The increase of insanity : the Lumleian lectures, 1907, delivered before the Royal College of Physicians, London / by George Henry Savage.

THE INCREASE OF INSANITY

TO

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THESE LECTURES ARE DEDICATED

WITH HEARTY

APPRECIATION OF HIS KINDNESS AND WORTH

THE INCREASE OF INSANITY

THE LUMLEIAN LECTURES

1907

Delivered before the Royal College of Physicians, London

BY

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THE INCREASE OF INSANITY

LECTURE I

Mr. President, Fellows, and Gentlemen,—I have little doubt that each of my predecessors has in turn experienced similar feelings before he has delivered the Lumleian lectures. In my own case the feeling of pride at the honour bestowed on me by the selection of our President was immediately succeeded by some uncertainty as to the precise subject which I should select, and the apprehension which still persists lest I should, in any way, fail in my duty or fall short of my responsibility to you. Wishing to do my best, I have naturally selected the subject which my special experience of forty years should enable me to treat with some authority. But as I have not thought it desirable on this occasion to hazard any new theory or treat any special point with all the detail of thought and illustration which it would undoubtedly require, I trust that the apparently somewhat discursive nature of my remarks upon the wider issues may be

attributed to a desire to lay before you facts which are of general rather than highly specialised significance. At the present time the subject of the increase of insanity is being very carefully considered, not only in England, but in all civilised countries, and I feel that the very fact that it is being so considered has increased my difficulty. In all directions, both in the medical and lay press, articles have appeared on the subject, so that I have little doubt that the opinions which are the result of my own experience will frequently be found to coincide with the opinions already expressed by other observers.

At the outset I must acknowledge my own definite conviction that there *is* a steady increase in the numbers of the insane, and that this increase shows a definite relationship to the progress of civilisation. I do not myself think that this estimation necessarily implies the hopeless degeneration of the race, nor do I think that it furnishes an authentic basis for dread as to the future of the minds and bodies of our successors. With the multiplication of rules and regulations it becomes more and more difficult to fall into all varying social requirements, and my own particular experience indicates that many cases are attributable rather to social misfits than to material brain disease. In describing these and similar cases I may say that I rely upon my own observation, supported by such statistics drawn from official sources as I may find it

necessary to employ in connection with the more recognised groups of the insane.

Let me now indicate the lines on which I propose to move. First of all, before studying the question of the increase of insanity, it is essential that we should recognise what we mean by insanity. Of course, I take primarily the medical standpoint, but I have my doubts as to whether the social one is not, after all, the more practically important of the two. We find ample evidence that with no merely medical criterion on unsoundness of mind is the public easily satisfied; no doubt it would often be much better if it were. Next I will examine briefly into the more generally accepted causes and endeavour to show if it is possible to find amongst them any indication of the actual lines of increase. So that in a word the question will be, What are the special forms of insanity which are increasing? What are the causes which are more in evidence now than formerly were? And what hitherto unrecognised moral or physical causes are tending to produce, or to reproduce, mental unsoundness? And the evidence which I can offer in reply to these questions will, I hope, enable you to form conclusions as to the validity of the reasons given for the increase of the certified and uncertified insane.

To begin with, in judging the conduct of any person supposed to be of unsound mind it must be recognised that similar conduct may arise from totally different disorders

or circumstances and also that the mind is a very complex thing which has many ways of expressing the same feeling. Take, for example, the exaltation of ideas in a patient believing himself to be a king or a person of distinction. Such an idea may correspond with a temporary increase of pulse rate, and I have seen it prominent or suppressed as the pulse varied. It may succeed the loss of judgment and the feeling of buoyancy met with in general paralysis of the insane; it may be associated with the temporary disorder produced by brain-poisoning—say by lead or alcohol; or it may be a slow growth in some "mute inglorious Milton" or lonely idealist, who, possibly building on the "might have been," finally recognises in himself or herself a scion of royalty or an inspired poet. Or again, perhaps in a more advanced stage of degeneration of mind the patient, who may have begun by feeling that he was watched or spied upon, is convinced at length that he has discovered that all this was merely the protection essential to the movements of a royal personage—himself. In each case the conduct of the patient is similar, though the underlying ideas are so different. Similarly, I have often had to point out that what might be a reasonable act in one person would be insane extravagance in another. I mention these facts here because in determining what is meant by insanity, or what is to be done for it, the circumstances and environment have always to be considered. And notwithstanding their mutual points of resemblance,

no one pathology or treatment is applicable to all similar cases.

