

PART IV.—NOTES AND NEWS.

Medico-Psychological Association.

A quarterly meeting of this Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on Tuesday, the 10th June.

Present:—Professor W. T. Gairdner, Drs. J. Batty Tuke, Macintosh, Ireland, Alexander Robertson, Fred. Skae, H. Strothill Wright, Coates, and McGill.

Dr. J. BATTY TUKE occupied the chair.

The SECRETARY (Dr. SKAE) read the minutes of the last quarterly meeting, which were approved of. He also read apologies for absence from Sir James Coxe, President of the Association, Drs. Clouston and Howden.

Professor GAIRDNER showed a case of *Athetosis*. He said—I am afraid I must presume that for practical purposes the name *Athetosis* is not known to certain members of this Association. It may be, or it may not be; but it so happens that I have had communication within the last few days with one of the most distinguished students of nervous disease in this country, and, on asking him if he had seen any cases of *Athetosis*, his answer was, "What is *Athetosis*?" I am not, therefore, I think, assuming too much in supposing there may be members of the Association who do not know what it is. In fact, it is a name applied by Dr. Hammond to a peculiar condition, which, when I read his description, appeared to me to be new to myself, with the one doubtful exception of a case that I saw many years ago; and, therefore, I have no doubt that the subject will be quite new to a great many persons of a like amount of experience, or, perhaps, even of much greater experience. Through the kindness of Dr. Forrest, a former pupil and a most distinguished graduate of this University, I was introduced to the case now before us, and was at once led to regard it not only as an example of a rare disease, but as a case of *Athetosis*, differing, however, in some particulars from both the cases which Dr. Hammond has recorded. Being applied to by your Secretary for something of a clinical kind as a contribution to your proceedings to-day, I thought I might, perhaps, be allowed (in default of better) to bring this case before the Association; although I must admit that it does not appear to lie strictly within the province of the Medico-Psychological Association, as a case of mental disorder. This disease has been, as we shall find presently, in more than one instance associated with distinctly cerebral symptoms; its natural alliances, moreover, are with those spasms which probably take origin in lesions of the corpus striatum, or other intracranial centre; at all events, it is, undeniably, a very curious instance of nervous disease. I may preface my remarks on this individual case by a brief reference to Dr. Hammond's chapter on the disease. He says:—

"Under the name of *Athetosis* (*Aθεροσ*, without fixed position), I propose to describe an affection characterised by an inability to retain the fingers and toes in any position they may be placed, and by their continual motion." You will see that in the boy now before us this characteristic is present, and further, that the movements of his fingers are not at all like the clonic, jerking spasms of chorea; but rather like a peculiar modification of the rigidity that often attends hemiplegic lesions, only with this great difference again, that the rigidity here is not permanent and fixed, but ever-varying; passing from flexors to extensors, from promoters to supinators, in such a way as to involve successively all the muscles of the hands and forearm, individually, or in groups; whereby the affected member is not only made useless for practical purposes, not answering, except with great difficulty, and to a very limited extent, the demands of the will upon it, but it is also practically uncontrollable by the will, in respect that it cannot be voluntarily kept, even for a moment, in a state of rest. Hence the name of *Athetosis*, though by no means very descriptive of this affection, is quite characteristic of it as opposed to every kind of paralytic rigidity. It is, in fact, something quite different from, and yet having points of comparison with, chorea, tetanus, epileptoid spasms, and still more strikingly, perhaps, resembling, and yet widely differing from, most of the strange varieties of disease which have been described under the names of *tremor cocclus*, *paralysis agitans*, *eclampsia nutans*, and even the so-called writer's cramp; there is not one of these with which this affection can be confounded for more than a moment, and yet the differences can only be fully appreciated by an observer who has studied them all in succession. Dr. Hammond records two cases. In one of these the patient, *set.* 33, was of intemperate habits, and had frequently had

epileptic paroxysms; the commencement of *athetosis* seemed to coincide with the subsidence of an attack of prolonged cerebral disorder with unconsciousness, arising out of *delirium tremens*, and followed by appreciable impairment of the memory and intellect. In the other case (a farmer, *æt.* 39) there was an inherited tubercular taint on the mother's side, and the father and paternal grandfather were free drinkers of ardent spirits; this patient also had had attacks, if not of epilepsy, at least of vertigo and loss of consciousness; he had also been aphasic, and was still under the influence of some slighter forms of disturbance of the articulation, vertigo, and other distinctly cerebral symptoms, when brought under Dr. Hammond's observation.

