Before bringing the question before the profession, I should have preferred to wait and introduce it in a more complete way; but when I found I had to address you, I selected the subject which was engrossing my attention, and which I was sure would be most interesting to you. In addition, my experience of the method, although not great, extending only over a period of three months, was sufficient to enable me to give you an idea of its value and of its relative innocuousness, and to warrant me in asking you to assist in determining its capabilities and its place (which I expect will be a high one) in the ophthalmic surgery of the future. To summarise, it shortens operations, it puts aside scoops, spoons, and curettes, does away largely with the tedious process of friction through the lids to remove cortex, and enables me to undertake operations of which previously I should not have dreamt.

I congratulate you upon the variety and interesting character of the discussions and papers which have been promised. The three subjects for discussion are of a very practical character, and I am confident that I only give expression to the feelings of the members of this Section, when I say that we anticipate that they will be ably handled by the distinguished associates who have undertaken the duty of opening the discussions. I need not refer in detail to the papers to be read. You can judge from the list, that they deal with questions which concern us deeply, and which therefore merit our closest attention.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PSYCHOLOGY,

*At the Annual Meeting of the British Medical Association in Belfast,
July and August, 1884.*

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THE PATHOLOGY OF INSANITY.

WITH advancing time, specialisation increases; facts increase to such an extent that many repositories are required, and many specially trained custodians are needed. The period of accumulation, the time of making fact-heaps, is not the period of highest culture, but it is a necessary period. The bricks must be made, and the rocks hewn from solid and resisting nature, before any secure and sheltering edifice can arise.

There are sufficient signs that collections of facts concerning insane patients are being vigorously made, and that the present generation is not content with the mere naming of things, but is seeking better to classify and to understand them. Every large generalisation must affect the knowledge of facts which have already been collected, and all true generalisation is found to be applicable in regions where, at first sight, it seemed to have no force. In my address, I shall endeavour to point out some of the generalisations of science which have been recently made, and trace their influence in our special domain.

I shall, in the following paper, refer to psychiatry in many relations, and I shall pay most attention to its advancing lines. I shall cursorily refer to its literary advances, more fully study its scientific developments, and, in brief, consider some points in which the educational, social, and legal aspects are involved.

First, then, from its literary point of advance. I can rest satisfied with the evidences which exist of the activity in this branch of our speciality, for every month has seen new volumes or new editions appearing, each covering some new ground, and each with its own object in view. Doubtless these are of very different value, some being mere collections of the observations by others; while some are records of the life-work of carefully trained physicians. I cannot refrain from referring to the work recently published by Dr. Clouston, of Edinburgh, as it is a book of special interest as the first English series of lectures on insanity, in its scientific, legal, and social aspects. The lectures are eminently practical, and markedly truthful, and I trust that they will be but pioneers of many other series of lectures which may be published by other lecturers.

Under the literary head, I would refer to a deficiency which I trust is being corrected. Case-books, as kept in asylums, are not to my mind satisfactory productions, especially when compared with the case-books of the general hospital. In the latter, plain unvarnished facts are recorded; facts which often, after the termination of the case, are found to be of great value. Whereas, unfortunately, the

majority of the asylum case-books are filled with diary-like records: "about the same," "going on favourably," "no change," and the like. Such records can by no possibility be of any scientific value; whereas a record kept regularly of the weight, the temperature, the pulse, the condition of the respiration and excretions, might help in clearing up many doubtful points in the physiology of insanity. Till we, in asylums, have learned to register fully and exactly, we cannot expect to be able to take the next step, that of generalisation, for we shall not have the bricks to build with.

I think it would be well if we, in our Section, could decide upon a more complete series of questions which should be answered as completely as possible in reference to every patient admitted into asylums, for definite questions get more or less definite answers. Whereas, if each superintendent makes use of his own questions, the results cannot be satisfactorily compared.

This question of case-taking necessarily leads me to question whether the most use is being made of our asylums in the way of clinical teaching. The overburdened student should not have any more subjects added to his examinations; but my experience of ten years as a lecturer and teacher convinces me that students find a few hours spent each week among insane patients a useful, instructive, and not altogether unpleasant variety, and by it they lose their cramped ideas of horror which have been connected with insanity. They mix for a time with another world, one in which the tints and hues of facts are changed, and may be refracted, and yet can be traced as similar to those experienced by the same world. I am inclined to think that in an asylum the very greatest laws of therapeutics can be taught, that students can be shown that the administration of a draught or a pill is small compared with the alteration of surroundings. In an asylum they meet with patients recovering from serious disease, who have been treated, not by physic, but by quiet pleasant sights and soothing influences; and I believe that as they grow older they will find that other than mental disorders may be satisfactorily treated on similar principles.