A question which I am often asked is whether I believe that certain persons only can be driven insane, whether the rest can never become mad—whether, in fact, there are many in whom nothing in the form of exciting causes will produce insanity. My reply is that almost anyone may have delirium, which is temporary insanity; that almost anyone, given certain physical causes, may have general paralysis, and also, it is sufficiently evident, that with advancing years the powers of the mind, both on the motor and sensory sides, may be impaired or disabled before the other functions of the body. Yet this notwithstanding, I still believe there are some persons who can hardly be driven mad by any outside stress or emotional cause. And surely it is worthy of consideration that so many very aged persons retain their senses and reasoning power almost unimpaired until the very last. On the other hand, that there is a class of persons accurately described as "neurotic" is very evident; and it is equally certain that it is this class which provides the largest number of sufferers from insanity and allied disorders. It is in regard to these that I have stated my belief that there is no ground for supposing the increase to be of an alarming extent.

But it may be well here to consider what I mean by

"neurotic," for I find it regarded as such a convenient term that it has frequently been made to include almost every nervous or mental disorder which has ill-defined symptoms. To be civilised, as a sane person, implies the capability of reacting normally to the changing conditions of one's surroundings, so as to interfere as little as possible with the interests, safety, and welfare of other persons living under similar conditions. With increasing complexity there must be an increasing power of adaptation, and, as might be expected, there will often be found a deficient or an undue social mobility. It is in this abnormality of reaction to surroundings that we find the true empirical basis of neurosis. Now this may arise from many diverse conditions. It may be a result of weak, degenerating, or insane parentage, or it may arise from causes which materially interfere with the nutrition of the higher nervous organs, from toxic influences, for example, or from generally debilitating causes, such as excesses of any kind. The point to consider is whether any of these influences have been acting so forcibly as to render the civilised races at the present time more likely to break down along nervous lines. In regard to this tendency the reports of the Commissioners in Lunacy for England, Scotland, and Ireland will be found most instructive. We are fortunate in this respect that the Irish Commissioners last year, taking it for granted that there was an increase in the numbers of

the insane, addressed special inquiries to the various medical officers of the asylums on this point and elicited their individual opinions in regard to it. Special stress, I may remark incidentally, was laid upon the danger of hereditary predisposition and excessive indulgence in alcohol. I think, therefore, that conclusions based on these reports, in so far as they agree, may be taken as the composite opinion of asylum physicians as to the causes of any such increase.

And now to speak a little more definitely on my first point. I still believe that what Hughlings Jackson said many years ago is true—viz., that we physicians connected with insanity resemble gardeners rather than botanists, that the fact must be recognised that we classify for convenience rather than upon a scientific basis, because in point of fact no such basis, or finality of mode, has as yet been discovered. And perhaps little wonder, since many have to be treated as lunatics in whose brains and nervous systems no change whatever can be found. Unfortunately, this necessity of definition and classification to which I have referred may sometimes lend itself to misinterpretation, as in the pseudo-legal idea—which I regard as neither reasonable nor convenient—that every person of unsound mind is a lunatic. Obviously there are many persons of unsound mind who are neither dangerous to themselves nor to others—why, therefore, regard them as aliens? The true difficulty is that a

disease "insanity," as a definite entity, does not exist. Yet one might almost conclude from the elaborate articles which have appeared in our leading daily journal that it does, and that it is as definite in its symptoms and its origin as cancer or pulmonary tuberculosis. It is impossible for the physician to view abnormalities of mind, whether congenital or acquired, as having a common origin and requiring a similar treatment. There is no such thing as a bacillus of insanity. I have dwelt upon this point because one of the many difficulties which the study of the insane involves is the necessity of regarding them from so many different standpoints. The medical man concerns himself chiefly with the evidences of bodily disease to be discovered in the brain or one of its servants; the lawyer looks not so much to symptoms as to the questions of reason and responsibility, whether, in fact, the individual can recognise what he is doing and the consequences of it. The public at large considers chiefly questions of conduct, asking whether a person is dangerous to himself or to others. *Apropos* of the latter, we constantly meet with statements that many people are placed in asylums because they are troublesome rather than because they are dangerous; and it is also worthy of remark that there are many who desire that the feeble-minded and eccentric should have greater or even perfect liberty, so long as they are not a social danger. This point is, I think, rather well illustrated in

the peculiar distinctions recognised on the popular side—thus, persons are spoken of as being "beside themselves," or "out of their senses," or "out of their minds." To these you will note that I have already added my own conviction that many are really "out of their surroundings" and thus are aliens.

