier expenditure is incurred without proportional benefits—an expenditure, too, which is progressively advancing.

Besides the 7,140 patients already referred to as tenanting district asylums, there are in union workhouses no less than 2,966 mentally affected.

The cost of maintenance of lunatics in asylums may be set down, one year with another, at £23; that of the pauper insane in unions at £11. In England, but particularly in London and the Metropolitan counties, a similar state of things existed, which, within the last few years, has been materially obviated by the erection of intermediate institutions between asylums and union workhouses, into which a large percentage of hopeless cases find admission; at the same time, however, though with a less expensive staff, and an organisation not so complex in detail, the wants and comforts, as well as the moral and physical treatment of the inmates, are peculiarly attended to in a manner which would totally disassociate them from the same category as the ordinary poor in union workhouses. Indeed, so far back as the year 1858, we, in our report for that year, advocated the establishment of a system which is now in efficient working order in the sister country, as the following extract from that report will make manifest:—"Taking a broad view of lunatic accommodation, it is obvious, for many reasons, that the most suitable place for *every* demented person, lunatic or idiot, harmless or otherwise, is an institution specially devoted to the care of the insane, under the superintendence and management of experienced officers and attendants, who are practically acquainted with the treatment of mental disease in every form, and directed and controlled by that department of the public service to which the supervision of all matters relating to such establishments properly belongs; and we regard the question as deserving the consideration of the executive—namely, whether the time may not have arrived for making provision for the complete separation of the insane poor of *every class* from the sane portion of the community, which, whilst effecting a moral duty towards the latter, would insure for the insane poor, idiotic, or imbecile, more care and comfort than they can possibly have in ordinary workhouses. We feel that objection to a change may be advanced on financial grounds, and that it may be argued, considering the extremely low position some, particularly the idiotic, occupy in the human family, both socially and mentally, that they are comfortably circumstanced and sufficiently well cared for at present. Another and most desirable object would be obtained by this measure. All the chronic and incurable cases which have been for many years accumulating and at present take up a great deal of valuable room in the several district asylums (that could otherwise be more beneficially devoted to recent and acute cases) might be removed to these auxiliary buildings, by which means a twofold advantage would be gained, viz., the provision of proper accommodation for the class in question, and the disembarrassment of the present houses from all but those suffering from recent and acute affections, or those whose malady afforded reasonable hope of an ultimate recovery, thus leaving them free to exercise their proper and legitimate functions of *hospitals for the cure* of insanity, instead of being mere receptacles for the safe keeping and maintenance of chronic cases." The advocacy of the system expressed in the preceding extracts was first undertaken in our Eighth Report, but as the question of inadequate accommodation grew to be one of more pressing importance from month to month, we adverted to it again. In view of the much enlarged accommodation and the great numerical increase in insanity, which in the intervening 16 years has been developed, we are now enabled to see the more fully that the course then suggested was the soundest and most judicious we could have recommended.

The new cases admitted during the year into the District Asylums numbered 1,787; the relapsed cases 378. Of the total number of admissions, 2,165, no less than 1,119 were sent under *police* escort, and thus treated as if criminals. The law unfortunately sanctions this method of procedure; but if we are to deal out even-handed "justice to Ireland," the act should be repealed at once, and the mentally

afflicted in the Sister Isle treated no worse than their brethren in misfortune on this side of the channel. We never could understand why the Relieving Officer should not have the same duties to perform in regard to the insane poor in Ireland as he has in England. We have the same complaint to make about the class of patients too often sent to public asylums in England which is made by the Irish Inspectors when they protest against magistrates ordering to be sent to District Asylums, "the bedridden, aged and infirm, nay even children when troublesome, noisy, and difficult of control, or idiotic." Humanity, however, has not been so far forgotten in England as to give ground for complaint about the manner in which our patients are (in most cases at least) handed over to our care. They are never given up to us as if culprits! The Irish nationalist M.P. has in this matter a good subject for the exercise of his energies when dilating on the "wrongs of Ireland" during the approaching session. It appears that this return to barbarism is sanctioned by the statute generally known as "Lord Mayo's Act." This is the statute to which we drew attention on a former occasion,* as the one compelling so unjustly medical men to give certificates of insanity without any fee. We would now again urge most strongly its repeal, and thus remove the disgrace to our code of having embodied in it an Act which empowers two magistrates to "commit" a person of unsound mind to a District Asylum as a "dangerous lunatic," although, to use the words in the blue book, "in a state of extreme physical exhaustion or actually dying." No wonder the Inspectors, after a five years' experience of the working of the present system, speak so strongly in its condemnation, particularly when it is known to them that these magistrates' "warrants" have frequently been actually "signed without the justices having had any personal knowledge of, *or even inspected* the parties committed, who thus become fixtures on the public rates, and —what is still worse—occupying room that could be so much better reserved for curable, violent, and urgent cases." The allusion to the "fixtures on the public rates" is due to the fact that, under the present system, there is no legal power of discharge, after recovery, of a patient "committed" by the magistrates. Once in a District Asylum as a "dangerous lunatic" always there, unless your friends *choose* to remove you! The Board of Guardians are under no obligation to remove such an unfortunate! No one! This has naturally resulted in the overcrowding of the district asylums in Ireland to such an extent, and so quickly, that in some of them extra provision has become necessary to meet pressing requirements. The Inspectors conclude as follows their justly severe and well-timed remarks on the "indiscriminate use" of the powers given by "Lord Mayo's Act" (30th and 31st Vict., c. 118):—

This facile method of procuring admission into district asylums has almost superseded the normal and legitimate one exercised with such deliberation and

* Vol. xiii., p. 562.

discrimination for so many years by Boards of Governors and Medical Superintendents who, under that system, were enabled to keep a watch with a view to the exclusion of unsuitable cases, while a full discretion was given them in deciding as to what might be considered cases fairly eligible for asylum relief. One thing is clear, that magistrates have not hesitated to employ the Act in disembarrassing their respective localities of characters whose troublesome proclivities afforded some colour or pretext of insanity.

The Inspectors seem to overlook the fact that establishments similar to our "Registered Hospitals" form a separate class in themselves. Accordingly we cannot give the number of admissions into them during the year. We know, from the Blue-Book for 1871, that there are in Ireland four such institutions, of which St. Patrick's, commonly called "Swift's" Hospital, is the oldest and best known. It is obviously incorrect to speak of these as "Private Licensed Houses." The latter term should be confined to strictly "proprietary" establishments. We hope to find the error rectified in their next report by the separation of Appendix E into two portions, for the tables in it, as at present given, cannot be made available satisfactorily for comparison.

The recoveries in the district asylums amounted to 1,068. They compare favourably with those in English and Scotch similar establishments. The per centage on admissions was 49·3 in Ireland, 43·6 in England, and 42·6 in Scotland. The Inspectors appear anxious to check premature discharges which swell the number of admissions of "Relapsed Cases." Accordingly they publish the totals for each asylum of those re-admitted after having been discharged as "recovered." But there is an obvious error in the figures relating to this subject given at pages 103—5. Table xiv gives 378 as the total number of relapsed cases admitted, whereas the sum of the numbers given in Tables xv and xvi represents a total of 381. The former total should really be larger than the latter instead of smaller; for it is supposed to include *all* the relapsed cases, whereas the latter is only made up of those entered as "recovered" on their previous discharge. We find that in 234 of these cases discharge and readmission both took place within a twelvemonth. The Inspectors think it would be more correct to calculate the per centage of recoveries on the total number under treatment during the year than on the admissions.

The deaths in the District Asylums numbered 638, including ten from "accident, violence, or suicide." So, at least, the numbers are given at page 109. If, however, we turn to Appendix C, table 2, we find that there were only *four* from "Accidental Causes," one having occurred in each of the following asylums, viz., Castlebar, Ennis, Letterkenny, and Omagh. In this table all the 49 deaths in the Cork Asylum are attributed to "Natural Causes," whereas at page 109 we find six of them recorded under the heading "Accident, Violence, or Suicide," the remaining 43 being ascribed as follows:—6 to "Abdominal Affections," 9 to "Cerebral and Cerebro-Spinal Affections,"

9 to "Thoracic Affections," 4 to "Diseases of Heart and Arteries," and 15 to "Debility and old Age." The Inspectors classify all causes of death under seven headings. Six of them are given above. "Fever and other Diseases" constitute the seventh group. Deaths from suicide and violence having attracted much attention in England of late, we would welcome reliable statistics on the subject from the sister isle. We, therefore, regret much the want of correspondence between the figures given at pages 89 and 109 of the Blue Book. The report of the Cork Asylum itself does not help us to decide between them; for we find one line in the "Cause of Death" table in it running thus:—"Accident, Violence, or Suicide, Voluntary Abstinence, and Nervous Decay, 3 males, 3 females—total, 6." This is certainly a novel sort of classification. The rate of mortality calculated on the average numbers resident was 8·98 per cent. This compares favourably with the rate in English public asylums, 9·6, and is but little over the Scotch rate, which was 8½ per cent. The Inspectors calculate the per centage according to the old method, which has lately been advocated as the better one in our journal, namely, on the total number under treatment during the year. The percentages of deaths would in that case stand thus:—England, 7·53; Ireland, 6·97; Scotland, 6·35. In judging of the value for comparison of these figures, it must be borne in mind how much larger the proportion of paying patients is in Scotch public asylums than in those of either England or Ireland. How this affects the rate of mortality will be evident if we remember how glad, as a rule, the friends of private patients are to remove them when it is known they are near their end, and how difficult it often is to discover a single relative of a patient who has been supported by the rates. The following figures show how great was the disproportion referred to during the year under review:—

	Remaining 1st January, 1873.	
	Non-paying Patients.	Paying Patients.
In English County and Borough Asylums	30,094	379
In Irish District Asylums	7,140	165
In Scotch Royal and District Asylums.....	3,687	973

The "paying patients" were distributed among twenty out of the twenty-two district asylums, the numbers varying in each from 25 in the Limerick to one in the Carlow Asylum. The average contribution of each such patient towards maintenance was within a fraction of 5s. 2d. per week. The highest average charge in any asylum was 8s. 9½d, the lowest was 4s. 2½d. per week. There is no fixed rate at

which "private patients," as we call them, are received into Irish district asylums further than that any contribution may be received provided it does not exceed the average of the general cost during the preceding year in the particular asylum, nor be less than half such cost. In special cases the Inspectors have power to sanction a still lower rate, which must, however, be in no case less than one-fourth of the general cost.

Included in the expenditure of Irish district asylums is an item never charged in England to the maintenance account. We allude to the item for repairs and alterations. Deducting it and the receipts for "articles, goods, and produce sold," we are able to institute a fair comparison between the expenditure for maintenance in the public asylums of both countries. Thus we find that the weekly cost per head was 8s. $9\frac{1}{25}$d. in Ireland, and 9s. 8d. in England. It was only 8s. $5\frac{2}{10}$d. in Ireland the previous year. This advance in cost the Inspectors say has been due principally to "the exceptional rise in nearly all the articles of regular consumption" during 1872, "but especially to the enormous price of coal."

They advocate very strongly paying officers and attendants better than has been the case hitherto. They give, in one of their excellent appendices, a table showing the scale of wages and allowances for servants and attendants in each asylum separately. From this we learn that the highest wages given in Ireland to any head male attendant do not exceed £40, with clothing &c., and, in this case, the officer referred to performs also the duties of bandmaster. In the King and Queen's County Asylum, at Maryborough, there are eight male attendants receiving only £10 a-year, with clothing, &c.! It is to be hoped the committee of the asylum referred to will see the true wisdom and common justice of the following excellent and much to be commended remarks of the Inspectors:—

> It is false economy to deny a fair scale of wages to those who have to fulfil the necessary responsibility of watching over the insane at all hours, and are exposed to severe animadversion for the slightest neglect of duty . . . . Subordinate officers and attendants have as a body been underpaid; so much so that many of them have resigned from time to time for the purpose of leaving the country (just, too, at the moment when they became valuable from their experience), certain of being similarly engaged, and much better remunerated, in America or elsewhere. *This constant change of domestics* in asylums proves highly unsatisfactory, but particularly so with reference to the patients themselves, who are unsettled by it, and, in a curative point of view, injuriously affected by being placed under the care of crude and uneducated warders.