Many a sickly person now in hospital, being removed from his poverty-stricken surroundings, and placed in establishments resembling asylums, would improve even more rapidly than when sent to the hospital. Let the patient with early phthisis be made to breathe and move in bright sunshine, with stimulating food and medicines, let cheerfulness, and not the shadow of the grave, rest over her, and she may yet recover, bacilli notwithstanding.

The future of medicine must rest on means, not on potions; we are advancing, but still the relics of the ages of faith and simples remain.

One chief object of my address will be to refer to some of the points at which ordinary medicine and mental medicine come in contact, and should be made to assist one another. Nearly every bodily ailment has a mental aspect. I do not only mean that pain as evidence by laborious working of the organ will affect the whole body, but I go further, and say that mind is but the organised result of all the past experience of the being, and therefore that mind, being an ever inconstant and growing power, varies directly as it is supplied by impressions from all parts of the body.

I shall consider more fully the examples of what I refer to. Now I think we are wrong in making our classifications etiologically. It is convenient to make use of such terms as phthisical or gouty insanity, but they are misleading if we lead others to think that the insanity depends on lung-conditions or blood-conditions only, or if they believe that the terms infer that patients will pass through regular courses of symptoms connected with phthisis or gout.

The time is not far distant when the terms mania, melancholia, and dementia, will be merely used as are the words headache, vomiting, and albuminuria, referring to symptoms and not to diseases. I think diabetes, for many reasons, is comparable with insanity. Like it, the causation is doubtful. Like it, being a symptom, it is named as though it were a disease. Cases of insanity, to my thinking, will be divided, first of all, into those in which there is disorder of function, and secondly, those in which there is disease of the organ, as well as disorder of its functions. Probably some will say that no disorder can exist without disease of the organ. This may be so, but, in this case, I should like to see a definition of disease which will cover only disease and not include disorder. Is diabetes a disease, or a disorder? Is a conversion from drunkenness and impiety to a state of religious satisfaction to be separated by a definition from a moral perversity frequently met with in early insanity? Is it, in fact, disorder or disease? I can understand the idea that want of harmony and disorder of function are not to be considered the healthiest conditions, but what are these healthiest conditions which are only discovered by a sacrifice of hundreds of lives to prove the laws which govern them, and are no sooner discovered and formulated than they are abrogated

by changing conditions when other healthier conditions are discovered, to be set aside in their turn?

I do not always expect to find congestions, inflammations, or adhesions of membranes within the skull as the evidences of the past changes in life. A stone falls into the placid lake, and sets ripples circling on in steadily increasing compass, but I do not expect to find any material change in the water through which disturbing energy has been transmitted. In the same way, nervous shocks may set up a series of disturbing ripples, which may affect the brain and its action just as the stone disturbs the smooth surface of the water, yet no coarse evidence may be found of the cause of the disorder.

Many lunatics suffer from disturbance of balance, but are not in any way to be considered as suffering from diseased brains. The treatment of disorder and of disease must surely differ entirely, and I think, therefore, that the diagnosis between disease and disorder is of the utmost importance for the welfare of the patient. Disease of the brain does occur in the insane, so that we find the finer elements of the nerve-tissue interfered with; but, on the other hand, it is astonishing to find how few mental symptoms may be present when disease of a coarse kind is present within the skull. I constantly see patients in general hospitals in whom no serious brain-disease has been suspected, but who died; and, at the *post mortem* examination, large growths are found affecting one or both hemispheres of the brain. Death has resulted simply from pressure. In fact, pressure within the skull has much more disastrous effects than large changes affecting certain areas of the brain.

This leads me to what I would have considered the basis of my address—the pathology of insanity as at present understood. One secondary point is noteworthy in passing. Great misconception exists in reference to the temperature met with in insanity. This is due to our defective clinical examinations. Records are rarely of any value, because they are so defective. I believe the temperature is commonly above normal in many cases of mania, and even in some cases of active melancholia. In general paralysis of the insane, it has long been recognised that the temperature may be above normal; but the most remarkable part of this disease seems to be its variability, and, just as almost every symptom of this disease may vary from day to day, so the temperature may be found normal on one day, and elevated or decreased the next. It is of importance to recognise the fact that increase of temperature may occur in ordinary mania. It is not safe to say that, because the temperature in an early case of mental excitement is high, therefore it is almost certain to be rather delirium than mania. Daily, I find it more difficult to separate between the two—mania and delirium.