In both Dr. Hammond's cases, therefore, you may see that the cerebral antecedents were quite unequivocal, that in both cases the patients were at an age at which insanity is not uncommon. Almost all, if not all, of these circumstances, are absent in this boy. The affection is practically confined to the right upper and lower extremities, and it is much more distinct in the upper than in the lower limb. It cannot be affirmed with certainty that there were any cerebral antecedents at all, and the only thing observed by the boy's mother which would bear this construction is that she "thinks she has noticed a little twisting of the face to the right side at times." This has not been observed by me, and although it is difficult to be too positive, I am inclined to think that the patient is quite up to average as regards intelligence, and as regards most of the strictly cerebral functions. The disease cannot, so far as known, be referred to any bad habit as its cause. The general health, though not robust, is not very bad, and there is no distinct symptom of any constitutional disease. The muscles of the affected limbs, so far from being developed in size by their abnormal activity (as in Hammond's cases), are, if anything, rather smaller than those of the sound side. It is rather remarkable that this should be so, because you will observe that the extremely forcible contractions perpetually going on have obviously influenced the shape of the hand, and have brought about a quite abnormal mobility of the fingers in the backward direction, just as the muscles of a gymnast may be trained in early life, so as to give an abnormal suppleness to every joint in the body. From the complicated character and perpetual variations in these abnormal movements in this case, it is difficult to describe them accurately. Almost every conceivable movement may be observed at one time or another, and each movement as it occurs is extreme and involuntary; in short, is of the nature of a tonic spasm, as much as in tetanus, only there is absolutely no pain. It takes a good while to see all the phases of this disease. Sometimes the wrist is strongly flexed, and at other times it is strongly extended, and very often the fingers are in precisely the opposite position to the wrist; sometimes individual fingers are flexed, while others are extended, and all more or less rigid. There is one point about the disease which I think is very interesting. I don't think that you can say that any individual muscle is wholly withdrawn from the action of the will. You will find that under favourable circumstances he can, to a certain limited extent, control every individual muscle of his arm, but when the rigidity or spasm comes particular groups are for the time being wholly withdrawn from the will, or very nearly so. There is no paralysis, properly speaking, and equally little are there any of the jerky movements of chorea. The presence of the spasms is to some extent influenced by the attention. If he is quite still and occupied with something else the abnormal movements diminish, but they scarcely ever cease, except in sleep, or perhaps when he is deeply engaged in reading, or absolutely at rest. By using a certain amount of force you can always overcome the spasm, as you see me now do, in opening successively the fingers of the closed palm; and it is done without pain or difficulty; but an attempt so to overcome the spasm in one group of muscles is very apt just to set it off in the opposite direction. Although this is (as I have already admitted) scarcely a psychological case, it appears to me to present a kind of corporeal type or counterpart of a whole group of mental disorders, where, owing to the influence of disease, or, as we call it, of insanity, particular acts of the mind, emotions, affections, thoughts, as the case may be, are in a practical sense involuntary, *i.e.*, withdrawn from the practical control of the will, although in another and more absolute sense the will remains free; indeed, you may say that at almost any moment the will is capable of exercising a certain amount of control over almost every individual act, as here over the movement of each individual movement; and yet for all that there is not a single act or movement within the diseased area that can be normally performed, or normally controlled. Chorea has been aptly called an "insanity of the muscles," and the term is not less applicable to this disease; I should call it, further, a case of incont-

able muscular impulse without paralysis, and without permanent spasm or rigidity. It is a kind of *quasi* rhythmic spasm, somewhat resembling the peristaltic movements of the involuntary muscles in the alternating or successive affection of groups of muscles. I have seen one ~~other case~~ of athetosis since Dr. Hammond's description of it; and looking backwards, I think I can find one case, but only one, in my previous experience. Here is a drawing I got done a number of years ago, of a patient in the Edinburgh Royal Infirmary. I think you will at once recognise the resemblance. I was much interested and not a little puzzled; had a drawing made, and afterwards got it lithographed, and then neglected to publish the case on the ground of the extremely anomalous character of the affection, and my inability to connect it with any other case, and even to form a distinct notion of the disease in my own mind. On reflection, I think it must have been a case in some respects very similar to the one now before us, although, to a certain extent, different. At that time I consulted most of the standard works, but could find nothing at all corresponding to what I observed. The patient, a young man, died soon after of pericarditis, with suppuration of the mediastinal glands; but a careful examination threw no further light upon the nature of the nervous affection.