The Inspectors in several parts of their report refer, in terms of the highest commendation, to the way in which their duties, varied and onerous as they are, have been performed by the Medical Superintendents. To us in England it seems strange to read of a medical superintendent being held responsible for the correctness of all the accounts and the entire fiscal department of his asylum. It appears, too, that he has not only to see that all moneys are duly received and

paid, and to account for the same monthly to his Committee of Visitors, but has also to furnish an abstract regularly to the Inspectors, to be by them submitted to the scrutiny of a public auditor sent down by Government to compare the fiscal statement with receipts, the "Want-book," &c. All this must necessarily involve a great amount of clerical labour calculated to weaken considerably energies which ought to be devoted to professional work. And yet—although so much work is thrown upon them—there are eighteen Superintendents in Ireland without an Assistant Medical Officer, as is shown by the Table at page 115 of the Report under review! One of these eighteen—Omagh—had a daily average number of patients amounting to 444. Another, Limerick, had 420 daily resident. The average of all comes to within a fraction of 270. Knowing all this, we cease to wonder at the fact brought out by Dr. Campbell, of Carlisle,* that only one solitary asylum in Ireland contributed to our medical statistics by the adoption of the Medico-Psychological Association's Tables in the annual report of the medical superintendent. There is another aspect of this question which it would be well to bring under the notice of the Boards of Governors of these eighteen asylums. They are undertaking the gravest responsibility in allowing their institutions to remain even for the shortest period without the actual presence of a medical officer. But this must frequently be the case for *many hours* at a time—as for instance when the medical superintendent is from home on his annual leave. During it the "Visiting and Consulting Physician" (an official entirely unknown to us in England, or in Scotland either), if he be very zealous and is not in large general practice, may spend perhaps two hours of each day in the asylum. During the remaining twenty-two the institution must "take its chance!" These Boards are aware, we presume, that if they do not see the necessity of putting an end themselves to such a "happy-go-lucky" system, it will probably be terminated—and the sooner the better—by the Lord Lieutenant exercising the absolute power given him by the fifth section of Lord Mayo's Act (30 and 31 Vict., c. 118)—a power which has been already exercised, we shall not say arbitrarily, but certainly very authoritatively, in the case of Chaplains, whom the Belfast Board, on principle, refused to appoint. The Inspectors themselves are not entirely free from responsibility in this matter, and we hope they will not shrink from their obvious duty as suggested by the section of the Act referred to. The scientific world looks to them (as being members of the medical profession) to take the lead in whatever may tend to the cultivation of the wide, but waste, field of psychological inquiry in Irish asylums. And here it occurs to mention that there is one very palpable deficiency in the establishments for the insane in the sister country—for which, however, the resident physicians can in no wise be held accountable—namely, with respect to

* *Vide* "Journal of Mental Science" for April, 1873, vol. xix., p. 68.

post mortem examinations. These, in the absence of an assistant, it would be both unreasonable and out of the question to expect a medical superintendent to conduct—single-handed, over-worked and over-burdened, as he already is, with such a multiplicity of responsible duties. On every account, therefore, the Inspectors should be "up and doing" in this matter of the Assistant Medical Officers, and thus aid the Irish resident physicians to remove the reproach that they "sink science in economics, and lose their characters as physicians—or healers of disease—in their functions as house stewards and account keepers."

The Inspectors not only give their meed of praise to the medical superintendents but they also recommend an "improved modification" of the scale of salaries fixed by the Privy Council Rules of 1870. This scale we have tabulated below, giving in the last two columns the salaries, &c., to which the several medical superintendents are entitled, even though some of them may be continuing from choice under the old system:—

Class.	Accommodation.	Asylums comprised in each Class.		Medical Superintendent's	
		Names.	Total Number.	Annual Salary.	Allowances.
I.	800 and upwards	Richmond	1	£600	The same for all, namely:—Unfurnished apartments; fuel; light; washing; vegetables; bread and milk.
II.	600 and under 800.....	Cork	1	£550	
III.	500 „ „ 600.....	Omagh	1	£500	
IV.	350 „ „ 500...	Ballinasloe ... Limerick ..... Belfast ..... Mullingar..... Clonmel	5	£450	
V.	250 „ „ 350...	Monaghan ... Sligo ..... Downpatrick Letterkenny Enniscorthy... Ennis ..... Maryborough Castlebar	8	£400	
VI.	Under 250	Killarney ..... Londonderry Waterford ... Kilkenny ..... Carlow ..... Armagh	6	£340	

It will be seen from the above that only three out of the twenty-two Medical Superintendents of district asylums get what Lord Shaftesbury says should be the minimum salary. This opinion, moreover, was given fifteen years ago when the cost of almost everything in common use was 20 per cent. less than now. The Chairman of

the English Lunacy Commissioners in his evidence before a Select Committee of the House of Commons thus expressed himself, in March, 1859:*—

> I cannot think that any superintendent ought to receive much less than from £500 to £600 a-year, besides a house and allowances. * * * * To the greater number of the medical superintendents very much larger salaries should be given, and unless you do that you cannot possibly secure the very best service. * * * * The great object must be to raise the *status* and character of the superintendents to the highest possible point.

The nineteen superintendents in Ireland who get less than Lord Shaftesbury's recommended minimum cannot even look forward to an increase in their salaries after any number of years' service. If they commence at £340 a-year, at that pittance must they remain, even though they devote fifty years to the service! If a Board of Governors desired to show their appreciation of a number of years' faithful devotion to duty, and asked the Lord Lieutenant to sanction an increase of salary, His Excellency would be obliged to refuse as having no authority to do so under the present Privy Council Regulations. With a view to the modification of these in regard to this point the Inspectors make the following suggestion:—

> When an officer attached to a smaller asylum for a series of eight or more years—whose professional capabilities must be fully equal to those at the head of the most extensive institutions of a similar kind—has efficiently and sedulously discharged the various obligations imposed on him, there should be a sort of *good service increase of pay* authorised on satisfactory grounds, and by a resolution of the Board of Governors addressed to the Executive.

This excellent suggestion supports the recommendation of the Royal Commissioners, who wrote thus in 1858:—

> The salary of the resident physician should be such as will secure the services of a competent medical officer, and we think it but just that it should increase with length of service, so that those who fill the situation may not be shut out from all prospect of bettering their condition.†

The superintendents of the nineteen smaller asylums may, it is true, look forward to a chance of getting promoted when a vacancy occurs in one of the other three; but such promotion involves the loss of all previous service in reckoning time for superannuation. In Ireland this is a serious matter, for there a medical superintendent requires to have served *forty* years before he can get a pension equal to two-thirds of his salary and allowances. An English or Scotch superintendent can get the same proportion after *fifteen* years. This is certainly not "justice to Ireland." The Irish medical superintendents hold their appointments direct from the Crown. Their salaries and retiring allowances ought, therefore, to be paid directly out

* See "Report from the Select Committee on Lunatics," ordered by the House of Commons to be printed 11th April, 1859.

† See "Report of the Commissioners of Inquiry into the State of the Lunatic Asylums in Ireland," p. 11.

of the Consolidated Fund. Two good results would follow this change. 1st. The patron becoming also the paymaster, the principles of the British Constitution would be more strictly adhered to than at present. 2nd. In the case of a man whose service as a medical superintendent has been commenced in one district asylum and completed in another, there would be no difficulty about getting the first period reckoned for the purposes of the Superannuation Act. As the law stands at present all such previous service would count for nothing, the wording of the Act being—"Any officer whose whole time has been devoted to the service of *such* asylum."

We are sorry to find the Inspectors obliged to make the following remark:—

> We are much below what is noticeable in English hospitals for the insane with regard to means of recreation and indoor diversions—music, games, illustrated periodicals, and the like. Conversant from experience with the great advantages, in a professional point of view, derivable from such pastimes in the treatment of mental affections, our efforts shall always be directed to their future development.

The Inspectors, alluding to the great number—no less than 7,219—of insane persons "at large" in Ireland, draw attention to the probability of their transmitting to posterity the disease they labour under, and thus contributing to the perpetuation of one of the most terrible scourges of the human race.

If space permitted, we should be glad to quote extracts from the excellent remarks the Inspectors make on "Insanity in Criminals" and "Malingering."

But we must conclude by merely recommending a perusal of them to our readers, who will find in this and every other part of the report evidence of the care with which it has been prepared and of the breadth of view of its authors.

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2. *French Retrospect.*

By T. W. McDowall, M.D., Assistant Medical Officer, West Riding Asylum, Wakefield.

(Annales Médico-Psychologiques September, 1872, to January, 1873.)

Influence of the Events of 1870-71 *upon the Development of Mental Disease in France.*

In a very long communication, Dr. L. Lunier attempts to answer the questions; 1st: Do great political and social commotions determine the occurrence of a certain number of cases of insanity? 2nd: Do these tumults increase the number of lunatics? To obtain information for a satisfactory answer to these questions, he has not limited himself to Paris and the department of the Seine, but has made enquiry in all the Asylums of France.

To make the results the more striking, Dr. Lunier has arranged the 89 French departments into four groups, according to their geographical position, and the events which occurred in them from 1st July, 1870, up to the end of 1871.

The first group contains the departments still occupied by the Germans, and those evacuated since 1st April, 1871.

In the second group are collected the nine departments which were occupied only towards the end of 1870, and were evacuated in March, 1871.

The third group includes the 11 departments bordering upon the invaded region.

In the fourth group are the 48 departments which only indirectly and at a distance experienced the influence of the events of 1870-71.

There are 14 asylums in the first group of departments. Into these, during the year preceding the war, from 1st July, 1869, to July, 1870, 2,202 patients were admitted; but the number fell to 1,533 in 1870-71. Of 809 men admitted during the second period, 146, that is 18·05 per cent., became insane in consequence of the war. The proportion among the women was 12·77 per cent.

During 1869-70, the admissions into the asylums situate in the second group of departments were 866; in the following year they fell to 783. Of the latter number 440 were men, and of these 21 per cent. had their mental derangement attributed to the events of the war. Among the women the per centage was 15·45.

In the third group, which includes Paris, no change occurred in the number of admissions. It must be remembered that for a considerable period Paris was in a state of siege, and for four-and-half months only patients from the city and outskirts passed through the Bureau d'Admission at St. Anne. Here the admissions were 2,982 from 1st July, 1869, to 1st July, 1870; but the number fell to 2,599 during the following year.

In the fourth group of departments, 48 in number, the admissions fell from 4,141, 1869-70, to 3,862 in the following year. In about nine per cent. of the male, and 5·33 per cent. of the female admissions the mental disease could be attributed to the influence of the war.

(As this paper is of extreme length and not yet finished, we delay any further epitome until M. Lunier completes his communication.)

Jaundice and Insanity.

Dr. Fabre concludes a paper on this subject by a few observations on the influence of intercurrent icterus on the mental symptoms in cases of insanity. He says:—

The reciprocal influence which the mental disease and the intercurrent affections may have exercised upon each other, will appear from a special examination of each of the observations.

In the first case the jaundice supervened in a lunatic already enfeebled, and consequently predisposed by a subacute attack of alco-

holism, with delirium of persecution, and hallucinations of sight and hearing. Before the invasion of the intercurrent affection, slight mental improvement had occurred, and on this the icterus had no modifying influence. D. is actually in a stationary condition; he is conscious of his previous state, and his hallucinations become more and more rare; his intellectual faculties are generally enfeebled.

The second case was affected, when the icterus appeared, with monomania, with predominance of ideas of persecution and demoniacal possession. She also presented signs of general feebleness, with purpura and scorbutic symptoms. We have already remarked the singular coincidence of the physical with mental improvement in this case.

It is beyond doubt that, in this patient, the attack of mental derangement was induced by physical enfeeblement, a kind of marasmus consecutive to a dropsical affection.

Without wishing to attribute to the jaundice all the credit of the recovery from the mental disease, is it not permitted to suppose that the treatment directed against the icterus also favourably modified the general condition of the patient, and consequently caused complete amelioration of the mental state? It is well, indeed, to remark that dropsy, adynamic hæmorrhage, and jaundice are three diseases possessing a character in common, disorder of the circulation, and that the return of this important function to a normal state must have resulted in the disappearance of those affections which the disorder had occasioned, mental derangement among them.

We observed in the third patient only a temporary diminution of the excitement which she habitually exhibits. This comparative calm continued during the whole period of the icteric symptoms. Since that time A. has become excited as before, and her mental condition has not otherwise varied.

The fourth patient laboured under general paralysis. In him no itching was observed, and we may attribute the absence of this symptom to the analgesic condition of the case. Excitement, depression, and alternation of excitement and depression may be observed in general paralysis. We could give examples of these three forms of the paralytic affection, of which the first is characterised, in regard to the intellectual disorders, by predominance of ideas of grandeur; the second by prominence of hypochondriacal ideas; and the third by the alternation of these mental symptoms. It is this third form which we observed in P.

At first, and, according to him, his health had never been better, purgation produced an astonishing effect; the patient was with great difficulty kept in bed.

Some days afterwards, and when the jaundice began to disappear, P., now calmer, nevertheless complained constantly, no longer wished to rise, and said he suffered from affections of the limbs, though examination failed to discover them.

This period of depression has since given place to one of excitement.

L., who was the subject of the fifth observation, had just recovered from a long attack of excitement when jaundice appeared. The state of calm has since been complete and has not varied.

Finally, M. is a case of periodic excitement. The intervals are very short. Since his recovery from jaundice, this patient has continued calm, and has not presented any signs of that violent excitement which renders him occasionally very dangerous.

In *resumé*, we may say that jaundice had a favourable influence upon the progress of mental disease.

In one case the excitement ceased during the whole period of the icteric disorder.

In several patients it was suspended for an uncertain time.

Finally, in one patient the recovery from mental derangement coincided with that from the jaundice, and may, in our opinion, be attributed to it.

On a Case of Multiple Nervous Disorders following Fright.

We do not intend to follow Dr. Desmares in his reflections on this case, but simply to give its leading features, very much as related by him.

The patient is a girl of 11½ years of age, and with a good family history. For some time before the nervous symptoms appeared she suffered from intermittent fever and glandular abscess in the neck.