During the past year, I have had several opportunities of watching the direct transition of delirium into mania; and I think, therefore, a few words on this subject may be of value. That delirium tremens may pass into mania is admitted, but that the delirium of fever may directly pass into ordinary insanity is not recognised, and that delirium produced by a poison like belladonna may start first delirium, and then persistent mania, is, as far as I know, unrecorded, but I have seen this happen, and recently I have seen two persons who were sane when put under chloroform awake maniacal, and remain insane for weeks.

Considering these cases, who can believe that the inhalation or temporary poisoning has left a mark on the brain which the microscope can detect? I do not. The web of life may, with its thousands of threads, get tangled and knotted, its appearance being thus altered and its use interfered with; but the thread consists of the same elements and has the same properties, no microscope will be able to detect the tangled histology. Again, that something besides what is considered disease is associated with insanity is shown by the cure of certain persons simply by reason, and not by therapeutics; a very slight change in the surroundings may make a complete alteration in the patient.

What can be the pathology of such a case as the following? Mrs. C., a hard working teacher, suffering from amenorrhœa—about the time she is going to be married—which is associated with perversion of feeling, so that she declines to allow her husband to consummate the marriage, believing herself to be unnatural, and not a woman. Months pass, and she still denies her husband. She is sent to Bethlem, and is there, with little or no benefit, for some months. Though she is allowed to see her husband and friends, she says they are changed. Various changes were tried in vain, till one day she was taken out to see some friends residing near her husband. She recognised them as not being changed, as she fancied they would be, and was then induced to visit her husband's house, where she saw and recognised as her husband the man to whom she had been married. From that time, acknowledging her error, she accepted her husband.

In some other cases, I have seen insanity cured by reason; but I never yet saw a diseased organ cured by a similar method.

There are cases in whom nerve-storm headaches are replaced by insanity; and in one case, after the recovery from insanity, no more nerve-storms occurred. Such cases surely point rather to change of relations than to disease or destruction of the nerve-centres. In epilepsy, probably, we have the most marked examples of physical symptoms being replaced by mental disturbance.

Epilepsy, we know, may be present as a symptom of local brain-disease. It may be present as a result of some local cortical brain-lesion. In fact, it may appear as the result of almost any local or general disturbance affecting the surface of the brain; it may occur with little or no mental disorder, or it may suppress all mental function, or it may render the patient automatic, making him to be a machine acting with precision, and apparently with knowledge and judgment, and yet without recollection of what has been done, and with no possibility of responsibility.

Recently, I have met with several cases in which complex actions have been performed by persons who were in epileptic states. In one, a man was conscious when the fits were coming on, and had time to loosen his necktie. After this, he fell by the wayside, and, after the convulsions were over, he rose and walked in a staggering way for several miles, when the postepileptic sleep came on, and he, on waking, was astonished to find himself by the roadside, but three miles from where he had lost consciousness.

In another case, a boy, after an injury to the head, became subject to loss of consciousness, in which he for several days together would perform acts of a most complicated nature without having any recollection of them. He found his way to places where he had never been before, and discovered relations living there whom he had never before visited. Unfortunately, in one of these lapses of consciousness, he, being a bird-fancier, took some birds belonging to a neighbour, and, without concealment, placed them with his own. He was caught and sent to the House of Detention, and I had great difficulty in persuading doctors and lawyers that his condition was an epileptic one.

To proceed, then, have we any real pathology for insanity as a whole? Emphatically, I would answer no. Apart from general physiology, we have no special mental pathology. Every disease, as I said before, has its mental aspect: the dyspeptic is dull, and cannot enjoy life; the fever-stricken person, both before and after the crisis, is languid, I had almost said benevolent. There is a distinct placidity in fever-cases, as compared with cases suffering from brain-disease.

Besides the alternations of neuroses, one must consider the cases in which mental symptoms can be traced to be directly dependent on bodily states. In phthisis, we meet with special symptoms in asylums, which are often worse while lung-trouble is in abeyance, and become better when more active lung-symptoms develop.

In one patient now in Bethlem, hemoptysis is always followed by a loss of the delusions, and recovery of strength is marked by a revival of mental disorder.

Every day, one learns something fresh about the bodily side of mental disorders, but as yet little has been done in the way of careful investigations of the nervous side of general diseases.

I do not wish to claim all or even many of the ordinary diseases as neuroses, but there are many important facts deserving notice. We all admit, for instance, that worry kills, but how? I am sure strain and worry are often essential conditions for the production of renal disease. The nervous system is as far reaching as the limits of the body. Besides, in ordinary neuroses it is necessary to remember that there are what I might call neurotic cousinships or collateral inheritances.