Dr. IRELAND—I once saw a case of an imbecile boy in Carscube Road, which perhaps might amount to a modified case of athetosis. I dare say you could lay hold of the boy yet. He is in Glasgow.

Dr. SKAE—Dr. Howden, of Montrose, showed me in his asylum a case of athetosis. It is not so remarkable as this one.

Dr. GAIRDNER—Do the two cases strike you—having seen them—as being of the same order?

Dr. SKAE—No. There is not the same continual movement.

Dr. ROBERTSON—This is certainly a very rare form of disease. I do not remember having seen a case quite similar. The nearest approach to it occurred in a man about sixty, who had been several times under my observation. In him the motor symptoms resemble those we have just seen in this boy somewhat closely. He has suffered from the disorder for many years. With respect to its pathology, as Dr. Gairdner has said, in some respects it is like chorea, though it is distinctly different. Not improbably the seat of both disorders is in the same part of the brain. This, in regard to chorea, as Dr. Hughling Jackson suggests, is probably the Corpus Striatum, and neighbouring convolutions. There is no evidence of disease of the heart in the case before us. It was therefore probably not caused by embolism of the vessels supplying the parts of the brain just mentioned, which Dr. Jackson holds to be by far the most common cause of chorea.

The CHAIRMAN—I am sure the Society are under a debt of obligation to Dr. Gairdner. He says the case is hardly fitted for our Psychological Association, but I think it is, for if it is not insanity of the mind, it is insanity of the muscles. It has not been noticed yet, I believe, in Scotland, but two cases have occurred in London. It is very interesting, as Dr. Gairdner says, owing to its difference from Dr. Hammond's recorded cases.

Dr. GAIRDNER—Everything I have seen about this boy, as yet, shows that he is sound in mind, and tolerably sound also in body. We made faithful trial of electricity in all its forms, but it does not seem to have done any good. I rather think I gave him arsenic too, and tried carefully regulated exercise for several weeks in the Infirmary, and there has been no decided influence on the disease. I have only to say further that I should be glad to receive any hint as to the treatment of the case. It is an extremely disabling disease, being in the right hand especially, and his mother is very anxious about him of course.

Dr. IRELAND read "*Notes of a Case of Idiocy, with Synostosis of the Sutures and Deformity of the Base of the Skull.*"

The CHAIRMAN—I am sure we are all obliged to Dr. Ireland for his exceedingly careful paper. It is such papers as this that do the real good in the elucidation of such diseases as are comprised under the general terms, insanity and idio-y. Carefully recorded facts do a great deal more than the generalisation on a great number of cases imperfectly recorded and considered.

Dr. ROBERTSON—The symptoms would seem to indicate that the development of the brain was checked in infancy. The sutures might, consequently, close earlier than usual, and the skull accommodate itself to the small organ within. In illustration of this accommodating disposition of the skull in early childhood, I would remind you of one of the specimens I showed at the last Glasgow Meeting of the Association. In it there was marked atrophy of one hemisphere of the brain, and the skull on that side was much hypertrophied, this abnormal growth being

obviously of a compensatory nature. In connection with the development of the brain, I may mention that I have seen several cases of atrophy of one hemisphere, but in none of them have I observed any apparent hypertrophy of the other one. About six years ago I examined a case in which there was decided atrophy of the left hemisphere. The patient had been aphasic and hemiplegic for twenty years, but was fairly intelligent. I asked Professors Allan Thomson and Young of this city, to be so good as to state their opinion on the point referred to. They both agreed with me in thinking that there was no unusual complexity of the convolutions of the right hemisphere, nor other indication of compensating hypertrophy on that side. Perhaps some of the members present may have had experience of similar cases.

Professor GAIRDNER then opened a discussion on the question, "*In what Sense, and under what Limitations, can Insanity be regarded as a Disease of the Body?*"