In February, 1871, she one day saw one of her school companions have an epileptic fit; this scene greatly alarmed her, and caused an impression on her mind which continued several days. She was still under this influence when the first symptoms of her disease appeared. Attention was first aroused by a singular tendency to sleep; the child, who till then had been lively and active, suddenly ceased to play and work; she remained motionless all day, plunged in a kind of hebetude, and immediately that she was left alone she fell into a profound drowsiness. During the night she was disturbed by frightful dreams, during which she saw a man who ran after her and wished to kill her. In a short time convulsive symptoms appeared; epileptiform attacks with premonitory cry and bloody foam at the mouth. These seizures occurred every day for about a month, and during this time the child's intelligence and memory became enfeebled with such rapidity that she soon forgot all she had learned. In April there was a remission until June; the attacks became less strong and frequent, and immediately a corresponding improvement appeared in her intelligence. But during June the fits returned more violently than ever; often more than twenty were observed in a single day. During the intervals the child remained almost completely deprived of the use of her limbs, particularly on the right side. She became so demented that she no longer recognised her parents; they were obliged to dress and feed her, and often the excitement produced by these movements caused the return of convulsions.

It was in this condition that Reine entered the asylum of Bailleul on 26th August. After some days' observation M. de Lamaëstre prescribed a strictly tonic regimen and bromide treatment. Immediately there was rapid improvement; the attacks became less frequent, and towards the end of September they did not occur oftener than three or four times a day. At the same time their character changed; in place of their former epileptic nature, they were rather of a hysterical type: clonic convulsions from the beginning, with violent movements of the arms and legs, of such violence that it was necessary to bind the child to prevent her injuring herself. There were also spasms of the stomach and pharynx, rapid contractions of the diaphragm and abdominal muscles, and a dry, harsh, fatiguing cough. No initial cry, foaming at the mouth, or period of coma were observed.

At this period the attacks were very variable. Sometimes Reine felt that she was about to have an attack; she said that she desired to sleep, then threw herself on her bed, and immediately her eyes closed as if she were in natural sleep. But in an instant the expression of her face changed, the features contracted, and the child pronounced some badly articulated words, which appeared to indicate intense fear. At the same time she turned sharply round, and moved her limbs as if driving away and striking some one. After a moment's calm the same recurred, perhaps three or four times. During the intervals of rest sensibility was preserved, and if one pricked the neck or the face, the child began to speak and strike. Finally, after ten minutes, she awoke, and said that she had dreamed that a boy ran after her and wished to beat her.

When the epileptic attacks became less violent the general condition improved considerably. The child's intelligence revived, and she began to speak to those who took care of her. She answered questions pretty well, fed herself, and walked with ease. Still the right side remained markedly weak; the pupils were much dilated and contracted but little to light; particularly after attacks, sight appeared dim; tactile sensibility was everywhere preserved, but there was complete analgesia of the hands, forearms, and external surface of the arms.

On 6th October the child had not had an attack for a whole week, and she stated that she would have no more, and that she was cured. When asked the reason of this belief, she answered that during the previous night she had seen a lady dressed in a white robe with a veil; this lady was the blessed Virgin, who had given her her blessing and told her that she was cured.

From 6th to 25th October no convulsive attacks occurred. Only every night, shortly after going to bed, the vision re-appeared, and the child relapsed into a state very analogous to that which we have described above, and which may be considered to occupy a position intermediate between hallucination and dreaming. But the scene had an entirely different character. Instead of being terrified, the child was

happy and smiling, she clasped her hands, made the sign of the cross, and threw kisses. From time to time there were intervals, during which she remained at rest, respiration was tranquil, and the general aspect that of a child in natural sleep; only this sleep was so profound that she might be shaken and even carried from one bed to another without awaking.

This species of vision or ecstatic dream returned every night with perfect regularity from 5th to 25th October, and during these 20 days no other symptom was observed. Under the influence of this prolonged calm, the general condition greatly improved, the analgesia disappeared, the gait became easy, and the right hemiplegia could scarcely be observed; lastly, the intelligence recovered all its activity.

Nevertheless, in spite of all these delightful changes and the firm confidence which the child expressed in the promises of the veiled lady, we could not consider her as recovered, not even as certainly convalescent; it was evident that the morbid nervous excitement, although probably diminished, continued. The very considerable difference in the symptoms was chiefly due to the fact that the excitation had changed its seat; the nerve-centres which presided over sensibility and motility had almost recovered their normal function, whilst disorder was produced in other parts of the encephalon. The influence which determined this form of metastasis was completely unknown to us, and we could not guarantee that an inverse movement of the morbid process would not bring back convulsions.

Indeed, they re-appeared on 25th October with much violence. After the attacks, we observed again various disorders of sensibility, motility, and intelligence. The child was dull, and with difficulty answered questions. From transient paralysis of the muscles of articulation, speech was embarrassed and almost unintelligible. Right hemiplegia with dilatation of the pupils returned. There were painful contractions of the flexors of the fingers, with hyperæsthesia of the skin of the neck, face, and dorsal surface of the hands. If the finger was passed lightly over these parts the child uttered cries of pain. Add to the preceding symptoms pleurodynia and epigastralgia. We never observed spinal pains.

This series of attacks, which occurred towards the end of October, only continued four or five days. During this time the child was generally tranquil, but occasionally the calm was interrupted by fresh attacks, the character and duration of which have varied much. Sometimes they consisted only of involuntary and convulsive bursts of laughter, which continued about ten minutes. Twice very curious rotatory movements were observed. The child lay upon the right side, and turned rapidly from right to left, like a dog which tries to catch his tail. During November there were convulsive attacks which were preceded by a chattering of the teeth. Was this phenomenon but a new form of expression of the nervous disorder?

or ought it rather to be considered as a return of the miasmatic fever from which the patient had suffered so long during the preceding year? We believe that the second supposition is the more probable; 1st, because the attacks which presented this character returned with a certain periodicity, at first every fourth, then every third day; and, 2nd, because they were not slow in disappearing under the influence of sulphate of quinine.

When we ceased the observation of this case (15th January, 1872), the child had been calm for several days; she had a good appetite, and natural sleep, with normal sensibility everywhere. The gait and all the movements were easy and confident, although the limbs of the right side were still relatively feeble. The pupils were slightly dilated and the right slightly larger than the other. The condition of the intelligence and memory is very satisfactory. Reine, who only knew Flemish when she entered the asylum, can now speak and read French very fairly.

On Alcoholism, &c.

At a meeting of the French Med.-Psych. Association in May, 1872, M. Auguste Voisin made some interesting observations on:—

1st.—The influence of the various alcoholic drinks upon the form of mental derangement.

In the acute state, the delirium was caused in four cases by wine alone, and it assumed the form of lypemania; in one case by brandy, mental symptoms, those of lypemania; in two cases by absinthe alone, one of these was a melancholic, the other had symptoms of pride, &c.; in two cases by brandy and wine, they were melancholics; in two cases by wine, brandy, and absinthe they were cases of mania with ideas of pride, &c.

In the chronic state the symptoms of alcoholism were caused in three cases by wine alone; one of these was amnesic and aphasic, another was demented, and the third had ideas of grandeur. In six cases it was caused by brandy alone; in two of these the symptoms were those of dementia; in three stupor was present; and in one an extraordinary mobility was observed. In eleven cases absinthe was the only cause; of these five were sad, &c.; one was melancholic; one suffered from stupor; two from "abrutissement;" one had ideas of grandeur; and one was morally insane. In the case of alcoholism produced by wine and absinthe, amnesia and aphasia were present. In two cases due to the use of wine and brandy, one suffered from dementia, and one from lypemania. Of the three patients whose illness followed the use of all kinds of drinks, one suffered from amnesia, one from irregularities of character, and one from dementia.

2nd.—On Conception during Drunkenness.—As the result of seventeen cases which were fully examined it would appear that wine, brandy, and absinthe exercise an almost identical influence upon the

products of conception. Epilepsy, convulsions in childhood, and chronic myelitis are the possible consequences of conception during drunkenness, whatever the intoxicating agent may be.

3rd.—On Conception during Chronic Alcoholism, without Drunkenness.—In the eighteen cases observed, there were born eight idiots and ten epileptics.

Of the eight idiots, four were the issue of fathers who indulged in wine, two of brandy drinkers, and two had mothers who drank brandy.

Of the ten epileptic children, five had fathers who drank brandy and wine, three who consumed only wine, and two who intoxicated themselves by absinthe.

On the diagnosis of general paralysis and alcoholism, M. Voisin makes the following remarks:—

Writers appear to me to be entirely mistaken when they recognise a general paralysis of alcoholic origin. I maintain, from what I have seen, that the lesions of alcoholism completely differ from those of general paralysis.

Autopsies of alcoholic cases, which I have made, have shown me that the characteristic cerebral lesions of these cases consist in fatty and atheromatous degenerations, in dilatation of the arteries, in sanguineous exudates in the vascular sheaths and in the nervous substance, in cerebro-meningeal congestion, in œdema, and that there does not exist hypertrophy of the connective tissue, or proliferation of nuclei; that is to say, that alcoholism leads to degenerative lesions, and not to inflammatory changes. We observe, indeed, opacities, milk-spots upon the meninges, but they are not due to adhesions to the brain; exudative lesions are observed at these spots, but none inflammatory. It will be objected that inflammatory lesions are observed in professional drunkards, in the serous membranes, and specially in the pleura. But these truly inflammatory lesions are due not to the primary action of alcohol, but to chills to which drunkards are exposed by remaining stretched for hours upon the ground to cold and to rain.

As to the neo-membranes of the parietal arachnoid found in certain cases of alcoholism, and which might be brought forward as demonstrating the possibility of lesions of a hyperplasic and inflammatory nature, nothing proves that they are the product of primary inflammation of the arachnoid, as Virchow, Vulpian, and Lancereaux wish to show.

I believe, on the contrary, that they are the consequence of hæmorrhage from the dura mater, consecutive to vascular changes; the hæmorrhages cause irritation of the membrane, and consequently secondary inflammatory lesions.

An observation by Luys is very remarkable in connection with this. In a quite recent case of arachnoidean hæmorrhage, Luys found on the surface of the clot tangled laminated fibres, patches of fibrinous ap-

pearance, stratifications in which he saw some new embryoplastic fibrils, and he noted a complete absence of vessels.

It must be added that, if sometimes the neo-membranes of the arachnoid contract adhesions to the brain, these adhesions are partial, and that the cerebral inflammation is a seeondary lesion due to the irritation produced by the neo-membrane, and it is not a primary alteration due to alcoholism.

On the whole matters under discussion M. Voisin's conclusions are :—

1.—The character of the alcoholic beverage has no special influence upon the form of mental disease, and that absinthe does not lead to symptoms differing from those produced by other liqueurs or drinks.

2.—A certain beverage does not lead to the development of this or that disease, or degeneration, in the children of drunkards, whether they have been conceived or not during drunkenness of the parents.

3.—Delusions of grandeur, riches, &c., are present in acute and chronic alcoholism, and they cannot be considered as distinctive of general paralysis.

4.—General paralysis cannot be produced by alcoholic drinks, and the anatomical changes of that disease and alcoholism are essentially different.

5.—Liqueurs d'absinthe are not peculiar in producing epileptic attacks.

On Cysticercus of the Brain.

In connection with one case which came under their notice, Drs. Bécoulet and Girand have written a short paper which is specially valuable as giving numerous references to the foreign literature of this rather unusual disease.

The following are the chief facts of the case :—Nicolas V., æt. 28, was admitted into the Maréville Asylum on 11th April, 1871. He was a soldier in the Light Infantry, and made the campaign to Mexico, where he remained six years. Unfortunately, information as to his antecedents is very incomplete. It is known, however, that on 28th May, 1867, he re-engaged for seven years, but on 9th December of that year he was certified as suffering from lypemania, and as suicidal, having attempted to destroy himself by hanging. He was cut down in time, and animation restored.

He was sent to the military hospital at Metz, where he was under treatment for a month. M. Herman described his condition as follows :—V. entered the hospital to be put under treatment for an affection of the nervous centres. He labours under lypemania, characterised by a state of divergation, accompanied by weeping and habitual depression. All the other functions are normal. Various lauded remedies having been employed without any beneficial result, he was transferred to Maréville on the date already mentioned. Dr. Bonnet, who examined him at this time, gave the following certifi-

cate:—At present all the intellectual and moral faculties are obstructed, and nothing is perceived by this person, who is like an inert mass which is beyond all sensation of surrounding things.

This state of stupidité only continued to increase, and the patient wept and moaned constantly. It was necessary to urge him to take a little food; when he had been dressed in the morning he used to seek out some lonely corner, and there lament during the whole day. He uttered occasionally some words in German. If questioned, he only answered by lamentations. Nevertheless, when he received an order from the attendant he executed it, if of a very simple nature. He never presented any epileptic or paralytic symptoms. It was somewhat remarkable that his physical health continued pretty good in spite of his depressed mental condition. During the whole of his residence in the asylum his life and condition were the same as we have described. For some time it was observed that he was becoming pale and feeble. On 29th December, 1871, he was sent to bed for examination. He was very pale; the right leg was considerably œdematous, as well as the thigh up to the middle. A very large ecchymosis extended from the middle of the thigh to the middle and inner part of the leg. The whole skin was so cold that, when touched, it imparted the sensation of a dead body. The heart and lungs were normal. We prescribed vin de canelle, and warm camomile applications to the right leg and thigh. In spite of these means the patient died on 30th December, 1871.

Autopsy (1st January, 1872).—The thoracic and abdominal organs were normal.

Head.—No deformity of skull. The bones of medium thickness and density. About fifteen grammes of fluid were situate in the cavity of the arachnoid.