No one knows what is common to the genius and the lunatic, nor are we better informed as to the nervous relations between the criminal and the lunatic. That there is something common to these classes is admitted, and it remains to be discovered what that is. But, besides the genius and the criminal, there are people who are specially subject to take specific diseases, some are no sooner exposed to contagion than they take the fever. As yet we cannot explain how or why this is. In some cases I know that this susceptibility is directly transmitted, and in others it is started afresh in families hitherto not exhibiting this specific capacity. Wherever it appears it tends necessarily to the rapid extinction of the family, at least in some cases I know the tendency to occur in the families related indirectly with insane families. Thus, in one branch of the family there may be insanity, in another genius and nervous irritability, and in a third liability to take on infection. It may be that the whole organism is becoming too refined for the friction of society, and fails from want of stability both along the specially nervous and the general vital lines.

The keenest edge is most easily blunted, and the sharpest point

soonest broken. When thinking of the cases in which phthisis exhibits itself, I was much struck by the cases of acute nervous disorder which succumbed to phthisis after the insanity was cured. It seemed as if nervous exhaustion or nervous instability prepared a soil suitable for the growth of lower organisms. In other instances the bodily disease of a similar kind is noteworthy. Hay-asthma in a large proportion affects nervous persons, and though those of non-nervous temperament may suffer, yet I believe those allied to neurotics suffer chiefly; persons who when young and healthy do not suffer, may be afflicted when advancing in years, or when from one cause or another they have become nervously unstable.

That insanity must be looked upon as disorder, and not disease, in many cases, seems to me to be evidenced by the fact that many seem to be natural developments from their inheritance and surroundings. Habits of mind and body may grow until they become the tyrants of the man who may develop insanity in himself or in his offspring. I have met with instances of parents having special tendencies, who have begotten children with the disease so strongly marked as to render them unfit for duties of ordinary life.

In one woman, who was passionately jealous, and did bodily injury to another, her mother was a woman of an Eastern race, who was noted for her exacting jealous nature. In another case, a lady developed ideas of persecution. Her father was a man subjected to passions due to excessive jealousy, which rendered his wife's life intolerable.

This growth of insanity may be watched as a result of surrounding conditions, as well as following direct inheritance.

Constant monotonous use of a muscle will lead to its wasting, often preceded by pain and cramp. This is more likely to happen if jarring or strain occur with use. Thus, the hammerman's palsy is more marked than the writer's cramp.

Monotonous training work will produce insanity. The two points, to my mind, are the monotony and the strain. It is not work in a great amount that kills, it is the work that is felt to be a burden.

In climbing or running, the break-down is ushered in by respiratory trouble, and, I believe, half the mental break-downs are related to impeded breathing; thus the melancholic patient does not breathe freely, and his vitality is thereby reduced.

Monotonous and solitary work produces insanity. Dr. Nicholson has pointed out that hallucinations develop rapidly in prisoners in solitary confinement; and there is no doubt that men are not meant to live alone; they are intended for the friction of society, and, without it, they may start all sorts of unnatural vital processes.

Yet, who is going to decide where the pathology of delusional insanity starts, and still less what brain-changes to expect? Old patients will live in an asylum for years, and after death we find no sign of local brain-disease, though hallucinations have existed unchanged for long periods. There are cases of insanity due to special sense-perversion, where local brain-changes are met with, and there are others in which the prospect of recovery is less because the misleading sense is imperfect; thus a deaf person with hallucinations of hearing is hard to treat, the impressions on his ears not only not correcting the false ones, but being themselves mistaken. I may here say that, for a like reason, it is better to send foreigners home for treatment.

I look upon Dr. Mercier's suggestion as an eminently useful one, and I wonder that it never entered into the minds of others to agitate for the return to their native lands of foreigners. The cases we receive in Bethlem always strike me with sadness. They are surrounded by people with other modes of thought than theirs; they mix with those whose language has often been the symbol of their bondage; they are suspicious and irritable; return home might cure them. In other cases, the feeble mind and failing memory shuts out the later acquisitions, and leave the patients stranded in a foreign land, with uneasy and incomprehended surroundings. I am sure many cases remain uncured who might be saved if sent home.

In speaking of the pathology of insanity, I should fail grievously if I did not take some notice of the pathology of general paralysis of the insane. I fear I have but little to add, but the longer I live, and the more cases I see, the more convinced I am that at present we have not got the clue to the true division of this disease, nor are we much nearer solving the problem of its causation.