We can only give a brief abstract of Professor Gairdner's remarks in introducing the discussion, leaving their purport, so far as not here stated, to be gathered from the discussion itself and from his reply. He said that the idea of introducing the subject arose in his mind from some incidental remarks made at the last meeting in Glasgow, which were very imperfectly, and indeed unintelligibly, reported in the Journal. *Apropos* of a case of tumour of the brain, Dr. Gairdner had said that physicians practising in asylums were apt to draw fallacious inferences from the fact of the coincidence of such lesions with disorders of the mind in particular cases, and that this followed almost necessarily from the fact that their field of experience excluded all the far more numerous instances in which similar organic changes occurred without anything that could be rightly called insanity. It had grown to be a kind of *dogma* of late years that insanity is simply a disease of the brain, and this dogma, like all other dogmas, when once formulated and affirmed with a certain amount of conviction, tended to distort the evidence on which it professed to be founded; a most notable proof of this fallacy being the popular, and in a certain sense also medical, use of the term "softening of the brain," as a vague general term for almost all kinds of chronic insanity,* with just as much and as little reason as is, or was, implied some years ago in referring all manner of digestive disorders that were not clearly understood to the liver. In consequence of this loose way of arguing in a circle from insanity to softening, and then again from softening to insanity, an odd conflict of evidence arose some years ago in a court of justice. An old man died, it was alleged, of "softening of the brain," this being, in fact, the technical name under which his fatal disease, apoplexy, was with quite probable accuracy registered by his ordinary medical attendant; and it was further alleged that many years before this he had suffered an attack of "sunstroke" in Africa. Upon these two alleged facts was built up a hypothesis of insanity, commencing with the sunstroke, and ending in "softening of the brain," which, aided by a vast quantity of local gossip, and medical evidence chiefly relating thereto, was so convincing to the jury as to lead them to concur, unanimously, in reducing a will framed three years before death, evidently with great care and forethought, and on the basis of holograph instructions that were unquestionably shown to be the spontaneous act of the testator, and the cherished idea of half a lifetime. The verdict was appealed against as contrary to evidence, and a new trial ordered, and it was then proved to the satisfaction of another jury, which with equal unanimity sustained the will—first, that the alleged sunstroke had never had any existence; and, secondly, that the "softening of the brain" carried no such significance as had been attributed to it inferentially in the first trial, and indeed that it, too, was not at all a positive fact observed, but a mere presumption founded on the mode of death.

In dealing with the question announced for remark, Dr. Gairdner said it was essentially the same question and surrounded with the same difficulties and perplexities, as were found to environ everywhere the attempt to distinguish between functional and structural disease. All that can be definitely and positively affirmed is that there are cases of mental disorder where a structural lesion, or some chemical change affecting the blood or the tissues, can be demonstrated as an apparent cause of mental derangement; and others, again, where no such changes can be proved. Further, there are some cases where the structural lesion, when present, may be reasonably inferred to have a distinctly causal relation to the symptoms, and others again where, given a structural change, no such causal relation can be legitimately

* "I seldom tell the friends of the patient," a fashionable alienist once said to us, "that the man is insane. I say he has softening of the brain; it saves the feelings." "Journal of Mental Science" for January, 1862, p. 597.

inferred, inasmuch as in numerous cases, not necessarily of insanity, like changes are found to occur with symptoms wholly dissimilar in kind. All beyond this is involved in the same mystery and perplexity that surrounds the essential nature of the association of the mind with its organ, or indeed of function with structure in the case of any organ.

The difficulty is, therefore, not peculiar to the case of mental pathology, though it is in that region that it comes most evidently into contact or collision with beliefs involving important practical consequences. Furthermore, it is not a real solution, but only an evasion, of the difficulty, to postulate as a proved fact the dependence of insanity upon bodily disease. The fact is not proved; the difficulty, therefore, remains as before.

In one sense, indeed, it may be assumed as indefinitely probable that structural changes *always accompany*, even if they do not *always cause*, insanity. For it is as nearly certain as any profound, almost transcendental, truth can be, that function and structure, however associated in their essences, cannot be separated in their pathology any more than in their physiology. As we have reason to know that *every functional change whatever*—the contraction of a single muscular fibre, the secretion of a single drop of urine, and in like manner the functional activity of every nerve-ganglion or nerve-conductor—*involves a certain change in the structure of the parts thus actively engaged*, it does not seem too much to infer that thought, sensation, emotion, will, are in like manner accompanied by structural changes in the organ through which they are manifested; and this without the slightest prejudice as to any ultimate theory of mind, and the mode of its association with the bodily organ. It seems, from this point of view, extremely probable, if not demonstrably certain, that no case of mental derangement is unaccompanied by changes (probably exquisitely and infinitesimally minute in some cases) either in the structure or in the chemistry of the brain and nerves. And perhaps it may seem, from the practical point of view, idle to discuss the question whether, in apparent derangements of the mind, it is the mind first, or the body first, that is disordered. In many, or most, cases indeed we cannot know—we grasp only the end-links in the chain of cause and effect, and no mere observation of casual alterations in the tissue of the brain will justify the conclusion that these have been really the cause of the earliest symptoms.