Brain.—There were observed, scattered upon the surface of the brain, about fifteen cysts, of the size of hazel-nuts, and containing a transparent fluid. They were situate upon the left anterior frontal lobe, upon the convolutions which bound the great cerebral fissure, upon the right hemisphere, and close to the fissure of Sylvius. They had the following relations to the brain and the membranes—most frequently, the cyst was situate between two convolutions which it depressed, and in the substance of which it was partly lodged. In stripping the brain of its membranes, the cyst was raised from the cavity in which it was partly contained, and in its place there was observed an impression of the form of the tumour, and excavated at the expense of the grey matter which was completely atrophied at this point. On opening the lateral ventricles, there was found a quantity of transparent serum in the left; and floating in the fluid was a small cyst free of all attachments. Its size was that of a small hazel-nut; it was ovoid and transparent. In its interior there was at the middle part a white spot corresponding to the depression of its envelope.

Examination of the Cysts.—The cysts discovered on the surface of

the brain had the following structure:—They were composed, 1st, of an external envelope continuous with the membranes of the brain, and apparently formed at their expense; 2nd, of a transparent vesicle, of ovoid form, and presenting towards the small extremity a white spot, which was prolonged into the interior. On touch, this spot imparted the sensation of a solid body.

On microscopic examination, the walls of the vesicle presented a granular appearance. On a level with the spot which we tore, we found the head of the cysticercus characterised by its circlet of hooks and its four stomata.

The remarks on this case are valuable, as they give numerous references to the foreign literature of the subject.

On Non-paralytic Insanity with Exalted Delusions.

To this essay by M. H. Taguet was awarded the Esquirol Prize for 1872. In its first part it gives a pretty full *resumé* of the French literature of the subject. Under the head "Etiology," we have discussed the influence of nationality, sex, age, social position, hereditary tendency, physical constitution, hysteria, epilepsy, education, and political events in producing this form of insanity. The definition and diagnosis of the disease are then discussed.

In M. Taguet's opinion, the "délire des grandeurs" must be considered as an epiphenomenon, requiring no special therapeutic treatment, and disappearing with the affections which produced it.

Treatment, it cannot be too often repeated, ought to be individual, and addressed equally to the physical and mental condition of the patient. This manner of procedure has found adversaries who, more desirous of being facetious than useful, have, for want of arguments, attacked it with derision. Ought the derangements of the mind, they ask, to be corrected by diluting atrabilious blood and by liquifying the blood detained in the portal vein? Shall we combat mental affliction by hellebore, and derangements of thought by enemata?

The partisans of somatic treatment deny the influence of work, discipline, and seclusion; and make pharmaceutical preparations play a considerable part, more especially opium and camphor. This latter drug is the sublime panacea for all ills, and they have exalted it to a degree to make Raspail jealous. The adversaries of this mode of treatment refuse it, in their turn, all efficacy. Lastly, there are others who reject completely all physical and all moral treatment. Doubtless experience teaches us that many mental diseases are cured by the efforts of nature alone, but does it follow that physicians must play a purely passive part? Because we have seen pneumonia cured by tepid water and rest, is it necessary to banish the therapeutic, the antiphlogistic and opiate treatment, and to reject antimonials?

At the top of all rational treatment we place confinement in an asylum, which has the double advantage of making the patient harm-

less to himself and others, and of exciting, frequently, new impressions which lead to beneficial diversion of thought. It is in this manner that travelling is so advantageous at the beginning of the disease. It is necessary, however, to remember that confinement is not equally useful in all cases. It is true that the isolation, the change of surroundings, the discipline and regularity have brought about a rapid improvement which is evident, pretty often, from the day following admission, in a certain number of patients; whilst in others, the care which has been bestowed upon them, the constant supervision of which they have been the object, and which they have erroneously interpreted, have only strengthened their ideas of grandeur and ambition, when these have not become complicated by delusions of persecution. In these latter cases it is impossible to leave at large the unfortunate patients who are generally subject to violent impulses, which the too easy indulgence of the relatives cannot restrain.

We find in hydrotherapeutics powerful adjuvants to medical treatment, if they are employed intelligently. A bath of too short duration is, generally, without any influence upon the lunatic. The patients, according to Brierre de Boismont, should remain six hours and more in their baths. It is impossible to give any precise indication as to the duration, which should be left to the discretion of the physician. It is not unusual to find that in Germany patients remain a whole day in a bath. Great care is necessary that the temperature be constant; it should range from 28° to 32° cent. To avoid congestion, we would strongly recommend the application, to the head, of a sponge soaked in cold water, which must be frequently renewed. Vapour baths have been found more hurtful than useful, and inapplicable in cases where there is a special predisposition to congestion. It is chiefly in lypemania that good results follow the use of the shower bath. It is less useful in cases of mania.

Hallucinations, which are inseparable from "délire des grandeurs," disappear occasionally under the influence of baths, opium, chloroform, belladonna, and stramonium. For some months we have employed, with success, chloral and cannabis indica. In the treatment of insanity, these drugs should be employed in much larger doses than in other diseases. Indeed, it is not unusual to see the innocuousness of these agents upon lunatics, whilst they cause all the symptoms of poisoning in those in a state of health.

On Locomotor Ataxy. By J. M. Charcot, Physician to the Salpétrière, &c., &c.

This small treatise is composed of four lectures, and forms the first part of the second series of Professor Charcot's "Lectures on Diseases of the Nervous System." It cannot be said that it contains much that is new, but the information is conveyed in a pleasant, easy style, and is up to date.

The first lecture is devoted to the consideration of the pathological anatomy of locomotor ataxy. He adheres to the usual opinion that the symptoms are due to an affection of the posterior columns of the spinal cord. It cannot be denied that, formerly, in undoubted cases of the disease, observers failed to detect any lesion of the parts mentioned; but Dr. Charcot very rightly attributes such failures to imperfect methods of observation, and he maintains that, at all periods, well marked degenerations may be detected if looked for in the right places and proper manner. Only time, care, and the application of a special method are required to yield the most convincing results. Examination of the cord by the unaided eye is of no value whatever. Besides alterations of the posterior columns, microscopic investigation has revealed atrophy of the posterior roots, posterior spinal meningitis, and atrophy and grey degeneration of various cerebral nerves.

Opinions still differ concerning the real origin of the disease. We know that it depends on sclerosis or grey induration of the posterior columns of the spinal cord. This process is accompanied by hypertrophy with fibrilation of the neuroglia, causing atrophy of the true nervous tissue. The spinal meningitis, which co-exists so frequently with sclerosis of the posterior columns, and which in such cases is entirely limited to these parts, would appear to furnish a new argument in favour of the irritative nature of the alteration. But where does this irritative lesion begin: in the neuroglia, or in the nervous element? Without pronouncing a definite opinion, M. Charcot is strongly inclined to the belief that the parenchymatous irritation is primary, and that the interstitial change is secondary.

In general locomotor ataxy, a degeneration of a special portion of the posterior columns is, as pointed out by the author and Vulpian, the characteristic and essential lesion. It is known that, in cases of this kind, there is to be observed, in addition to the sclerosis of the fillets of Goel, which is almost always present, two slender grey bundles. These, viewed on the surface of the cord, appear to occupy the posterior lateral fissures, and the most internal sensory roots appear to emerge from them. Degeneration of these bundles is, then, the special characteristic of the disease under consideration.

The second lecture is devoted to a description of the disease, special notice being given to the lancinating pains in the limbs and the *crises gastriques*. It is believed that the true significance of these gastralgic attacks has never been perceived.

The third chapter treats of the affections of the eye which occur in the course of locomotor ataxy. Although all the cranial nerves may be more or less affected during various stages of the disease, the optic nerves deserve special attention on account of the frequency with which changes occur in them. The disorders of sight may be classed in two divisions—1st, disorders of accommodation, diplopia, dependent upon lesions more or less transitory; 2nd, visual disorders due to a special degeneration of the optic nerve. M. Charcot describes the

lesion of the optic nerve under the name of progressive grey induration, and distinguishes it from sclerosis *en plaques*, on the one hand, and optic neuritis on the other. The symptoms are somewhat similar, but should never be confounded, as they are essentially distinct. Progressive grey induration of the optic nerves is indicated during life by certain ophthalmoscopic characters, which correspond to what is usually described as progressive atrophy of the papilla. He, with some others, considers these appearances almost proof of the existence or probable development of locomotor ataxy. He says that the great majority of women who are admitted into the wards of the Salpétrière suffering from amaurosis, present, sooner or later after their admission, more or less marked symptoms of locomotor ataxy.

To the naked eye, the alteration of the optic nerve appears in the form of a grey hardening. It begins, as a rule, at the peripheral extremity of the nerve, and then gradually extends towards the central parts. When examined microscopically, it is found that the degeneration which constitutes the grey induration, resembles what occurs in the spinal cord.

It is unnecessary to dwell at any length on the concluding lecture. It refers chiefly to the changes which occur in the joints of the ataxic. To convey a correct idea of M Charcot's observations on this subject, it would be necessary to prepare a rather lengthy abstract, and we do not feel called upon to do this at present.

These lectures contain several references to the works of English writers on locomotor ataxy and other nervous diseases, and give an excellent account of all that is essential and interesting concerning this disease.

La Tempérance. No. 1. 1873.

The French appear to be now acutely alive to the evils of drunkenness. Societies have been formed for its suppression, and the publication before us is the official organ of one of them—the *Association Française contre l'abus des Boissons Alcooliques.* It must not be imagined that this society resembles in any respect, excepting their common object, those which have flourished in this country for a number of years. Although much good has been done, it cannot be denied that the temperance cause has suffered greatly at the hands of its so-called friends, who, by their fanaticism and intolerance, have prevented many able men from lending their aid. Some distinguished men of science and leading ecclesiastics have countenanced the movement; but these, as a rule, have only tended to exhibit, by their more enlightened and judicious views, the folly of their co-workers.

The subject of temperance is beyond our province, except in its relations to insanity. We are, therefore, obliged to leave unnoticed much that might greatly interest those who study the temperance

movement in its more extended relations. To show, however, that it had become absolutely necessary to check the spread of drunkenness in France, we need only give a few facts mentioned in the first page of the Journal.

The consumption of alcohol, which was only 350,000 hectolitres in 1820, rose to 585,000 in 1850, and to 978,000 in 1869, not including the quantities which escaped payment of duty.

This augmentation, which must be chiefly attributed to the considerable increase in the manufacture of spirit from beetroot and grain, has produced most disastrous consequences.

From 1849 to 1869, the annual number of accidental deaths consequent upon alcoholic excesses increased from 331 to 587. Cases of suicide, due to the same cause, rose from 240 to 664 during the same period.

Crimes against the person, committed under the influence of drunkenness, have augmented in the same proportion.

Lastly, the increase in the number of cases of insanity due to intoxication has constantly followed, during twenty years, the increased consumption of spirits, notably in those departments which use chiefly spirits manufactured from grain and beetroot. In the majority of these departments it has attained the frightful proportion of 25 to 40 per cent.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held on the evening of Wednesday, December 3rd, at Bethlem Royal Hospital. Dr. Harrington Tuke, President, occupied the chair. The following members and visitors were present:—Dr. Harrington Tuke, President; Dr. Wilks, Dr. Maudsley, Dr. Wood, Dr. Blandford, Dr. Boyd, Dr. Langdon Down, Dr. E. S. Willett, Dr. Paul, Mr. Richards, Mr. Byas, Dr. Mickle Dr. Rayner, Dr. Savage, Dr. Sutherland, Mr. Warwick, Mr. Hall, Mr. Wagstaffe, Dr. Stocker, Dr. Sabben, Dr. Balfour, Dr. Grant Wilson, Dr. Scofield, Mr. H. Manning, Dr. Hemming, Dr. Thompson Dickson, Mr. W. Williams, and Dr. Rhys Williams.

The PRESIDENT, on taking the chair, said—The custom at the quarterly meetings has always been to take the minutes of the previous quarterly meeting, as published in the Journal, as read. They are to be found in our Journal for April last. I may express a hope that as the secretaryship has now passed out of my hands these minutes may be reported more fully than they have been. If anyone has any objection to make to the report as printed, I must ask him to make it now, otherwise I must put it to the meeting that these minutes be confirmed. I would also as President ask the Secretary to preserve the MS. minutes.

The minutes were confirmed.

The PRESIDENT—We meet this evening under circumstances of great interest, from the number of eminent scientific men present; and I must congratulate you on meeting here in Bethlem Hospital, and in this old hall of medicine. There are several very interesting papers on the list, and a most important one by Dr. Blandford "On Auditory Hallucinations." It is the usual rule to spend the first

half-hour in clinical discussion, but as the subject of Dr. Blandford's paper is of great importance, and as it is likely to be followed by an animated discussion, I think we had better proceed with it at once.

Dr. BLANDFORD then read his paper, which is to be found at page 507 of this Journal.

The PRESIDENT—I am sure you will most cordially agree with me that we should offer Dr. Blandford a vote of thanks, both for his paper and for the subject he has chosen for discussion this evening. It is not usual for the President to propose a vote of thanks, but I should be very happy to do so in this instance if the meeting will permit; and I should much like to speak myself on the subject of the paper. I beg to propose a vote of thanks, not for the purpose of stifling any discussion that might arise, but rather by way of encouraging discussion; and I should like to hear the views of the various members present upon the subject of hallucination of hearing.