The conclusion then follows that, there being no definite entity of insanity, there can be no one comprehensive definition of it. And that the person is sane or insane in relation to his own standard and not to any existent arbitrary one, except the conventional arbitrament of civilisation. And as this varies the truth of my former remark becomes evident, that what is reasonable conduct in one man under certain conditions, may be plain madness in another differently situated. I often think of a splendid young animal whom I saw—the son of a distinguished father, who rightly judged his son to be an anachronism—out of place in fact; and considered that he would have made a fine knight in the Middle Ages, and perhaps even now might make a good cowboy in America. It becomes evident from such a case that there may be some who have a reason for attributing the causes of their insane position to their wrong surroundings. And here I would point out that there is a sense in which insanity is merely a question of degree. For example, a small amount of miserliness may be all right; but, when you find it developed into the habits of the

recluse, who starves himself, though he has plenty of money, avoids all society, and neglects cleanliness and all the simpler conventions of life, he may be treated as insane. I knew such a recluse, with plenty of money, who lived a hermit's life for thirty years or more, prowling about the streets at night, and lying in bed during the day; yet no steps were taken, as he did not interfere with society. But when called to see a similar case not so well off, I found that the authorities had already been called in. His small house being neglected was regarded as insanitary and he was removed to an asylum. Thus we see that similar conduct is, or is not, practically regarded as insanity according to the conditions. And if there should be some who regard this view as of little importance from the practical or statistical standpoint—as referring, in fact, to a very small area in the wide field to be covered by the specialist—as not affecting in a vital degree the estimated sum-total of the insane, I am not in agreement. I still maintain that very many of the chronic insane owe their position largely to their surroundings, and the part which their surroundings and circumstances have played as factors in the determination of that position is precisely what it is often important to consider before any reliable statistics can be built up in regard to the mental evolution or degeneration of the race.

With regard to a certain degree of a particular habit

or feeling being considered normal, but its excess insanity, I may give the example of a very devoted husband, who, with advancing years, dreaded the absence, even for a very short time, of his wife. Later he began to suspect that she was more absent than was necessary. Finally, though there was not the slightest ground for suspicion, he demanded from her a confession of her misconduct, calmly observing that he would forget and forgive. Thus, the overgrowth of natural affection, and the suspicion of an imaginary sin have led, I fear, to a permanent delusion, wrecking two lives. Where are we to look for the material basis of such a delusion? The conditions are still more complicated when the person proves to be a social misfit. There are some, like my cowboy youth, who are out of harmony with their surroundings from the first. There are others who, as a result of education, disease, or other circumstances or causes, pass into a social grade different from their own. I have known public school and university men who have proved quite unfit for their natural homes and yet they have done admirably as artisans. Are we to have a pathology for such conditions? Of course, a certain number of these social failures add to the numbers of the insane in our infirmaries and asylums. Undoubtedly, some may say there is some brain defect in these persons to account for their degradation; but how about the change of reformation, and in regard to those who have been

converted, are we to have a pathology of conversion as well as of perversion? At any rate, the fact remains that not only from the social but from all other standpoints insanity is judged rather from conduct than from any known mental symptoms.