First, as to causation, I am sure that injury will produce it, and I have no doubt that strain and worry may set up brain-changes which cause death by general paralysis. This question of strain will seem to many to be constantly invoked by me as a causation. They may think it a very shade without a substance, a clumsy shifting of responsibility; but what I feel is this, that, in nearly all cases of general paralysis not due to physical causes, the patient's life will be found to have been one of unhealthily sustained effort; in one case, the strain was due to simple hurry or to work against time; in another, the

work was done in states of fatigue, when a reserve of force had to be called up; in others, the strain was felt from the prolonged work with unsatisfactory results. Sexual excess, the cause so commonly assigned for general paralysis, may fall under the head of strain producing exhaustion. But there are several points besides exhaustion to which I would refer.

First, every year I see more cases of the disease in general hospitals, in which very slight or no mental symptoms are present, though the bodily disease is unmistakable. In some of these cases, there may be hypochondriasis, and I have met with several who have told me that they felt that they were going out of their minds.

These cases of general paralysis with few mental symptoms show us how far we are from understanding the physical basis of mind. General paralysis must contribute largely to the knowledge of localisation of function of the brain, but of this later on.

Besides the brain-changes, we have to consider the spinal pathology of general paralysis. One recognises a definite group of cases in which lateral sclerosis exists; and, as Dr. Mickle suggested some time ago, this may be due to primary degeneration of the motor areas of the brain; and the more I see of these cases, the more certain it seems that cord-changes are chiefly secondary. It does not follow that all these cases are due to cortical changes, some may be due to primary lateral sclerosis of the cord, and there may possibly be general paralysis by propagation from the cord to the brain. And, again, the lateral sclerotic changes may be due to disease of the motor cells in anterior horns of cord itself.

The group of cases I am describing includes, in my experience, many cases of young men, especially single men who have had syphilis, and this latter is a question of very great importance. Nearly, if not all, the female cases of general paralysis I have met with have had lateral sclerotic changes.

It seems remarkable that women should not only be generally free from locomotor ataxy, but that they should also be free from ataxic symptoms, with general paralysis.

The fact above noted, that the cases in which syphilis has occurred suffer with symptoms of lateral sclerosis and muscular tremor, suggests the idea that mercurial treatment might have something to do with the production of the symptoms. It is a thing to be considered, and the pathology may possibly be this, that the syphilis has impaired the nervous system, but the mercury has defined the lines along which the breakdown is to occur.

I have not been able to say with certainty that certain motor areas are always affected in the brains of cases with the symptoms above described; but, so far, I should say the ascending frontal and parietal convolutions are the areas most affected. But more information is wanted as to special brain-changes found in cases of general paralysis with ataxic symptoms.

It would be of immense service if we should find that locomotor ataxy is only secondarily a cord-disease.

I believe that ataxy is but a symptom associated both with brain and cord disease. Locomotor ataxy is at present one of the battle-grounds for pathology, and I would come to the conflicting forces.

Locomotor ataxy has been shown to be directly associated with neurotic inheritance. It has been shown to be as hereditary as insanity. It has been noticed as connected with insanity, of various kinds, in many ways. Thus, an insane parent is said to be likely to beget an ataxic child; and I have seen locomotor ataxy start together with general paralysis. I have seen locomotor ataxy precede general paralysis by months or years, and I have seen three cases in which out-breaks of insanity occurred in the course of locomotor ataxy, and passed off, leaving the paralysis unchanged. I have seen a case in which insanity, other than general paralysis, has been present with ataxy, so that the symptoms of ataxy were insanely explained. One man said that his legs were converted into a lightning-conductor, and his belly was twisted, his semen removed, and his bowels rendered patent by the machinations of his enemies.

The above observations make me believe that some cases of locomotor ataxy may start with brain-changes, or that the cord is associated with mental function to a greater extent than we at present allow.

Next, as to the localisation of function in the cortex of the brain. Doubtless, the gropings of phrenology lead to the science of localisation; but one must not be carried away by the too great enthusiasm of professed supporters of the doctrine. My belief is, that there are proved to be motor-centres, and that certain areas are shown to be connected with certain special senses; but beyond that, we are in doubtful territory. Asylums have not contributed the amount of knowledge which they ought, and, as a rule, we only hear of the affirmative or successful cases of localisation; each of us must have seen cases in which there ought to have been distinctly wasted motor areas, and yet

these have not been found. That there are motor areas being granted, and that there are areas of special sense, we have exhausted all certain knowledge; and I cannot expect at present any great extension of this, because our knowledge of mind and its structure is so slight, that we cannot say what elements are necessary, and therefore what areas we ought to look for. It is pretty certain that most of our acquired knowledge comes from the registration of sense, impressions compounded with motor feelings; but, when we come to volition, I cannot understand the relation of areas to such subjects. I cannot bring myself to seek for an area of exaltation of ideas, or to expect to meet with a suicidal centre. Others have suggested that one or both these symptoms may result from unrestrained motor impulses; and, therefore, ought to be seated about the fissure of Rolando.