The vote, "That the thanks of the meeting be given to Dr. Blandford for his able paper," was carried by acclamation.

Dr. WILKS—The subject of hallucination is, no doubt, one of great interest from a practical and clinical point of view, and therefore I should like to ask the author of the paper one or two questions respecting the diagnosis of a case where this symptom existed. Whether for example if a patient were able to correct his false impressions he would be called insane, and, therefore, whether it did not require a long and persistent belief in them to warrant a diagnosis of insanity. Herbert Spencer, I think, says that all our senses are imperfect except that of touch, and, therefore, they have to be interpreted into this before they can be relied on. This probably is so, for we find children and animals using the sense of touch to make themselves certain of the nature of an object, and the man who saw the ghost of his father sitting in his old arm chair could not get rid of the impression until he threw himself into the chair also. This is the common experience of mankind, as we find expressed by Shakespeare in Macbeth, when he has the vision of a dagger and says—

> Come let me clutch thee,
> I have thee not and yet I see thee still.
> Art thou not, fatal vision, sensible
> To feeling as to sight?

And then concludes that it is a dagger of the mind, a false creation, proceeding from the heat-oppressed brain, and that his eyes are made the fools of the other senses. I take it that this false impression, if remaining and not corrected by the other senses, would have gone on to madness. In the same way if a man sees a ghost, it is evident that there is no impression on his retina, and therefore his brain, for the time being, must be in a morbid state. What is the condition of people who, at a spiritualistic séance, see Mr. Home float out of a window and in again, and who are not anxious to correct their visual impressions by the sense of touch? As regards the auditory hallucinations which is the subject of the author's paper, a far greater difficulty must exist in the attempt at correction. I should have liked Dr. Blandford to have made a more marked distinction between hallucination and illusion, for to my mind they are as different as subjective is from objective. I daily feel that we ought to fix more precisely the meaning of these terms, as the distinction is one of practical importance. For example, if in an amputated leg the nerve in any part is irritated, and the patient becomes conscious of his toes being touched, I should not regard this feeling as subjective, but I should do so if the sensorium were impressed with such an idea when no irritation of the nerve had been induced. If one could draw a distinct line between the nerve which enters a grey centre and the centre itself, that line, I take it, would mark the division between the objective and subjective sensation, according as the grey centre was impressed through the nerve or independently of it. Physiologically there must be some precise distinction of this kind. Indeed the very essence of the author's paper is based on this. It is possible that both the visual and auditory centres might be impaired or in a morbid state, together with the special nerves proceeding to them, and I think I have read of cases of patients who had hallucinations of sight through one diseased eye, and hallucinations of hearing through a deaf ear.

Dr. MAUDSLEY—As no one seems disposed to speak now, I will take the opportunity of making a few remarks which have been suggested to me by the paper.

The subject is a difficult one to discuss, and I fear I may not succeed in expressing very clearly what I wish to say. No doubt, as Dr. Wilks has said, a false perception of sight is corrected directly by the sense of touch, but it would seem that a false perception of hearing cannot be corrected by touch—at any rate directly. It would be corrected first by sight, and in the ultimate event by touch. Perhaps that may be a reason why auditory hallucinations are more persistent than visual hallucinations. But the main object which I had in rising was to express my doubt of, or dissent from, Dr. Blandford's suggestion, that the morbid seat of hallucination of voices was in the medulla oblongata. From a physiological consideration of the nature of perception, as well as from a pathological consideration of the character of the hallucination, I should hold their morbid seat to be in the supreme centres of the brain. When a person hears voices which have no existence out of him, and cannot correct his false perceptions, and is insane—for, of course, he is not insane if he recognises their real nature—it seems to me that higher nerve-centres than the auditory ganglia in the medulla oblongata must be affected. There can be no doubt that there is a difference between sensation and perception—between the impression which an external object makes upon the sense, the feeling, and the perception of the object as the cause of the affection of sense; the former taking place probably in the sensory ganglia, the latter in the higher cerebral centres. Take, for example, the sense of vision. When I have a perception of this chair, the perception is not simply the impression which the chair makes upon my sense of sight, but it is a complex result to the formation of which the sense of touch has mainly contributed, an acquired perception. When I see it, I have not only the visual impression, but the impression of solidity, form, size, and position, which vision alone could never give me originally; in fact, I see, so to speak, all the impressions which my other senses have given in regard to the chair. Three parts out of four of this perception, as of any perception, are really inference, and so far imply reasoning. How is it possible then, that all this can take place in the ganglionic centre of the sense of sight? It must take place in the higher centre in which the deliverances of the particular sensory centres are co-ordinated into a complex perception—in the perceptive centres. And these are probably the supreme centres of the convolutions. The same considerations apply to the phenomena of the other intellectual sense—to the auditory perceptions of voices, and to their probable localization. I have taken for illustration the sense of vision, because the matter is more obvious in its case. When a person hears voices which have no objective cause speaking evil of him, or suggesting painful ideas to him, and cannot be persuaded that they are not real, I should certainly hold his supreme cerebral centres to be disordered. If the auditory ganglia only were disturbed, supposing that such morbid phenomena might be produced by disturbance limited to those centres, there would seem no reason why he should not correct his false perception by the sane evidence of his other senses. In illustration of the influence of the ideational centres on the production of hallucination, I may adduce the instance of children, and of grown-up persons, too, sometimes, who, on awaking suddenly from a dream, actually see the persons about whom they have been dreaming, or hear their voices for a moment. Or, again, take the instances of men who have been able to produce an hallucination at will by thinking intensely of the object. It is related of Goethe, who was the first to propound the opinion that all the parts of the flower, its sepals, petals, &c., were modified leaves, that he could, by an effort of will, produce a vision of the flower undergoing this development. One remark made by Dr. Blandford, in his paper, which is, no doubt, true, struck me as interesting in this relation—namely, that the particular hallucinations accord with the patient's particular temper or mental disposition. This would seem to indicate that the highest centres are involved in the phenomena. The case, too, which he quoted from Sir Henry Holland, is a particularly interesting one. The patient being an acute observer, capable of introspective analysis, was able, after a time, to recognise the morbid nature of his hallucinations, partly from not discovering any person in the place from which the voices seemed to proceed, and partly—and this is the point to which I would draw attention—by observing his mental states, and discovering that what he fancied the voices said were really the thoughts in his own mind. The morbid ideas he thus perceived to be present in consciousness before the hallucinations; instead of being the effect, they were really the causes of them. On pathological grounds, therefore, as well as on physiological grounds, I cannot but think it a mistake to suppose that the morbid seat of these auditory hallucinations is in the medulla oblongata.

Dr. SAVAGE—It has been said that disease of the eyeball may give rise to hallucinations; if this be true, may not disease of the nervous ganglia, or of the cerebrum connected with these nervous ganglia also give rise to hallucinations? On the whole, I think in the majority of cases that the cerebral expansion is the most common seat of the disorder. As to its appearance and the chance of recovery, I have seen hallucinations occur in many acute cases; as a rule such cases have not done well. In regard to the age of the patients, I quite agree with Dr. Blandford that it is most common in youth and from that to middle life, and that it is more frequent in women than in men. There are some good cases now in the hospital, one in particular of a man who constantly declares, "I hear the voice of God addressing me with the words 'Beware! Beware!'" I asked him "how he heard this voice?" and he answered, "I hear the voice of God vibrating through me. I hear it in my muscles." This is proof that there is more in the cause than is to be found in the auditory centre. In the female wards I have noted that two-thirds of the patients suffer from aural impressions, that is from hallucination of sound.

Dr. DOWN—Although I did not hear all of the paper, the portion I did hear was very interesting, and the subject is of considerable interest to all, and to those who do not see cases of hallucination in those who are not actually insane some observations upon cases may be useful. I have observed two or three cases in which there was hallucination of hearing, only that it was primary; in several it was associated with sexual irritability, and in two or three cases under my notice it was associated with the practice of masturbation. In two cases in the female the auditory hallucination had reference to the male sex: one case, that of a lady, who came to consult me lately, and who has since convinced herself that the sounds were unreal. But she was tormented with the idea that either the butler or the footman in her brother's house spoke to her. When she imagined that the butler spoke to her at the table and asked if he should give her wine, she would answer and become very angry. But she had entirely convinced herself that the supposed speaking to her was an illusion. If such a person can convince herself that the impression is unreal, I should like to ask if we can sign a certificate and place her in an asylum, or treat her as an insane person? For my own part, in this case I should not feel justified in signing a certificate.

Mr. WARWICK—From the cases I have collected, and the observations I have made, I would judge the impression in hallucination to be much more frequently one of vision than of hearing. In the parallel case of dreaming we have the impression much more commonly affecting sight than sound, and in dreaming the vision is to the mind a present reality. The eye is the great gateway of the mind, and it is the visual impression that makes the thing of more force, or the impressions most vivid. I was twice the subject of violence, and in both instances from patients suffering hallucinations from visual impression. In the first case, a lady made a violent attack upon me, rushing upon me and pulling my hair; and she explained to me afterwards that she was impelled to do so whilst labouring under the impression that I was wearing a large yellow wig. The other instance was that of a gentleman who knew me well enough, and who afterwards expressed deep contrition, but stated that he mistook me for a Dr. Adams, to whom he attributed his incarceration.

Dr. WILLETT—I have a patient suffering from visual hallucination, who assures me that his delusion is entirely gone, and who has often said that whilst speaking to me he has convinced himself that his beliefs were delusion, but when he is alone he is depressed; he will then go back to his past life, and although highly connected he believes from his vision of himself that he is an outcast. He is a thin and spare man, and I believe losses in business whilst in an ill-state of health were asssociated with the origin of this delusion. Whilst you speak to him his appearance is animated and cheerful, but he relapses into the same morbid state when left alone.

Dr. SABBEN—I have followed the remarks made by various speakers, and have noted those of Dr. Maudsley. He has stated the condition in association with hallucination, but he has not stated the result. In regard to the permanency of hallucination, I may relate the following case:—I had the honour to be an old pupil of Sir James Simpson, and he had an old servant who used to hear the service in the parish church on Sundays. Whilst she was about her work, and on one occasion when he went into the drawing-room, he saw her standing upon the hearth-rug, and putting out her hand said "Stop." He did stop, and afterwards asked her what she

had called upon him to stop for, and she said that she was listening to the service in the church. During the whole of the week she had no illusion, but it returned every Sunday.

The PRESIDENT—Could she hear the service?

Dr. SABBEN—No, for the house is some distance from the Church.

The PRESIDENT—But she thought she heard it?

Dr. SABBEN—Yes.

The PRESIDENT—Cases of this kind are most common in persons who have only one delusion.

Dr. SABBEN—I saw one case in a gentleman who stated that whilst under a tree and picking some apples he heard the voice of a woman. He was under my care for 18 months, and it then became necessary to place him under restraint. He was afterwards allowed to be at large, and has since got married, but when I saw him the other day he still had the delusion.

The PRESIDENT—What is the pathology; and what is the result of the study of the pathology of this state?

Dr. SABBEN—I have taken great interest in this subject, for this is the great class which fills the lunatic asylums and workhouses. I have discussed this subject with Professor Laycock, and he agrees with me in the belief that it occurs in morbid states of the brain, from imperfect nutrition. I have seen many cases, and found them with various pathological conditions.

The PRESIDENT—Atheroma is connected with this state, and we know that atheroma may begin before old age. Is there anything by which we can determine the presence of atheroma?

Dr. SABBEN—I believe there is. I am under the impression that patients with atheromatous vessels are subject to small vascular spots on the skin, by which the presence of atheroma may be with certainty diagnosed.

The PRESIDENT—Can anything be done for treatment of these cases? Can anything be done in the early stages? The patients often get much better.

Dr. SABBEN—You may get them better, and much is to be done with nutrition. They will improve so as not to hear the voice, and then they will be able to sleep, and this shows the cause to be dependent upon ill-nutrition, but the condition I believe to be permanent.

The PRESIDENT—As I ventured to predict, the able paper of Dr. Blandford has led to a very animated and valuable discussion. There is no more important symptom in brain disorder than hallucination, either of sight or hearing. I am not prepared to agree with Dr. Maudsley that hearing is one of the inferior senses, or to ascribe so much value as he does to the touch, as a means of correcting sensation, if by hearing is only meant that function which enables us to appreciate sound. I do not differ from him, but the subtle powers of the auditory nerves, shewn by the finest discrimination of language on intonation is one of the highest gifts to man, and this sense it is we find perverted in hallucination of hearing. I was surprised to hear from Dr. Blandford that his experience led him to believe hallucinations to be uncommon, and not often curable. My own experience is exactly the reverse, and I consider the aphorism of Dr. Mullinger, which boldly states that such hallucination is never recovered from, is entirely founded on error. Hallucination of hearing may be broadly divided into two great divisions: in the one the reason is not lost, and self-control remains; in the other, hallucination becomes absolute delusion, and leads to acts of violence or folly. Of the first of these divisions, the case of Dr. Samuel Johnson, as quoted by Dr. Wilks, is a remarkable instance; the idea that he heard his mother calling to him from Lincoln, he being in London, was a pure hallucination, but he did not answer or act upon the hallucination, and he was not therefore insane. I saw to-day, for the first time, a remarkable example of this form of hallucination: a gentleman, who gives me permission to refer to his case this evening, complains that he hears people he meets in the street distinctly say "this man is a nervous lunatic," and women say equally disagreeable things. He is quite aware that his ears deceive him, and asks for treatment to meet the difficulty. As Dr. Maudsley has already observed, such cases frequently asise from sexual excess. With regard to the chances of recovery, I have not found insanity associated with hallucinations of hearing more difficult to manage than other recent forms. I saw two cases of this affection with Dr. Boyd, during the last twelve months; one, the worst case of the kind I ever saw, imagined that his dead brother's voice told him

to commit all kinds of dangerous absurdities. This gentleman, after six months' illness, is perfectly well. In the other case the hallucination of hearing has passed away, while other delusions remain. The cause of this disorder seems to be congestion in or about the nervous centres of either sight or hearing; an overdose of quinine will produce the sounds of bells in the ears—thus arise the hallucinations of sight so common and so curable in delirium tremens. In the case to which I first referred, I found the patient had been in India, exposed to isolation, and had showed congestion of the brain by falling into heavy sleep in the midst of his judicial work.