I will now proceed in order to consider the insanity of brain disease, the insanity of brain intoxication, the insanity of the truly neurotic type, the insanity of habit or association, and the insanity of function, simple disharmony, or want of accommodation. In considering these points I will give my experience as to the relative increase among them. First, then, there is a considerable amount of insanity depending upon natural decay of the nervous centres chiefly represented in the brain. The Commissioners give a table showing a considerable increase of longevity among the surviving senile insane. The chronic insane in asylums are like pensioners; they are removed from the stress and anxieties of life, they are carefully tended, and sometimes their very mental defect will lend itself to a calm which itself is favourable to a long life. Again, it is certain that, whereas in a former generation the old people were kept and guarded by their relatives, these latter are now more easily persuaded that they would, in their indifferent or mindless states, be better in an asylum than elsewhere. And the infirmaries, on their part, are only too ready to transfer to asylums those who are not able to be of service in the wards

and for whom they can get a bigger grant from public funds if they are sent to an asylum. Hence, the insanity of old age does certainly represent a considerable increase of the insane population. The forms of insanity associated with old age are not special in character, though many of them exhibit analogous features associated with loss of memory and loss of the senses of time, place, and relation. The insanity associated with premature decay, with toxic brain infection, is best represented by general paralysis of the insane. Here again, without doubt, there is considerable increase. In England, Scotland, and Ireland, all three, the Commissioners' reports prove this. Although we are at present unable to say that this disease proceeds from one definite source, there seems to be little doubt that syphilis added to alcoholic indulgence in city residents constitutes the chief cause. In England the progress is steady, and it is interesting to note that this disease is now more prevalent among women than it used to be. This is markedly observable in Scotland. Women will have men's rights and with them they incur further risks.

Forty years ago the medical officers of asylums in Ireland often came to Bethlem Hospital to see cases of general paralysis because they wished to assure themselves that they were not overlooking the disease. Personally I visited many Irish asylums in those days and I found very few cases of the disease, which now is common enough, particularly in the Irish asylums near cities.

In America a similar experience has been recorded among the negroes, who before the Civil War rarely provided cases of general paralysis. Now these are common enough. In the last Scotch report general paralysis is stated to be increasing more rapidly in Edinburgh than in Glasgow. This seems hard to explain, but I am inclined to think this must depend on some difference in the diagnosis, many cases appearing as brain syphilis and not as simple general paralysis.

The next group to which I call attention is in many ways important and interesting, particularly at the present time, when toxins are the favourite explanation of most morbid states. I would recall what Sutton said many years ago, that though there was doubtless much to be learnt from an observation of the relationship between micro-organisms and disease, yet, as effective causes, their importance might be over-estimated and their operation misunderstood, that just as we lived *on*, and aided *by*, them when healthy, so it was when we began to fail in any direction that the microbes were ready to prey on us. That mental disorder amounting to insanity may depend upon toxic influences is too well known to require much illustration on my part, yet it is perhaps worth while to note a few of the special forms of disorder which follow intoxications of one kind or another. First, then, there is generally a progressive affection beginning with the most highly specialised parts leading to defect in the last and most complex attainments, the con-

tinuance of such infection leads to further loss of power, and, as Hughlings Jackson has pointed out in his "Factors of Insanities," a letting loose of functions dependent on what he has called the lower or subordinate mental strata. It is thus that we get with loss of power, restlessness and deliria. A still further exposure to the toxin leads to destruction of the parts and the annihilation of the functions. The result is a complete parallel to the decay met with in old age, which, I suppose, justifies Metchnikoff in his suggestion that senile changes depend on micro-organisms.

I have already spoken of neuroses and given some description, if not a precise definition, of them; and now, in natural order, I propose to consider the special forms of insanity which may be said to possess this common factor, that they are usually associated with insane or degenerating parentage. This class provides the largest number of long-lived residents in asylums, who used to be grouped together as incurables. They generally come of insane stock and tend to transmit their neurosis, in one form or another, to their descendants. They are more liable than others to break down under slight stresses; *ceteris paribus*, their neuroses appear at the critical periods of life, such as adolescence, puberty, and, in the case of women, with child-bearing and the menopause. These patients show a special liability to relapse after recovery, and, as a sequence, to establish a habit of recurring mental disorder—mania, melancholia, as the case may be. This morbid habit may become more

and more organised and pass into regular circular insanity. The ease with which morbid mental processes are started in such cases is exemplified in the manner in which hallucinations of the various senses appear and develop; having appeared, they lead on in natural order to delusions of various kinds, to some extent coloured by the age, sex, education, and surroundings of the patient. But that persons even with fully-organised delusional insanity have any specially recognisable affection of their brain I doubt. I daresay that in many there is some change of condition and in many also a defect of the highest powers; but as yet I am convinced we shall not learn much even from most careful histological observation. Without being a pessimist, I fear my experience is that such persons are slowly increasing in number and that no amount of drug treatment will have any effect upon them. If any good is to be done it seems to me that it is rather to be hoped for from the methodical and contemned treatment followed in asylums. What cannot be cured must be endured, and I fear that persons suffering from fully-organised delusions are as little likely to lose them in many cases as they are to change their features.