But there are other points of interest, in respect to the localisation, from our point of view—first, though injuries to the anterior lobes may exist with little or no intellectual loss, yet, in chronic insanity, wasting of frontal lobes is most marked.

Next, wasting, in melancholic and hypochondric conditions, is commonly seen at the junction of the ascending frontal and parietal convulsions. Next, in general paralysis, wasting of different parts of what had been described as the motor area is common.

Whatever we think of localisation of function, we must all be convinced that, whatever nerve-force or nervous energy is, it must be treated as a very real material something—that, in fact, there is only a certain amount of force, as the equivalent of a certain amount of tissue-change; and that any causes which interfere with the tissue-regeneration will interfere with the generation of nerve-force, such hindering of regeneration may be due to blood or to nerve-tissue. Or, again, there may be, from one cause or another, extravagant expenditure of nerve-force, a greater expenditure than can be made up by ordinary healthy nutrition. This waste may occur chiefly along certain tracts or lines of nerve-tissue; but they will be seen to exhaust the whole sum of nervous force, leaving other parts starved, and unable to act healthily. Examples of general nerve exhaustion, produced by special extravagance, are seen in cases associated with sexual intercourse, especially in cases of masturbation.

Another point of scientific interest, as to our relation to development and the evolution of the human mind.

I have, on the whole, been disappointed with the few evidences of reversion to lower animal types which are met with among the insane. Certainly, among idiots, there are individuals which seem to resemble the lower human races, and, even in habits and appearance, seem to approach the lower animals.

Again, in some badly developed children we meet with defects which had been placed under the head of moral insanity or moral imbecility, which could not be naturally referred to very primitive states of social development.

Very few mental "sports" have been described from asylums which are of any scientific interest. Perhaps it is that we have not sufficient knowledge of mental growth and the mental evolution of the race to enable us to seize on the specimens which are presented to us. I think, from time to time, I have met with instances of reversion. Thus, in insanity which is connected directly with the reproductive organs, hallucinations of smell are not uncommon, and I have often met patients of both sexes at puberty with such hallucinations. The same are also commonly met with in women at the climacteric, and others suffering with ovarian troubles; such patients often complain of being injured, and they sometimes accuse people of overcoming them with chloroform, throwing chloride of lime over them, or pouring nauseous and filthy odours in their bedrooms. Probably, other sensational reversions may occur; but hitherto I have failed to establish any relationship.

Though evolution has not been fully understood, in an asylum we have plenty of opportunities for studying the converse process of dissolution; and I hardly know where to place a limit to the explanations which dissolution may provide of many conditions of melancholia and weak-mindedness.

To take one special series of symptoms connected with nutrition will suffice under this head. We cannot doubt but that the very earliest assimilation of food, by the simplest monad, is associated with some feeling of satisfaction; all the seeking for food and the gratification of its acquisition tend to further seeking for and continuous gratification. As the organism develops in complexity, each function, in its earlier stages, is performed with satisfaction, if not pleasure, till, in fact, the whole of each complicated process becomes automatic, and the pleasure is one which has passed out of recognition; and that any sensation at all exists, after the performance of the function, is only shown by the pain and distress produced by the arrest or interference of its action.

Thus breathing is a complex which has become automatic, and is associated ordinarily with few or no sensations of pleasure; but the aspect of despair exhibited when the supply of air is deficient in quantity or injurious in quality, points very distinctly to the pleasure which has been removed. I believe that the performance of every function of the body was originally associated with deep seated voluminous pleasure, and that, though healthy adults do not recognise this, nevertheless its presence is proved by the pain caused by interference with the function. I would compare the generality of these feelings to the pressure of the atmosphere, which, though weighing 15 lbs. to the square inch, is not recognised as long as that pressure is exerted in every direction alike.

The mystery of the first few years of a child's life has not been cleared up. What, indeed, is being done during this prolonged mental gestation?

We recognise the series of efforts which are necessary to establish the muscular movements; so that the muscles are controlled first and leg muscles learn their lesson later. All this time the senses are learning what they are to see, they are gaining power and prejudice at the same time, and I believe the viscera are learning important lessons too.

Children, whatever may be our opinion as to their moral state on entrance into this world, would not scream and cry out of very wickedness alone. They have their sad visceral lessons to learn first; and their pleasures are, for a time, of a very simple and organic kind. I have no doubt they feel more pleasure or more pain in digesting and in breathing than do adults. They are conscious of the efforts made more than we, and I believe their gastric feelings are slowly evolving the very idea of self, which in a few years becomes so firmly established, and intimately connected with themselves, that they are unable to give any account of its origin.