Dr. BLANDFORD, in reply, said—Mr. President and gentlemen, I have to thank you for the honour you did me in according me a vote of thanks for my paper. The various remarks that have been made are so numerous that to reply to them fully would occupy as much time as another paper. In regard to Dr. Wilks' inquiry, many of these hallucinations may be traced to the sense of sight. I wished to confine my paper to hallucinations of sound, because I think the hallucinations of sight want to be worked out by themselves. To go into the subject would amply fill another paper. With reference to the subject of the words hallucination and illusion, I am inclined to think that they are words with certain meaning, but that in all discussions it is necessary, before using them, to define what we mean by them. Various authors regard them differently, and Dr. Pritchard, in his learned work, never uses the term hallucination at all, but uses illusion to express what I have been speaking of as hallucination. In reply to Dr. Maudsley, I would say that I by no means think myself authorised to say that the seat of hallucinations is in one part more than in another. We are far from determining the seat. I have certain reasons for making me think that they are not seated in the highest centres. I think with Dr. Maudsley that the higher centres are involved, and I think the case I have quoted, as given by Sir Henry Holland, confirms my view that the centres of the medulla are the seat of the lesion, for in this man the higher brain centres were healthy, by which he was able to correct aural impression. The higher centres may become diseased, and then the condition of hallucination will become permanent. I may give the same answers to Dr. Savage. To Dr. Down I would reply that I think the person should be detained, but much must undoubtedly depend, in the determination of such a question, upon the particular case. The two cases I have mentioned both persisted in the hallucination, and have sufficiently recovered to be at large; they are able so to restrain themselves that they can now pass their lives in ordinary society. In reply to Dr. Warwick, I must repeat that I avoided alluding to visual hallucinations for the reasons already given. Dr. Willett's case is interesting; as a rule more cases commence in early life than in advanced age. Dr. Sabben's case seems to partake more of delusion than of hallucination; and as for the pathology, I must defer to gentlemen who have more opportunity than I have of performing *post-mortem* examinations. I know that atheroma of the vessels is not unfrequently found, particularly in the middle cerebral artery, where it is sometimes to be seen solidifying the artery till it looks like a branch of coral; but more observations are wanted, and valuable service may be done by those gentlemen who have the opportunity of making the observations, if they will tell us what they find in association with these conditions. The President spoke of some cases in which the hallucination had passed away, but I think it would be interesting to know if this was a permanent case or only a temporary one. I will not detain you further.

The PRESIDENT then asked Dr. Balfour, who had given notice of a paper "On Pathological Appearances observed in the Brain of the Insane," how long his paper would take to read, as only twenty minutes remained, and there were numerous microscopical specimens to be exhibited; and suggested that Dr. Balfour's paper should be taken as read.

Dr. BALFOUR replied, however, that he could read his paper in a short time, and accordingly it was proceeded with.

(The Paper is unavoidably postponed until the next No. of this Journal.)

The PRESIDENT said—I think a vote of thanks should be accorded to Dr. Balfour for his paper, whilst we must regret that time prevents us discussing the many interesting points contained in it.

Dr. MAUDSLEY—I beg leave to second the vote of thanks to Dr. Balfour for his

valuable paper, and I regret that time will not allow us to discuss it now. In reference to the effect on character produced by disease or injury of brain, I may say that Dr. C. Skae has sent us for publication in the forthcoming Journal the interesting report of a case of mania arising from injury caused by the falling of a piece of coal on his head. The man's character underwent a remarkable change; he became morose and sullen; at first morose, surly, and irritable towards his wife and children, and afterwards violent towards them. Dr. Skae had him trephined, and he perfectly recovered.

The vote of thanks was carried unanimously.

Dr. WILLIAMS said - When Dr. Blandford gave notice of his paper, I did not know how much time would be occupied by it, or by the discussion upon it, and I endeavoured to secure some specimens, and Dr. Savage, Dr. Bage, and Dr. Thompson Dickson offered to exhibit some. At the close of the meeting this room will still be open, and, therefore, any gentlemen wishing to see these specimens will have the opportunity of doing so.

Dr. MAUDSLEY proposed a vote of thanks to Dr. Williams, which was carried by acclamation, and

Dr. WILLIAMS thanked the members, and the meeting adjourned.

The following Specimens and Drawings were exhibited :—

Dr. SAVAGE—Section of Spinal Cord; section of Diffused Sclerosis; case of Inflammation of Cord, and General Paralysis.

Mr. WAGSTAFFE—Sections through the Pons.

Dr. BOYD—Portraits in pencil of Insane Patients.

Dr. J. THOMPSON DICKSON—Sections of Brain showing Inflammation, Sclerosis; sections of Spinal Cord, showing Inflammation, Sclerosis, and the conditions associated with Paralysis Agitans. Progressive Locomotor Ataxy, and Progressive Muscular Atrophy; Litho-Photographs of the Insane, and Drawings illustrating Morbid Nerve Tissue.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held in the hall of the Royal College of Physicans, Edinburgh, on Thursday, 27th November. Professor Laycock presided. There were present:—Professor Laycock, Drs. Smith, Fairless, Fraser, Campbell, Thomas Howden, Batty Tuke, Ireland, Grierson, Lyall, Clouston, H. Hayes Newington, Smith, Sibbald, McBean (R.N.), and Rorie.

PATHOLOGICAL SPECIMENS.

Dr. IRELAND, who acted as Secretary in the absence of Dr. Fred. Skae, exhibited the brain of a man who had died in the Stirling Asylum, and read the notes of the case* from a manuscript sent by Dr. Fred. Skae.

The CHAIRMAN said that the specimen was a very interesting one, and the notes by Dr. Skae would have been exceedingly valuable if details had been fuller.

CHARTS OF THE BRAIN.

Dr. TUKE exhibited a set of charts of the brain published by Messrs. McLachlan and Stewart, South Bridge, Edinburgh. He said that the object of the charts was to assist in pathological operations. The charts exhibited a series of representations of the brain in its various aspects. They had been suggested by Dr. Howden and himself as in their opinion very useful in the *post-mortem* room in regard to marking down the exact position on which there was a lesion, and they suggested that the diagram which shows the lesion should be cut out and pasted in the pathological book along with the verbal description. He himself, with Dr. Fraser and Dr. Howden, had been in the habit of taking the diagrams from Professor Turner's work, and they had found them very useful in denoting the particular point of a lesion. Messrs. McLachlan and Stewart had resolved to publish these charts at

* It will appear in our Clinical Notes in the April No.

sixpence a sheet, and they had arranged that they should have a larger number of those representations of the parts of the brain which were most needed. Of the superior aspect of the brain they had six; of the lateral, eight; and of the inferior, two, and so on.

The CHAIRMAN said he had no doubt the charts exhibited by Dr. Tuke would be very useful as marking more exactly the position of the lesion, and he believed the charts would be a *sine quâ non* in all asylums where such inquiries were carried out.

Dr. CAMPBELL said he thought it might be better if they were to put each drawing in a separate leaf in a book.

Dr. TUKE said that the object in view was to publish the charts in the cheapest form possible. He ought to state that if credit was due to any one for the idea it was to Dr. Howden.

Dr. CLOUSTON, Morningside Asylum, said that the best way they could show their appreciation of the chart was to buy a lot of them and use them in their *post mortem* examinations.

The CHAIRMAN said that that might be put in the form of a resolution.

Dr. TUKE said he was going to ask the meeting to do so at a later part of the proceedings. He thought that a committee should be appointed in order to carry out a uniform system of examinations.

PAPER BY DR. BROWNE.

Dr. IRELAND read a paper by Dr. W. A. F. Browne on "The Perception of Time as a Feature in Mental Disease." *(See Original Articles.)*

The CHAIRMAN said—I am sure that we all felt much interested in hearing a paper on so important a subject. As Dr. Browne has done me the honour of referring to my book on "The Nervous Diseases of Women," with reference to the cases of rhythmical chorea, I may be permitted to make a few observations. The subject may be divided into two:—First, the perception of time as an act of thought, and secondly, the perception of time in reference to movements. As to perception of time in thought, it is necessary for us to consider the question in relation to the brain and its functions, and as to both forms of brain action in relation to it, the reflex function of the brain would lead us to a conclusion. Memory is requisite to the perception of time as an act of thought; and for memory a record must be made. What are the physical changes on which that record depends cannot be known; but we know that a re-excitation of the record under certain physical conditions induces reminiscence, and it is a comparison of that reminiscence with the present perception which is at the foundation of perception of time past. If there be no perception that there is time past, then a re-excitation of the record is presented to the mind as being the present. No doubt changes occur, as Dr. Browne points out, which sweep away the record, and the record may be within a limited or restricted portion of the brain, as proved by the fact that the record belonging to a limited portion of time—a certain number of years—may be swept away. As to the connection of time with movements, I many years ago studied the question with reference to the reflex function of the brain; and in my paper, communicated to the British Association for the Advancement of Science in 1844 at York, and afterwards published in the "British and Foreign Medical Review," of January, 1845, I mentioned facts of automatic or reflex rhythmical movements which must be familiar to many present as occurring in the insane. In that paper I mentioned the following case:—"A male patient in the York County Asylum, aged 44, and fatuous for thirty-seven years, cannot pronounce any word distinctly, nor understand what is said to him. He constantly holds a stone or other substance in the palm of one hand, and moves continually, as if slowly waltzing. Mr. Alderson, the resident medical officer, kindly assisted me to time his movements, and we found that he performed twenty steps in fourteen and a half or fifteen seconds, with the greatest regularity, and we measured his steps repeatedly. Another man, aged 34, in a state of dementia, stands for hours together, moving his hands and feet synchronously, in a way not easily to be described. He was found, when timed, to make twenty steps in ten and a half, or eleven seconds, with unvarying regularity. In these examples, as in the case of chorea, the source of the movements was centric, and, as the latter were connected with an idea of time, its seat was undoubtedly cerebral." Those connected with a tune are called automatic, but are, undoubtedly, excited as reminiscences by external impressions received through the sense of touch or other sense, and transmitted to the brain. The *Tarantati* referred to by Dr. Browne, seem to belong to a different category. There does not appear to be any solid proof that the

poison of the tarantula, a species of spider, is the exciting cause of the rhythmical chorea, but that the imagination, or suggestion and imitation are really the conditions under which the dance arises. The tune to which they dance, named the Tarantella, is a popular air; and in cases of rhythmical chorea in this country, it has been found that the patients danced to a popular air. In these cases the dancing movements depended on the re-excitation of the record of the air. Such a case is mentioned in that paper already referred to, in which it was discovered that the patient danced to a popular air, and that she had the tune dwelling in her mind. Imitation is, no doubt, an exciting cause of numerous movements, as in the epidemic chorea, referred to by Dr. Browne, of the middle ages. This source of movement must be very familiar to physicians in charge of the insane, morbid imitation being exceedingly common. Imitation is not uncommon as a simple nervous affection. Not long ago, when in Dublin, I heard of the case of a gentleman who had an irresistible impulse to imitate the style of speaking of those whom he addressed; so that when a Frenchman spoke to him in broken English he also conversed with him in broken English. There is a case on record of a man who could not avoid imitating every gesture, however ridiculous, of any person whom he met, so that, however absurd the motion, he was compelled to do it. The only method that can be followed satisfactorily in solving these difficult questions is that which constantly bears in mind that the phenomena to be investigated depend upon changes in the function of the brain. And the laws of reflex action help to elucidate that function.

Professor Laycock then vacated the chair, as he had to leave the meeting. Dr Sibbald was called upon to preside.

UNIFORM SYSTEM OF RECORDING POST-MORTEM EXAMINATIONS.