With the above we have to consider, as depending upon a neurotic heredity, those who furnish examples of certain, often recondite morbid modes of mental association—persons, in fact, suffering from so-called obsession. No reasoning seems to affect the beliefs or tendencies of these

persons, yet in all other relationships their conduct may appear to be perfectly sane. Thus, a patient told me he knew it was a mistake, yet he dare not touch anything without gloves; another was afraid to sit in a chair without a preliminary dusting. He admitted that this was useless even if there were infection in the chair, all the same he must go through with it. Another patient, having been once bitten by a dog was never free from the dread of hydrophobia, and though no signs existed of the dog ever having suffered from rabies, yet he could not go near the city where the accident happened. That with some of these morbid associations a physical basis bears a part I must admit, for this latter gentleman only comes to consult other physicians or myself when he is suffering from general symptoms of ill-health. On the whole I am not prepared to say whether there is any material increase among those suffering from obsessions.

To complete this part of the subject I must name the allied sufferers from the *folie de doute*. This may be seen to depend on different causes in different persons. The highly-trained legal mind may be so evenly poised that it cannot come to a conclusion; and the individual who suffers from this condition, or from its allied state of *Grübelsucht*, is suffering from a disorder which I cannot associate with brain disease. The manner in which a simple natural idea may pass into a morbid one is shown in the following case. A well-educated man of good social position fell in love with a lady of good birth who, in

consequence of the ruin of her father, found it necessary to give dancing lessons in order to earn money. The idea that she might expose her ankles to strangers so possessed him that he felt life intolerable, and no amount of argument that the lady was only teaching girls produced any effect. Again I have met several doctors' wives who have developed an insane jealousy in consequence of their husbands attending midwifery cases. Thus, obsessions developed after the manner I have indicated have had serious practical effects, though in the cases to which I have referred the seclusion of the sufferers was not required.

Again, the perfectly natural way in which ordinary feelings may lead to insane developments is well illustrated in such cases as the following. A young man early in life becomes deaf; at first he feels the loss to be a very real and personal one, but he is content to do his best under the new limitations. Later he experiences several disappointments, for example, in love; no doubt depending on his defect. Slowly he builds up a delusion that people shun him; gradually he becomes convinced that there is an organised system of annoyance. An insane or violent act may be the first indication of the progressive mental disorder. In this example marked physical defect is the starting point, but one constantly meets with patients affected by a mere peculiarity which they think influences people against them. For example, a man with a scar on his nose believed that this was looked upon as the "mark

of the Beast." Another, who had led a seafaring life, was certain that everyone recognised in his scar evidence that he had had syphilis. Apart from personal defects or peculiarities one meets with many in whom a disharmony with the social environment has given rise to a morbid mental growth. A widow with small means has to reduce her expenditure. She believes her neighbours shun her; from this she develops a whole system of suggestion, innuendo, and annoyance, which may cause her to injure herself or her children, or perhaps to appeal to the police. Such cases are of everyday occurrence, and I rather presume they tend to increase with the complexity of urban life.

Allied to such cases are those which I place under the heading "conscientious." Almost daily I see cases, generally young, of both sexes who, living their home-life and regarded as most quiet and well-behaved persons, have nevertheless slowly withdrawn from all intimate friendships, they have taken to self-improvement, they lead laborious days and often studious nights. They are said to be scrupulously conscientious. They are only very morbidly sensitive. Often they go on thus for years before it is discovered that brooding has led to the hatching of delusions of persecution. Here I suppose there is probably an unhealthy nervous system, but I do not think it is such a one as will in the material part of the brain be shown to be defective. This kind of case is frequently illustrated in the only sons of widows who live their quiet life surrounded

only by female relations. This class includes a large number of persons who drift into delusional insanity. I am fully aware of the fact that there are hundreds or thousands living similar lives who do *not* break down nervously, and that there are other elements in the situation. What I wish to enforce from the standpoint I have chosen is that such persons must be treated by change of condition and not merely by drugs alone.