For years general and visceral sensations are being stored and arranged, making a complete whole which, when working harmoniously, leaves no sense of jar or strain; but very slight disorder causes friction and pain.

Man does not know that he possesses a stomach any more than he recognises that he has a brain when he thinks; but let there be gastric disorder, either from stomach or nervous derangement, and he is conscious of this organ; or let there be nervous disorder, and the patient describes his brain as being heavy or light, full or empty, swollen or dried up, wasting or cracking, as the case may be.

In this relation, I am very fond of the old tale told by Sir Thomas Watson of the miller suffering seriously from nervous disorder, for whom rest and quiet were essential, the physician from town who could hardly, being in health, put up with the thumping and roaring of the mill, at once ordered the wheel to be stopped, but the miller could not sleep at all while the sounds to which he was used were absent, they had come to form part of his organised sensations. Their absence left him wanting something, and it is thus with our digestive feelings. We have got them organised during our earlier years, and only recognise their existence when they are breaking up into their constituent elements.

Thus, I believe, that many of the symptoms of the hypochondriac are to be explained by dissolution.

In some cases, I believe, especially those of general paralysis, local visceral anaesthesia may lead to ideas of loss of identity or loss of body.

According to my theory, the general paralytic who loses himself may do this because he has lost the ordinary sensations conveyed either by skin or by viscera, which were originally the factors in the child. I cannot say that I am sure, but I believe, from what I have seen, that extreme melancholy is met with in cases with atheroma of the aorta. I cannot explain the cause, but I have the authority, among others, of Dr. Sutton, for saying, that for years he has recognised anxiety is commonly to be met with in patients in whom atheroma of the aorta was common. This must suffice under this head of dissolution. Degrees and effects of loss of memory, the effects of loss of our control of the lower organic functions require some notice.

Recently, there was a patient in Bethlem who, for nearly a quarter of a century, had kept a skeleton buried in his breast, a sad and burning wrong, one he dared not trust to anyone, one affecting the honour of his name and of his children; no ray of light was ever allowed to enter the dark closet, till age, weakening and destroying the containing parts, exposed the skeleton in all its hideousness to every passer-by. His mind resembling a geological denudation, the long past buried was re-exposed.

This is of importance in reference to some death-bed confessions, and as to accusations made long after the crime has been committed and forgotten. In some cases, the revival may exaggerate the real

character of the original fault. Other intellectual degradations are seen as natural processes in age, and may leave many pathological puzzles to be solved. The very question of the basis of memory is here involved. When the old man should have a clear well defined recollection of his boyhood, his early manhood, and his full maturity, but should still be unable from day to day to recollect his present surroundings seems at first sight astonishing. In some cases, the affection of memory may be associated with other pathological conditions than those of age.

In an asylum, we meet with cases who have a perfect recollection of the nerve-storm through which they have passed; while others, suffering neither more nor less severely, have no memory of their past. In one case, the memory may be clear; in another, it may be masked; and in a third, it may be absent.

Recently, we have had in Bethlem a patient who, after loss of consciousness, said to have been connected with overwork, worry, and anxiety, recovered, but with complete inability to organise any fresh mental impression; so much was this the case that, when they told of the death of the husband for whom she had toiled and suffered, the impression of misery lasted for a second, when, interrupting her flow of tears, she asked why she was crying.

These and endless points of interest are laid before us by the gradual destruction of the mind; but I feel that already I have spent much time on what may be considered theoretical rather than practical instances; but I do not think that, when a special branch of medicine has to be considered at a meeting of medical men, in a centre of scientific life, we should confine ourselves to narrow questions of quality, but should study the whole relationships of our speciality to the widest fields of medicine; and, if there is one point upon which we shall all agree, I am sure it is that, as mental disorders are largely curable, and may be completely cured, we should call in the assistance of all our professional brethren to assist us in our work.

FIFTY-SECOND ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in BELFAST, July 29th, 30th, 31st, and August 1st, 1884.

FIRST GENERAL MEETING: TUESDAY, JULY 29TH, 1884.

The first general meeting was held in the Library of Queen's College, at 3 P.M., on Tuesday, July 29th.

The chair was taken by Dr. A. T. H. WATERS, President for 1883-84.

The minutes of the last annual meeting and of two special meetings were taken as read (having been published in the JOURNAL) and confirmed.

ADDRESS OF RETIRING PRESIDENT.