Dr. Tuke said they would all recollect that some four years ago a committee was appointed at one of their northern meetings to take into consideration the subject of a uniform system of case-taking. The system prepared was laid before the Society, and printed in the "Journal," and he trusted that it had been universally adopted. Speaking from his own experience, he found a great benefit from it, as enabling him to put down successively the salient points of each case. He thought the time was come when they should supplement this system of case-taking with a system of pathological notation. That would go a long way in removing the stigma that the profession had not done so much as it ought to have done in elucidating the subject of nervous diseases. He thought there was no doubt that physicians of general hospitals had done more to elucidate the subject in regard to cerebral disease than had been done in the asylums. The cause of this might be that the physicians of the general hospitals had no house stewards' work to do, and had to take part in the teaching of students. In consequence of that they were bound to condense their statements, and to make them as accurate as possible. In the face of the great advance of cerebral physiology, they must be aware of the fact that there was nothing too small that should not be noted; and though they might not be able to note any very great results, still as a body, by making these researches they would be preparing a store-house of facts for other observers. To this end, of having a uniform system, he held in his hand a paper containing various suggestions for the uniform system of notation of pathological appearances. It consisted of two parts—the first was simply devoted to the arrangements in regard to the appearances as seen in *post mortem* examinations; the second was to carry out a microscopic examination, both in the recent and in the prepared state. It might be said that it was impossible for anyone to carry out these processes in every individual case. That might be true to a certain extent, but he thought it was evident that it would be important if it were carried out as far as possible, and particularly if the condition of the brain in the recent state were observed. As to the microscopic sections, he might state that he had been applied to so very often to give details of the processes that, selfishly speaking, he thought it might be of great good to get them put on record. He believed that this scheme would have much greater weight if it was adopted generally by the association. He begged to suggest that a small committee be appointed to reform the scheme, and that it be an instruction to the committee to forward the results of their labours to the quarterly meeting in London, asking them also to take up the subject and arrange that it should receive the *imprimatur*

of the general meeting. He had prepared notes of the scheme, but would not detain the meeting by reading them. He left the matter entirely in their hands, suggesting that they should appoint a small committee for the purpose to which he had referred. He begged to propose that the committee consist of the Chairman, Dr. Clouston, Dr. Howden, and himself.

Dr. IRELAND said that for his part he was willing to listen to the details, and thought that the meeting should know what the scheme was before they sent it to a committee for consideration. The adoption of such a scheme evidently depended upon its being favourably received by a large number of individual members. He, therefore, thought that if a committee were appointed it should not be such a small one as proposed. It might very well happen, even after Dr. Tuke's scheme had filtered through his committee and sub-committee, and gained the *imprimatur* of the central meeting at London, that little would be gained, for they had no power to enforce it upon individual members. It reminded him of a story of someone who asked a king of Scotland to get a law passed that every man should give him a shilling. The king graciously consented to the petition, but added the proviso that they only should give the shilling who wished to do so.

Dr. CAMPBELL seconded Dr. Tuke's motion.

Dr. SIBBALD was inclined to think that they had not time to hear the details of the scheme at present. In his experience he had found big committees to be unmanageable.

Dr. IRELAND explained that he thought all the members present at the meeting should be allowed to come to the committee, if they desired to do so, or had any suggestion to make. He did not think it likely that those far from Edinburgh would come, and believed that not more than one half the meeting would appear, which would not make a large committee.

After some conversation, it was agreed that the committee should be composed of the following members:—Dr J. B. Tuke, Dr. Howden (Montrose), Dr. Sibbald, Dr. Campbell, Dr. Clouston, Dr. Howden (Haddington), and Dr. Fraser.

PAPER BY DR. CHARLES SKAE.

Dr. CLOUSTON then read a paper by Dr. Charles Skae, on a "Case of Traumatic Mania cured by Trephining the Skull." (*See Clinical Notes and Cases.*)

The CHAIRMAN said that this paper related to one of those facts which were most valuable, and well deserved to be recorded in their journal.

PAPER BY MR. H. HAYES NEWINGTON.

Mr. H. HAYES NEWINGTON then read the notes of a "Case of Insanity Dependent on Syphilis." (*See Clinical Notes and Cases.*)

Dr. TUKE said they were under great obligation to Mr. Newington for bringing before them such an interesting subject. Within the last two months he had had two cases of insanity connected with syphilis, and if it would not take up too much of the time of the meeting, he would read two papers in regard to them. He then read the notes of his two cases. (*See Clinical Notes and Cases.*)

Dr. CAMPBELL said he had received from Mr. Newington an impression that there was a tumour in connection with the membranes, but under the skull cap. He wished to know from Dr. Tuke, in regard to his cases, whether there was any tumour.

Dr. TUKE said it was a somewhat difficult question to answer, but he thought it was probable.

Mr. NEWINGTON said that people talked about one side of the body being alone affected by epilepsy, while the other side was perfectly quiet. Was it the case that the side was quiet simply because it was paralysed? He then described the condition of a paralytic patient, stating that the left side became paralysed after an interval of five days after the right side had been attacked.

Dr. IRELAND said he had listened with great interest to the paper of Mr. Newington, and he thought they were all very much obliged to that gentleman for the very lucid manner in which he stated the symptoms of the case to which he referred.

After a few remarks, in reply, by Mr. NEWINGTON,

The CHAIRMAN said he thought there could be no doubt as to the extreme value of the three cases to which reference had been made. The question seemed to turn on whether in describing these cases a special form of insanity had been described.

He thought that they had scarcely sufficient data in these cases to enable them to say that any one of them was a case of syphilitic insanity.

Dr. TUKE said that there was just this possible element, that not one of these cases might be syphilitic cases at all.

The CHAIRMAN said that Mr. Newington referred to some asylum reports, and seemed to think that where a physician did not refer in his report to syphilis cases he had none in his asylum.

THE NEXT MEETING.

It was agreed that Glasgow should be the next place of meeting.

On the motion of Dr. TUKE, a vote of thanks was given to the Chairman, and to the College of Physicians for the use of their room, and the proceedings then terminated.

THE ARGYLE DISTRICT ASYLUM.

Among the Reports that were published too late for notice in the last number of the Journal, that of the Argyle and Bute Asylum deserves notice for the views expressed by Dr. Rutherford in regard to farm work and its effect on the patients. The Asylum is well situated for the success of the experiment of having a very large farm attached to it, and of letting the patients work or wander about over it. There were 196 patients in the end of 1872, and the farm extends to about 400 acres, the greater part of which is rented by the Institution, and which is, therefore, in the position of an ordinary tenant farmer. Dr. Rutherford says:—

"The practice in treatment, adverted to in former Reports, has been still further developed during the year. No form of mechanical restraint, seclusion, or confinement in airing courts has been resorted to. The administration of drugs has been restricted to cases in which a recognised bodily disease or disorder was actually discovered. No sedative or stimulant medicines have been given to subdue excitement or depression. Comfortable apartments and clothing, a liberal dietary, and abundance of out-door exercise in the form of employment or recreation have been the means used to subdue the manifestations of mental disease. The use of opiates has been restricted to an occasional draught at bed time, generally in cases of illness, where it would have been required independently of the mental condition of the patient. Alcoholic stimulants have—doubtless owing to the healthy stimulus imparted by useful out-door exercise—also been little required during the year. The actually sick, and the weakly old people, have been the principal recipients of this kind of medicine. The use of single rooms for patients inclined to be noisy and restless, continues to be restricted as much as possible.

"An aversion to regular well-directed industry is a characteristic of chronic insanity; and in this Institution, to combat the tendency of idleness or to do only such things as are in accordance with the disordered fancy, is a leading principle of treatment. To see chronic lunatics, strong and in the prime of life, strolling about all day in pleasure grounds, each indulging in his own morbid thoughts, is, as may be imagined, a painful and depressing spectacle. Mere walking exercise, be it ever so regularly taken, has very little influence in counteracting these morbid manifestations. Indeed, walking exercise, daily and regularly taken within an Asylum grounds, possesses, in my opinion, very little value as a means of treatment of chronic able-bodied lunatics. In recent and acute cases, it may be of value as a means of restoring the bodily health, on which the mental condition so often depends. Useful employment in the open air is, of all kinds of exercise, the best. It requires no argument to prove that what is necessary to maintain the bodily and mental health of the sane, is the best means of improving that of the insane, and of bringing them more nearly into the condition of healthy persons. In this way can even incurable lunatics be brought into that state in which Asylum treatment is no longer necessary, and boarding out is found so beneficial both for the patient and the ratepayer. The facilities for this mode of treatment have, during the past year, been increased by the taking of the farm of Fernoch. Full advantage has been taken of this and other facilities granted by

the District Board, and the result is now beginning to be apparent in the state and habits especially of the male patients. Three years ago, only about 40 per cent of the men were employed, the remainder were treated as idle and incapable, and were walked about the grounds and the fields—the use of airing courts having been for some time previously abandoned. About two years ago it was seen that this aimless walking, although an improvement on confinement in airing courts, had not the improving effect on the idle patients that the farm and garden work had on the workers. Walking parties were therefore discontinued, and the practice of sending all to the fields was tried with the most beneficial results. With each working party two attendants were sent—one to direct the work, the other to look after the non-workers. It was now found practicable to send only one attendant with each party, which generally consists of from 6 to 15 men; the number of idle patients being so few that it may be said that every able-bodied patient engages in the work. This has been brought about by the influence of example and habit, than which nothing has greater influence on the insane and weak-minded. No difficulty is experienced with new cases coming into the Asylum. They fall at once into the system already in force. More difficulty is experienced with those transferred from Asylums where they have already acquired other habits, and with those of the present population who have been for many years the idle inmates of Asylums, and are disposed to look upon exertion as a hardship, and work as a thing to be avoided. There are at present 6, and occasionally 7, parties of men, and 2 of women, constantly employed on the farm and grounds. The proportion of men engaged in real work is 85 per cent."

The results of the system thus described is reported on in an extraordinarily favourable manner by the Scotch Commissioners in Lunacy, who evidently consider this as the *beau ideal* of an Asylum.

PROFESSOR GAIRDNER ON THE "LEGAL AND MEDICAL ASPECTS OF INSANITY CONTRASTED."

In his concluding "Lecture on Insanity," Dr. Gairdner took occasion to point out certain diversities between the medical and the legal views of unsound mind. Medicine looks upon insanity as a condition to be, if possible, cured. Law looks on it as a condition regulating the legality of certain procedures, the validity of certain documents, and the responsibility for certain acts. No legal or medical classification can be satisfactory which divides the population into two categories—the one sane and wholly responsible; the other insane and wholly too irresponsible. Nature does not draw the line after this fashion, and if language or law does so, it must be at the sacrifice of truth, and, in the end, of justice. Even among the confessedly insane there are some who are at one time irresponsible, and at another responsible in whole or in part, and the law admits this principle. Again, in ordinary criminal responsibility, the law admits a question of degrees of guilt, and, therefore, of punishment. The practical issue out of the requirements of the law, as it stands at present, has been that in such cases some juries, contrary to the ruling of the judge, have acquitted persons who were obviously criminals; while other juries have followed the ruling of the judge, and have returned a verdict against the prisoner in like circumstances, leaving it to the public to influence the Home Secretary, so as to secure an alteration of the sentence. Public opinion vibrates, in an almost incoherent manner, from one extreme to the other; but few authorities have maintained that it is *just*, no less than expedient, to consider even unsound minds as amenable to the law up to the degree of their actual or ascertainable moral responsibility. A full recognition of this is necessary to preserve the moral sense of the community from being shocked by the spectacle, on the one hand, of the execution of a lunatic by mistake, or, on the other hand, of a criminal escaping punishment by some shadowy plea of insanity. Let evidence be led in every case as to the real nature of the criminal act, and let the jury form their opinion. If they are satisfied that the crime was the act of a maniac, let them, as at present, acquit on the ground of insanity, giving in a verdict of "Not Guilty by reason of insanity." But let them have power also to return a verdict of "Guilty,

but of unsound mind"—such a finding being understood to carry with it a mitigation at least, in all cases, of the extreme penalty of the law. After this, let a subsequent decision be come to by the judge, or by some other tribunal, as to the modified punishment proper to the degree of guilt, so far as it can be ascertained under the peculiar circumstances of the case; and, if necessary, let the decision be open to further appeal if, after a period of confinement in expiation of sentence, further evidence arises tending to bring into question the essential justice of any part of the punishment. In this way, and in no other, Professor Gairdner believes, will the real and most important services to criminal administration be secured, without the manifold extravagances and contradictions which at present seem to render them a mockery and a delusion.

OBITUARY.

The Late Dr. Thurnam.

By the sudden death of this able and highly respected physician, on September 24th last, the Wilts County Asylum sustained a loss which will not be easily replaced.

Dr. Thurnam was born at Lingcroft, near York, on December 28th, 1810. As his parents belonged to the Society of Friends, his education was of a private character; but to the excellency of it, it may in justice be said, the pupil was a living testimony.

After passing through the required course of medical study, he became a Member of the Royal College of Surgeons of England in 1834. In the same year he was appointed the Resident Medical Officer of the Westminster Hospital, which office he held till 1838, when he was chosen as the Superintendent of the Retreat near York. In 1843 he became an L.R.C.P., and in 1846 M.D. of King's College, Aberdeen. That during the above periods he distinguished himself by the zeal and ability with which he cultivated various branches of medical science, there is ample proof. Amongst others may be cited the various published memoirs which he contributed on different pathological subjects, more especially those on partial and spontaneous aneurism of the heart, to the great merits of which all writers on cardiac diseases of that period, whether in this country or on the Continent, have borne testimony.