It will be seen that in all the cases to which I have been referring I seem to deny the existence of any material pathology. I merely say that in those cases where the mutual reaction shows a distinct degrading influence in the surroundings of the individual it is more or less hopeless to look for any real uniform material cause in the person himself. Of course, I allow that variable bodily states may dispose a person to be more readily affected by his surroundings and therefore more unstable. But I shall have failed altogether if I have not shown that there are many nervous conditions in which the visible defect is one of arrangement and accommodation rather than destruction of any portion of the material basis of mind. I cannot therefore accept much that Hughlings Jackson has written in his "Factors of Insanities," because while he regards mental symptoms as the morbid product of the brain he does not sufficiently recognise them as a resultant of the forces of the environment. That every idea and every delusion have a representative in some material change in

some part of the nervous system of course I do not deny: but that there are always definite changes which are the equivalent of insanity, I do deny. Before leaving this part of my subject I must refer to functional mental disorders. I cannot admit that all these have any material pathological basis. In fact, I still maintain that there are such things as functional mental and nervous disorders.

Let me quote what the late Dr. H. G. Sutton wrote on this matter: "Failure of function leads to organic destruction. It used to be taught that structure makes function, but it is the reverse, just as the blacksmith makes the horseshoe, fitting the iron for service. In nature it is evident that all function is making union—a living and a loving—while in disease there is disunion." Finally, unless we admit the supreme importance of surroundings both in giving rise to and in sustaining mental perversion, we cannot fully recognise the equally supreme necessity of judiciously modifying those surroundings and conditions in order to effect a salutary change.

Take this example. There was a girl admitted into Bethlem Hospital suffering from acute mania. After some weeks, quite suddenly, all the maniacal symptoms disappeared, but she was paraplegic. The state of paralysis lasted for some weeks, to be again replaced by mania, which in its turn was again followed by paraplegia. Eventually the paraplegia slowly passed off, leaving the patient sane in body and mind. Certain other cases in which neuroses are interchanged are

interesting: thus, sufferers from asthma or hay fever will lose these affections while suffering from another form of neurosis. I cannot find anything but a dynamic pathology for some of these cases of sudden cure. I have known patients apparently demented for years suddenly, without any bodily change, wake up perfectly sane and with no loss of mental power. A watch may lie inactive, for want of winding up, for years and yet not decay. The mind seems capable of resting in the same way. In this case we must fain call it apparent dementia.

The next part of my subject—a brief reference to what may be called the ordinary forms of mental disorder—is, I think, less likely to give rise to any differences of opinion. First there is mania, the loss of higher mental control, which really extends from delirium to hysteria. As Jackson has pointed out, the removal of the higher control facilitates the demonstration of the lower activites of mind and also allows them to assert themselves in an abnormal manner. I am inclined to think there is an increase, though not a very large one, in the cases of acute delirious mania—grave delirium, as it has been called. This disease is doubtless the result of some toxic influence and will furnish evidence of what I have said elsewhere, that anything which will produce temporary delirium may give rise to delirious insanity. It may follow infectious fevers, alcohol, or some auto-toxins, arising, I have little doubt, in many cases from initial brain changes. I think, judging from my

own personal experience, that the result—or, at any rate, one of the results—of reduced consumption of alcohol is that there are found fewer cases of grave delirium arising from or following delirium tremens. As to ordinary mania, the general opinion I find among the metropolitan asylums is that there are fewer cases of simple mania than formerly, and that certain forms of mental disease which used to begin with mania are now more commonly seen in a melancholic state. This is said to be the case in adolescent insanity and also in general paralysis of the insane. This conclusion has by some been attributed to the part played by influenza in starting the neurosis, for there is no doubt that, as a rule, melancholic states are more common after this disease.