As a question of simple observation, then, it is impossible to found a purely *somatic* pathology of mental derangement in general upon what we know of the morbid anatomy and chemistry of the insane brain, or blood.

On the other hand, it is unquestionable that some, especially of the more acute and (so to speak) explosive kinds of insanity—the paroxysms of general mania and of acute delirium—have analogies so close and suggestive with the more obviously somatic forms of delirium, determined by blood-poisoning (alcohol, haschish, and probably typhus poison, &c.), that it is much easier to conceive of these as arising from the bodily state than to suppose the latter to be determined by the former. But even in these cases the acute attack of insanity is often only the incidental paroxysm of a permanently abnormal state, and the question of the physical origin of this is as difficult and as remote from direct observation as ever.

Conversely, there are cases of insanity so obviously growing out of the long and continuous action of moral causes, aggravated in some instances by physical complications, or by the sudden disturbing influence of overwhelming emotions, grief, terror, political and religious excitement, love, even sudden fashions, and the power of simple association acting upon ignorant multitudes (dancing-maniac, child-pilgrimages, witch-sabbaths, &c., &c.); that it seems impossible to doubt the competency of psychical causes, under certain combinations, to determine mental derangement. And if we carry out the inferences derived from these more typical cases into the still ample realm of the less known groups of disease commonly confounded under the various names of monomania, melancholia, hysteria, morbidly developed emotion of various kinds (often, no doubt, associated with more or less obvious bodily disease), we shall find it quite reasonable to suppose that in many of these cases, the starting-point may be, as it often seems to be, an *abnormal mode of activity of the mind itself*—a prevailing sentiment; an habitual emotion; a strong prejudice in favour of, or against, an individual; a settled opinion, a rooted feeling of love, hate, jealousy, ambition, so nursed and indulged as to dominate over the whole moral nature, and to control, practically, the freedom of the will, and even the reason.

In such cases, not only may delusions follow, and the whole phenomena of insanity in its most developed forms; but even when the morbid changes fall far short of

this, the psychical disorder will inevitably, as we have seen, become associated with corresponding changes in the physical organisation, and these, infinitesimal at first, will go on deepening, and being confirmed by time, the wear and tear of the nervous system being in accordance, so to speak, with abnormal instead of normal, modes of activity; so that in the end it cannot be surprising that these changes should be found practically irremediable; the very channels of nervous influence, and the ganglia, through which its storage and discharge are effected, becoming permanently diseased and disabled for normal activity, in accordance with the laws of textural nutrition underlying both pathology and physiology.

And, to conclude, it is in strict accordance with all we know of the hereditary transmission of the physical instincts, along with that of the structures conformed to them, that *such changes, even when thus acquired, may become hereditary*; so that vicious habits and unsound propensities, in the first instance implanted by accident or by training, may, *when confirmed by habit into instincts*, be transmitted so as to vitiate a whole race, just as acquired beneficial habits or instincts are known to be transmitted, *e. g.*, in the case of the shepherd's dog, the pointer, &c., or even indifferent habits, as in the case of those *tricks* of manner which are well known as occasionally passing from a parent to his offspring, or even his grandchildren, under circumstances wholly precluding the possibility of direct imitation.*