Dr. WATERS said: Gentlemen, the term of my presidency is about to expire, and the only remaining duty which I have to perform is to introduce my successor to the chair which I have had the honour to fill. The last year has not been an uneventful one in the history of our Association. On the contrary, it has been marked by the enactment of laws, with reference to the Society, which have produced a material alteration in its constitution—an alteration which makes the Executive more directly and more fully representative of the whole body. The change is one which, I trust and believe, will contribute to the continued, and even increased, prosperity and success of the Association. To that body, the Committee of Council, which has guided the Society to its present position of strength and usefulness, we owe, in my opinion, a large debt of gratitude. To that body, the Executive Council, which now comes into operation, we look with confidence for the future well-being of the Association, and for the carrying out of those great objects which have ever been among its highest aims. Gentlemen, I congratulate you on the great prosperity of your Society. I congratulate you on the steady increase in your numbers—an increase which bids fair, in the course of years, to include within the Association almost every member of our profession in this country. I further congratulate you on holding this, your fifty-second anni-

versary in the northern metropolis of Ireland; and I trust that the meeting will tend to promote the interests of the Association, and to cement more closely the bonds of union between the members of our profession in the two divisions of the United Kingdom. I had hoped that, in quitting the chair, I should have been able to announce that not only had we passed during my year of office a measure of reform as regards our own Association, but that an alteration had been made in the law of the land in reference to the profession at large, such as would satisfy some of its wants. Political circumstances have, however, postponed legislative action in this respect, and have led to the abandonment for the present session of the Medical Bill which the Government had introduced into Parliament. Let us hope that, when we meet again, we may be able to announce a satisfactory amendment of the present Medical Act, and that the principles for which the Association has long contended, have been realised. Gentlemen, I will not detain you longer, except to convey to you, and to the whole Association, my thanks for the great and distinguished honour which you have conferred upon me, in placing me in the presidential chair. Believe me, when I say, that I have fully appreciated and highly valued that honour, an honour which can only fall to the lot of a few, and for which I shall ever feel grateful to those to whom I am indebted for it. And now, gentlemen, there is another footstep on the threshold, there is another voice ready to address you, a voice well known to many here, and with every wish that the meeting over which he is about to preside may be a successful one, I call upon Dr. Cuming to take the chair.

Dr. Waters then vacated the chair, which was taken by Dr. JAMES CUMING, President for 1884-85.

Vote of Thanks to Dr. Waters.—Dr. JOHN MOORE (Belfast) moved:

"That the best thanks of the Association be given to Dr. A. T. H. Waters for his services as President during the past year, and that he be elected Vice-President for life."

He was glad to have the privilege of moving the first resolution submitted to a meeting of the Association in Belfast, a meeting in which he saw the realisation of a dream of years. Knowing the great labour imposed upon the President of the Association, and remembering the reception given to the members by Dr. Waters and his colleagues in Liverpool, he had great pleasure in moving the resolution.

Mr. FELCE (London) in seconding the resolution, said that, if the President's admirable address on taking office was the only service he had rendered to the Association, he would be entitled to the best thanks of the members; but he had had a hard year's work in connection with the recent changes in their organisation, and they were all grateful to him for the excellent way in which he had fulfilled his duties.

The motion was unanimously adopted.

Dr. WATERS said he was very grateful for the kind expressions that had been used in reference to his services. He hoped still to work for the Association as a member of the Executive Council, and would do his best to promote its objects.

Report of Council.—Mr. C. G. WHEELHOUSE, President of the Council, moved the adoption of the report, which, having been published in the BRITISH MEDICAL JOURNAL of last week, and also in the Daily Journal, was taken as read. It recorded, he said, the fact, that the fifty-second year of the life of the Association had been a year of very decided progress. The progress numerically had been the greatest that the Association had ever made; and the financial progress had been very marked. Whereas they were at one time a poor and struggling body, they were now able to pay their way, and had a fund in the bank on which drafts could be made when necessary. The Council had also during the year drafted a new constitution for the Association. For fifty years it had been carried on by men who had solely the good of the profession at heart; and it had increased in numbers till it now numbered nearly 12,000 members. He believed he might say, for the old Committee of Council, that it had done its work well, and that, having seen the Association through periods of trouble and poverty, it had left it landed upon a platform of success in all directions. They were now entering upon a new constitution. Instead of having a proportion of members of Committee of Council elected by the annual meeting, they were electing a larger number of Branch representatives; and the Branch representatives would henceforth take the government of the Association more largely into their own hands. He sincerely hoped that the work of those representatives would be as hearty and thorough as that of their predecessors had been. During the years of office of the old Council, the Branches of the Association had spread in all directions; and it had now become a powerful body, not only at home, but in distant regions of the globe. In regard to the death-rate among the members, they had not been hardly dealt with; but the