During his residence at the Retreat, he published in 1841 the "Statistics of the Retreat," and in 1843, "Observations on the Statistics and Treatment of Insanity." Of this latter work it was stated, at the time of its publication, that in its application of the numerical method to the subject of insanity, "we may appeal to Dr. Thurnam's work as an example of the interesting and novel results which may thus be deduced, and which, though they might be suggested by ordinary individual experience, are only capable of being established as facts by calculations founded on a large number of observations. Those only who, like ourselves, have been somewhat extensively engaged in statistical researches, will be able fully to appreciate the amount of labour and care which is required to insure the accuracy which throughout characterises Dr. Thurnam's work." Before referring further to the chief scene of his labours, we think it will not be out of place here to remark that, though he evinced so much assiduity in the pursuit of strictly medical subjects, it was by no means to the exclusion of other branches of scientific research. As a Fellow of the Society of Antiquaries, Dr. Thurnam, by his joint editorship of "Crania Britannica," his "Observations on British and Gaulish Skulls," and by various contributions to the different journals on allied subjects—by all these he had earned for himself no mean degree in the domain of archæology and antiquarian lore. In the Wilts Archæological Society, as a member of the council, he had in different ways rendered valuable service. In the annual excursions of the Society he was not unfrequently looked to as an expositor of the objects of interest which were being visited.

In 1849 he was selected by the magistrates of the County of Wilts as a suitable and proper person to whom to entrust the management of first establishing and afterwards superintending their asylum, which was opened for the reception of

patients in 1851. The ability manifested and the success which attended his labours in this important undertaking may be considered as having fully justified their choice. What evidence of painstaking diligence and high conscientiousness he had shown in the pursuit of medical science were the more manifestly developed in the discharge of the duties which he had thus undertaken. It is hardly doubtful whether in this aspect of his varied labours he did not belong to the "countless numbers" referred to by the Premier at the last meeting of the Medical Association, who "are true martyrs of humanity, exhausting themselves in a ceaseless unnoticed anxiety for those whose sufferings they seek to alleviate." It is well known to the writer that not only was Dr. Thurnam much respected as well as beloved by the poor patients in the midst of whom he spent so large a portion of his life, but in the difficult duty of governance his patience and tact in settling disputes which from time to time might occur won for him the title of the "peace-maker," or, as one of his *employés* recently expressed himself on the same subject, "he ought to have been a judge." His practice on such occasions was such as might well be followed by others under similar circumstances. He would allow each to state his case, and then appoint a time a few hours later, on that or the following day, when he would hear them more fully, and decide the point in hand, thus allowing time for the passions of each to subside. By these means, we have understood, he uniformly succeeded.

For some time previous to his death he had complained of headache and drowsiness, but which he hoped that change and rest would prove adequate to remove. Not having been able to effect his purpose, but expecting to do so shortly, he remained at his post to the last; and even on the morning on which he died he had been into the Asylum to attend to some sudden call of duty. Even his last words evinced the perfect possession of his faculties immediately previous to an apoplectic seizure which soon terminated his existence.

Dr. Thurnam has left a widow and three sons, with whom we know a large number of friends, both lay and professional, deeply sympathise. Of him it might be truly said that he died beloved and lamented. All those who worked with him and the patients (*i.e.*, those of the latter who were in a condition to comprehend what had occurred) evinced most sincere grief at their unexpected loss.—*Medical Times and Gazette.*

We have only to add to this brief memoir that Dr. Thurnam was twice President of the Medico-Psychological Association—once in 1841, and again in 1855; that he always took an active interest in its proceedings; and that to him, as a member of the Committee on Asylum Statistics, we are mainly indebted for the statistical tables which are now adopted in nearly every county asylum. In the *Journal of Mental Science* for April, 1866, will be found an important paper by him on "The Weight of the Human Brain, and on the Circumstances affecting it."

Appointments.

Burman, J. Wilkie, M.D., Deputy Medical Director, West Riding Asylum, Wakefield, has been appointed Medical Superintendent of the Wilts County Asylum, Devizes, *vice* Dr. Thurnam, deceased.

Dodsworth, G. H., M.R.C.S.E., has been appointed Assistant Medical Officer at the Bucks County Lunatic Asylum, Stoke, near Aylesbury.

Haggart, J., M.B., C.M., has been appointed Assistant Medical Officer to the Inverness District Lunatic Asylum, *vice* Pearson, resigned.

Levinge, E. G., A.B., M.B., L.R.C.S.I., has been appointed Assistant Medical Officer to the Borough Lunatic Asylum, Newcastle-upon-Tyne, *vice* Butler, resigned.

Mackenzie, G. H., M.B., C.M., has been appointed Assistant-Physician to the Fife and Kinross District Lunatic Asylum Cupar, N.B.

MERRICK, A. S., M.D., L.R.C.S.Ed., has been appointed Resident Medical Superintendent of the Donegal Lunatic Asylum, Letterkenny, *vice* Eames, appointed to the Cork District Lunatic Asylum.

STEWART, JAMES, B.A., L.R.C.P.Ed., L.R.C.S.I., ex-Surgeon, R.N., and late Deputy Medical Superintendent of the Cambridge County Asylum, has been appointed Second Assistant Medical Officer of the Kent County Asylum, Maidstone, *vice* Hughes, resigned.

TUKE, J. B., M.D., has been appointed Morisonian Lecturer on Insanity at the College of Physicians, Edinburgh.

WRIGHT, F., M.R.C.S.E., has been appointed Clinical Assistant at the West Riding Lunatic Asylum, Wakefield, *vice* Levinge, appointed Assistant Medical Officer to the Newcastle Borough Lunatic Asylum.

WOOD, THOMAS, M.R.C.S., has been appointed Third Assistant Medical Officer of the Kent County Asylum, Maidstone.

CORRESPONDENCE.

MATRONS IN LUNATIC ASYLUMS.

To the Editor of the Journal of Mental Science.

SIR,—On reading the review of the Asylum reports in the October number of the "Journal of Mental Science," I was somewhat surprised at the captious tone of the remarks on the report of the Matron of Hanwell Asylum as dealing with matters beyond her supposed sphere of duty, but it may be easily understood that a writer whose experience may have been limited to a Licensed House or a small Provincial Asylum with Matrons of the "Cook and Housekeeper" class cannot properly estimate the responsibilities devolving on the Matron of an Institution containing above 1100 female patients, and employing about 120 female officers and nurses, or the importance of the services of an educated and experienced lady; and I know that by none are the valuable services of the matron of Hanwell Asylum more highly appreciated than by the Medical Superintendents and staff of that Asylum.

In County Asylums the majority of the patients are females. Lunatics are increasing in number, and asylums are being continuously enlarged, and the growing importance of a higher order of female superintendents is obvious. Nowhere are the ministrations of a gentlewoman with tact and intelligence more valuable than in a Lunatic Asylum, and nowhere is male meddling more misplaced than when interfering with the employments and amusements of female patients, while the inconveniences resulting from the natural reluctance of females to confide their bodily ailments as well as their mental grief to a man are often very serious, whereas a matron possessing such qualifications as are indicated becomes the trusted friend of the patient and understands and soothes their waywardness. As regards the control and regulation of so large a staff of female officers and servants, the medical officers of Hanwell Asylum have too proper a sense of their professional status and authority to desire to intervene in the unavoidable jealousies and squabbles of the servants' hall.

All this may perhaps be admitted, but the grievous fact remains of a matron inditing a report of her department, and thereby assuming an official status and so approaching the awful supremacy of a medical superintendent. "As for her reading and writing, let that appear when there is no need of such vanity." Medical jealousy of female employment is well known, and redounds but little to the credit of a noble profession, which can well afford to give a fair field of peculiarly appropriate employment to women.

A VISITING JUSTICE OF HANWELL ASYLUM.

We willingly give insertion to this well-put plea for the nearly extinct species of lady asylum matrons. Theoretically the services of a lady matron may have all the value our correspondent attributes to them. If, however, he wishes to see a sketch

from life of the influence of the lady matron on the fortunes of the Hanwell Asylum, we would refer him to the last of Dr. Conolly's "Lectures on Lunatic Asylums" (p. 136), or to the concluding chapter of his later work "On the Treatment of the Insane." We extract from the later work, for the benefit of our correspondent, a sketch from life of the Hanwell Board Room, where to this day the vulgar jealousy of medical authority (as our correspondent unwittingly evinces in his letter) seems the predominant sentiment. "At the ordinary meetings of the committee (writes Dr. Conolly) the reports made by the medical officers scarcely receive the attention which their general importance should command, and they are sometimes treated as superfluous. A system, essentially vicious, by which reports are required from all the officers encourages counter-reports and contradictions which are mischievous. Not only is information sought for by the committee from the Chaplain, the steward, and farm bailiff, which may be necessary, but the assistant medical officers and the dispenser or apothecary, and the matron all make reports, and generally all make medical reports in which they are permitted to comment on the chief physician's report book, if there is a chief physician. Thus arise divisions and dissensions, which usually weaken the credit and disturb the peace of mind of them all. According to a well-ordered plan of government all the officers should report to a chief physician, and he alone in ordinary circumstances to the committee. One effect of these multiplied report-books is the introduction of unnecessary matter, and sometimes of trivial and of foolish details, leading to the loss of much time in mere desultory conversation unproductive of any good consequences whatever. A worse result is that sometimes, under sudden impulse, produced by a rash observation in some one or other of the minor reports, sudden determinations are arrived at by the committee without reference to the physician even when affecting some question which ought to be referred to him. He receives an official notification of these decrees with astonishment and mortification; but, fortunately, the resolutions passed so unreflectingly are often forgotten as soon as the impulse which occasioned them passes away, and are never acted upon."

We fear that the vicious system which has done so much harm to the Hanwell Asylum is still pleasing to the peculiar feelings which mark Middlesex magistrates alone among English magistrates.

To the Editors of the Journal of Mental Science.

GENTLEMEN,—At page 453 of the last number of the "Journal of Mental Science" the following sentence appears:—

"We are surprised to find it stated by one of the writers of these notes that the Sussex County Asylum was the first asylum in Great Britain in which chloral was used in the treatment of insanity. We always understood that any credit which might belong to the introducers of chloral into asylum practice was due to the Superintendent of the Devon Asylum."

If I am incorrect in believing that chloral was first used in this asylum, I hasten to declare my regret for the mis-statement. The matter can be very easily decided, as I can give the very day and hour on which the first dose was administered here. In our Case Book, vol. vi., occurs the following entry in the case of E. E.:—

"1869, November 21st.—She is extremely restless and troublesome to-day, and was so all night, beating her head about, trying to choke herself with her fist, &c. To have fifteen grains of chloral. 22nd.—She went to sleep almost immediately after taking the chloral at 10 30 a.m., and slept almost without intermission until 5 p.m., when she awoke quite calm, and remained so." That was the first time chloral was used in this Asylum.

At page 630 of the "Journal of Mental Science," for 1869, there is an account of a "Clinical Discussion on Chloral." Dr. Blandford asks if any member had yet used it in Insanity. *No one states that he has.* But Dr. Lockhart Robertson, who was in the chair, and was then Medical Superintendent of this Asylum, says that he had received a pamphlet from Professor W. Westphal, strongly recommending its use. This led us to believe that chloral had not yet been used in an English

asylum; and I am still in ignorance of the date of Dr. Saunders' first trial of it. Certainly at that time I knew nothing of his experiments. After the meeting, Dr. Robertson brought some of the drug from Messrs. Bell down with him, giving, I believe, 16s. an ounce for it; and passed it over to me to try on the first favourable case, which I did, with the result detailed above.

If Dr. Saunders used it before this date, I regret much that the statement, animadverted on by your reviewer, was made, and I desire to apologise to him.

II.—Your reviewer who with most praiseworthy impartiality finds something to adversely criticise in the report of nearly every English Superintendent, also takes me to task on another point, and is pleased to express his opinion that I treat the principle of non-restraint as a "sentiment," and in a way that should be avoided by "impartial men." Though the review is not signed, this sentiment is so alien to the traditions of the Journal, that I cannot believe it to be the judgment of the Editors. At any rate, I venture with all due deference, to express my extreme regret at such an opinion having been allowed to appear in its pages. Had the reviewer been confined in Old Bedlam or even at Hanwell before the appointment of Dr. Conolly, he would probably have found restraint something more than "a sentiment."

I am, Gentlemen,
Yours faithfully
S. W. D. WILLIAMS.

County Asylum, Haywards Heath,
12th November, 1873.

I.—Dr. Williams is right, so far as documents testify, in claiming for the Sussex Asylum the first use of chloral in an English Asylum. The first entries in the prescription book of the Devon Asylum are on the 8th December, although it is believed there that experiments were made before that date. At the meeting to which Dr. Williams refers, two members of the Association—Dr. L. Williams and Mr. Kesteven—gave the results of their experience of its use in delirium tremens. After reading the extract from the report of the Argyle Asylum, which will be found on a preceding page, we almost feel disposed to hope that someone will soon claim the credit of its disuse in asylums.

II.—The passage regarding restraint to which Dr. Williams refers is as follows:—"If packing in a wet sheet is a beneficial plan of treatment, what does it really matter whether it is called restraint or not. Sentiment in such questions should be avoided by impartial men." We fail to see that our reviewer has therein charged Dr. Williams with treating the principle of non-restraint as a sentiment. When Dr. Williams abandoned for a time a useful and efficacious means of treatment simply because the Commissioners insisted on calling it restraint, though he was sure it was not, he allowed a sentiment to stand between him and the good of his patients. And after a time he discovered that he had done so, for, as he says (p. 27), "Eventually . . . we abandoned our sentiments and returned to the packing." Does Dr. Williams think that he has abandoned the principle of non-restraint, now that he has returned to the packing?

Dr. WILKINS, Special Commissioner in Lunacy from California, who visited a large number of asylums in this country two years ago, writes to a member of the Association to say that copies of his report were sent to the Superintendents of all the asylums he visited. We fear these reports have in the majority of instances not reached their destinations.

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