The CHAIRMAN—I very much regret that there are not more present to-day to discuss a subject which seems to me to implicate to a very considerable extent the status of psychiatric medicine. I am quite unprepared to reply to Dr. Gairdner, still cannot refrain from making a few remarks. It strikes me that Dr. Gairdner advocates to some extent the belief of the existence of mind apart from body; if so, I hardly see how to join issue with him, for we have no common ground for combat. But I can hardly believe that he does not admit that every operation of the mind is manifested through the brain, and that every manifestation is accompanied by and results in a certain change of tissue, whether chemical or molecular. For my own part I cannot imagine the existence of an insane mind in a sane body. I think an appeal might be fairly made in support of this proposition to those of the profession who treat the great mass of mental disease—I mean the general practitioner and the physician, not the medico-psychologist. Whilst that word is on the tip of my tongue, I should like to say that it is to my mind the most miserable of the many miserable euphemisms which exist in our speciality. I would ask the general practitioner and physician how many diseases they meet with in their everyday practice in which there is not to a certain extent a mental condition different from the normal mental condition of the patient. The various diseases comprised under the generic term of dyspepsia, diseases of the liver, kidneys, and spleen, fevers, pregnancy, and the puerperal condition, and surgical diseases, more especially those of the rectum and bladder, are rarely, if ever, unaccompanied by impairment or perversion of the intellectual powers, or of the moral condition of the patient. Does the physician, the obstetrician, or surgeon apply his remedies to the $\psi\upsilon\chi\eta$? Does he administer articles of the pharmacopeia to the immaterial? No. He attacks the mental symptoms through the body, and in so doing he is potentially a materialist in theory and in practice. If, then, we find that the great mass of mental aberration is the manifest result of bodily aberration, we have a foundation for the hypothesis that the graver forms of mental disorders which come under the notice of alienists are likewise due to a somatic change, whether that change be primary or sympathetic. It does not appear to me more difficult to understand the hereditariness of an evil cerebral condition, intellectual or moral, than of hare-lip or cleft palate. I would also appeal to pathology to confirm my position. In my own experience I have submitted 100 brains of insane persons to microscopic examination, and have never yet failed in demonstrating a marked departure from health in each and all of them. It is true, all these were more or less chronic cases, and it may be said that the lesions were the result of perverted function. But the morbid change must have commenced at some time, and if the evolution of function is produced by change of tissue, why should we not believe that it accompanied or preceded the symptoms? In traumatic insanities we cannot doubt the sequence of cause and effect; why should we doubt the power of strong moral shock or loss of sleep, which we know are accompanied by considerable vascular changes, to produce permanent structural abnormalities in the delicate organisation

* Darwin—"Expression of the Emotions," p. 33, note. Carpenter—"On the Hereditary Transmission of acquired psychical habits." "Contemporary Review," January and April, 1873.

of the brain. It implies simply an admission that our present appliances are not so perfect as to detect the initial processes of disease. I freely admit, we are not yet able to lay our finger on any lesion, and say that it produces certain symptoms, but nervous pathology is yet in its infancy, and again ignorance must be pleaded. There is a circumstance in comparative anatomy which appears to me to bear upon this point. It is much easier to demonstrate the structure of the brain in the lower animals than in man; it is easier to demonstrate it in young animals, high or low, than in older ones. Now, may not the reason of this be that the work of the human brain is of a much more complex nature than that of the beast, and, consequently, that the loss and repair of tissue necessary for its performance leaves indications of greater activity, of greater wear and tear. I would only add that I cannot admit the tendency of the materialistic view to lump insanity as suggested by Prof. Gairdner; on the contrary, its tendency seems quite the reverse, for it leads to the investigation of causes and results, the process by which the mysteries of other forms of disease have been disclosed. I am quite content to lie under the accusation of being a materialist in this matter, for the employment of this mode of enquiry need implicate no man's religious belief, and further, every physician must in the exercise of his medical functions be potentially a materialist.

Dr. IRELAND regretted that more members had not come to listen to the views of Dr. Gairdner. He thought that a discussion of this kind might become an interesting part of their meetings. Dr. Gairdner left out of consideration what he called the two hypotheses—that mental activity was a function of the brain, or that there was an immaterial entity different from the brain, and which might exist without it. He did not think we could clearly discuss the question unless we knew the views a man held on this subject. He believed that there is an immaterial entity independent of the brain, for he could not conceive of thought being carried on by so much albumen, cerebrie acid, and phosphorus. It was a common assumption that the immaterial mind could never be affected by insanity; but this could not be proved. We know from experience that our minds can become distracted by passion, by false reasoning, and strange desires. Experience shewed that men might be subjected to painful emotions from which they could not escape, or that they might yield to vicious passions till these mental conditions ended in insanity. It might be answered that there was always a constitutional tendency in such cases for the brain to become diseased from the influence of these emotions; but unless it could be shown that this tendency was very powerful, so as to manifest itself under common exciting causes, it would be absurd to deny the great power mental emotions have in producing insanity. The speaker quoted Hecker's "Epidemics of the Middle Ages" as a proof of the power of mental influences in producing mental derangement, and the observations of German microscopists upon fatty granules and granular cells as a proof that lesions which were at first believed to be the causes of insanity might turn out to be merely its results. In reply to Dr. Tuke, who argued that it was unreasonable to talk of a man treating insanity medicinally, unless it were an accidental matter, Dr. Ireland remarked that no one was holding that the mind was not closely connected with the brain, and that the great improvement in the treatment of insanity did not consist in acting upon the body with hellebore or douches, or other material methods, but in introducing new methods of mental and moral treatment, and that some pronounced materialists were remarkable by the great stress they laid upon this psychical method of cure.

Dr. ROBERTSON—The connection between insanity and a disordered brain has been so generally admitted that the very title of Dr. Gairdner's communication is startling. And yet he has shown there are good grounds for putting the question; for it has not been established, in fact it is impossible to show, that a disordered condition of the brain exists in all cases of insanity; and often, even where it is present, that it is at all sufficient to account for the amount of insanity in the case. Notwithstanding our inability to establish the existence of this association in a certain number of cases, I must say it is my conviction that insanity is always directly due to cerebral disturbance. Of course that is not opposed to the idea advanced by Dr. Gairdner as to the origin of insanity. According to him its origin may be mental, and afterwards this mental disorder may act upon the nervous tissue inducing disease. But when insanity is fully declared, I certainly think, as I have said, that the brain itself is involved. If, upon a *post-mortem* examination of an insane person, we do not find evidences of disease, the probability is that this is due to an imperfect examination, or if the examination has been sufficiently complete, it may be that the instruments we employ are not sufficiently refined to detect those minute changes in the cerebral substance which may prevent the healthy exercise

of the mental powers. But though this is my conviction, and is also, I believe, the conviction of almost all medico-psychologists, it must be admitted that the universal dependence of insanity on brain disorder has not been demonstrated. While that is so, we need not feel surprised if it should be considered by some psychologists that certain cases may be accounted for on the old spiritualistic idea that it is a disorder of the mind, independently of its organ—the brain. I shall not now attempt to go into the question at all fully, and conclude my observations by thanking Dr. Gairdner for his very lucid exposition of a difficult subject.

Dr. SKAE—I would not have ventured to speak on the subject without a very great deal of preparation were it not that there are so very few of us here, and that it is desirable we should all have a shot at it. I listened with great interest to Dr. Gairdner's exposition of his view of this question, for it is always a downright pleasure to listen to Dr. Gairdner, even when one thinks him in the wrong; but I must say, I do not even yet understand clearly what his position is. He sometimes talked of the mind itself, leaving one to suppose that he believed in the two entities, as Dr. Ireland does; and at other times he talked as though the mind were a function of the body. I must say I don't think you can discuss the question which he has raised, unless you adhere to one or other of these opinions. When I look at the question as it is in the printed notice, I cannot exactly understand whether Dr. Gairdner means that the question is this—"Is insanity sometimes only a functional disease, or is it always an organic disease?" or—"Is insanity sometimes a disease of the mind—an immaterial entity—and sometimes a disease of the body?" I entirely agree with what Dr. Tuke has said. The whole question is summed up in the expression he made use of—"Can you have an insane mind in a sane body?" We must all admit that we hold our existence in this physical world by physical means. If you have no body you have no mind. You have your body in a certain condition, and your mind in a certain consequent condition, and any alteration of the mind must be accompanied by an alteration in the body. The same cause will always produce the same effect—that is to say a different state of mind—if you have a different effect you must have a different physical basis or cause for it. I don't think the argument Dr. Ireland made use of about false reasoning bears on the subject at all. Correct reasoning is carried out by a healthy brain, and it is quite natural also to suppose that incorrect reasoning may be carried out by a weak, disordered, or diseased brain. To argue for a spiritual disease apart from a bodily one, is as much at variance with our present knowledge of pathology as it is to talk of epileptics being possessed with devils. You cannot rest your proofs on pathology at all. You may have the most reckless notions of a general paralytic without any demonstrable brain disease, and you may have a great deal of brain disease, as Dr. Gairdner said, without any demonstrable insanity at all. I think to discuss the question you must revert to the larger one of whether or not mind is a function of the body; and, of course, if you admit that a healthy mind is a function of a healthy body, you will admit that an unhealthy mind is a function of an unhealthy body.

Dr. GAIRDNER—It would have been impossible for me to have supposed when I saw the small meeting, that my suggestions should have brought out so valuable reasoning. At the same time I feel the difficulty of replying, because the farther you go into these matters the more you seem to yourself to be getting into discussions like those that occupied the great scholastic doctors of the middle ages—discussions that really tend to no practical result, and that are as capable of being argued eternally on the one side as on the other. I quite agree with Dr. Skae that the argument reduces itself in the end to the fundamental question of what is the actual mode of association of the mind and the body, and as this is wrapped in profound mystery we are always apt to lose ourselves in a mist of words. But nothing shows the almost intangible character of the differences arising in this discussion more than the excellent remark of Dr. Tuke, that he could not conceive of an insane mind in a sane body. I agree with him entirely. The very object of my remarks was to show that wherever the abnormal condition may be conceived to begin in any case of so-called mental disease, it must touch both function and structure. You cannot separate the two. I think we are bound to admit that, speaking from the physiological point of view, function and structure are absolutely and indissolubly associated. I quite agree with Dr. Tuke that it is impossible to have an insane mind in a sane body; and further, the more the insanity of the mind becomes chronic, the more habitual it is, the more multiplied the departures it takes from the standard of sanity—so much the more inconceivable does it be-

come that we should have an insane mind in a sane body. But to show how this touches on the impalpable, I will push it a step further. I cannot conceive of a passionate or wrathful mind in a perfectly normal body. I cannot conceive of a lustful mind in a perfectly sane body. I cannot conceive of a mind, which for any length of time, or even from any temporary cause, has become the slave of any bad passion, or vicious indulgence, or, indeed, that is subject to any kind of abnormal manifestation whatever, as being associated with a brain that is utterly and absolutely normal; because I think the very fact of an abnormal manifestation disturbs the normal physical constitution of the organ. Therefore there is no real dispute as to the fact of bodily implication in mental unsoundness, and the question is what is the most proper way of stating the fact—the way that will comprehend the greatest amount of truth, and exclude, to the uttermost, fallacy and error in stating an admitted general principle. I am of opinion that the now popular way of speaking of insanity as if it were a structural disease of the brain—just as pneumonia is a structural disease of the lung—has led to errors and fallacies of observation, and in some instances to great confusion of thought, and assertions not founded on observation at all, as I have endeavoured to show in my introductory remarks. Then there is another aspect of the subject that I think is not unimportant. Dr. Skae says quite correctly that this question leads up to the metaphysical question. I was willing to argue it on a less abstract ground; but if I am pressed to declare my opinion, I will say, “Yes, I must acknowledge mind as conceivably separated from body—at least from any particular body with which it is at present associated.” That may seem to be unpractical from the medical point of view, but it is not unpractical when you consider that every bad habit arising in the mind, every abnormal mode of its activity, every passion indulged, every strong rebellious habit nourished up so as to become an overmastering power in the soul, is, or may be, actually creating disease—gradually and slowly developing insanity, and with it those changes in the physical structure, which, I believe, in many cases are secondary, and which when confirmed so as to become a permanent portion of the individual organisation, may, I believe, be transmitted by inheritance. I think it important that the public and the medical profession should appreciate fully the powerful influences that a man’s moral control has over himself to prevent and modify the occurrence of insanity in many cases. A little book was written some years ago on “Man’s power over himself to control insanity.” It is a subject, I think, very interesting. As Dr. Ireland has very properly said, the whole discipline of our asylums in the past, and the change to everything that is good in the modern treatment of insanity—everything in which it differs from the old harsh methods of hellebore, stripes, and chains, is, in fact, an appeal from physical to moral agencies; a recognition of the fact that even the insane mind, can, within certain limits, be controlled by moral and spiritual forces; that although obstructed and impaired in its action, it is still essentially *mind*, and subject, therefore, to the laws of spirit as well as those of matter.

The CHAIRMAN—The very least we can do is to thank Dr. Gairdner for having initiated the discussion. A discussion like this is far better than reading papers. We are under a deep debt of gratitude to Professor Gairdner for having come forward thus prominently and assisted us in this matter, and I trust he will accept our thanks as cordially as they are given by us.

Some interesting microscopic sections, illustrating the pathology of the brain, were exhibited by the Chairman.

A vote of thanks was accorded to the Faculty of Physicians and Surgeons for the use of the Hall; and on the motion of Dr. ROBERTSON, a vote of thanks was given to the Chairman, and the meeting separated.

Asylum Management.

It may be taken for granted that before very long there will be a change of some kind or other in the local administration of our counties. The English Justice of the Peace is confessedly an anomalous being. He is a Government official in so far as he has his commission from the Crown, but the fact of his being unpaid of itself makes him something wholly different from the paid servants of the Crown at home or abroad. On the other hand, the fact that he has his commission from the Crown makes him something wholly different from those officers, at home or abroad, whose authority springs from popular election. He cannot stand according to either the French principle or the Swiss principle.