Next as to melancholia. You will gather from what I have just said that my own experience, which appears to be supported by that of most asylum physicians, is that there is an increase of melancholic patients and also of melancholic *symptoms* in the various forms of insanity. The self-conscious youth is religiously depressed. The girl with amenorrhœa is contrite and self-accusing. Middle-aged men and women are suspicious and doubtful as to their social position or their conduct in the past; with advancing years comes a dread of poverty and the workhouse, and perhaps the desire to leave a world where they feel that they have already begun to outlive their welcome.

The next general form of insanity, to which I have

already several times referred, is so wide and so far-reaching that I am not surprised to find an almost universal belief in its increase. Dementia is the termination of many forms of insanity. As I have already pointed out, we have to deal with the fact that the insane live much longer than they did: they remain till the end in asylums and are thus recognised in census statistics. Again, a tendency to senile disorders leads naturally to an increase of senile dementia. So there are more old people to become insane and the insane live long enough to become old. I have little doubt that the various types of youthful disease tend more rapidly to mental weakness than they did in former years, but this is rather a belief than a proved fact. As to the various forms of dementia—such as those depending on syphilis, general paralysis, or alcohol—some are increasing, others are stationary, at present.

Under the head of "functional disorders" I referred to the truly neurotic insanities and I stated my conviction that they were increasing. I would point out that here again we ought to be on our guard. For it is pretty certain that these persons also accumulate in the asylums and live longer lives there. I certainly think myself that many among such persons might be allowed to live free, at least from asylum control. I have not referred to the large class of idiots, imbeciles, etc., as I do not personally claim enough knowledge to speak about them. I do not, however, think it can be denied that there is a very large and probably

increasing group of social failures, the failure depending on some nervous want. Some of these are physically unfit, others are wanting in their senses, while many are morally weak and unfit for ordinary social life. Whether these are increasing in proportion to the population I cannot say, but that in the future they will have to be seriously considered I do not doubt.

And now to sum up shortly what I have been aiming at to-day. I have desired to make it clear that I cannot accept any definition of insanity as a disease. I have endeavoured briefly to delineate its social, legal, and medical aspects, each of which differs from the other. I have referred, in the time at my disposal, to the forms of mental disorder which appear to be the most interesting and worthy of consideration at the present moment. I have expounded my belief in the existence, or the non-existence, of a pathology for such cases, and I have given a few details here and there as to the increase of the various groups. If I should be considered to have expressed too hasty a conviction in regard to certain cases, which, being out of harmony with their surroundings and obnoxious to society, are in our day treated as aliens, I would nevertheless repeat my opinion that although insanity cannot be predicated of that which is neither a mental nor a physical organism, although I cannot go so far as to say that the insanity lies in the environment itself, yet in not a few cases the actual source, and especially the sustenance, of the disorder, do lie in the surroundings

rather than in the patient; and to a judicious and well-advised modification where possible of the surroundings and circumstances only can those interested look, with any prospect of success, for the desired safety, convalescence, or cure.

LECTURE II

THIS lecture will be devoted to the causes of insanity. I shall only take a few of these, such as will indicate sufficiently my views as to the probable increase among the insane. The three principal causes to which I shall refer are hereditary predisposition, alcoholic excess, and the influenzal poisoning.

The whole question of heredity is being studied with so much care that enormous numbers of facts have been added to our knowledge, but as yet no great and directing guide has been discovered, for though one has to accept it as established that no mutilation or established acquisition is transmitted to the offspring, yet I have to maintain that many nervous peculiarities are passed on more or less modified from one generation to another. A considerable part of my lecture will be devoted to my views founded on my experience as to the amount and forms of neurosis which may be transmitted, and probably this is one of the most important questions that I have to consider. It is a very widely spread belief that every case of insanity depends in some way upon nervous inheritance, and that all forms of insanity are equally dangerous, as far as their

transmission is concerned. If I have succeeded in making anything clear in my first lecture I hope it is that there is no definite disease "insanity" which is likely to be transmitted. The importance of considering in detail the relationship of inheritance to mental disorders is not only medical but social. It is a question which medical men, especially family medical men, have frequently before them—the danger of marrying into families in which cases of insanity have occurred. In some cases, undoubtedly, alliances of that kind are to be hindered and, if possible, stopped altogether. On the other hand, there are many cases in which insanity of the parent is not more likely to be transmitted in any shape or form to the descendants than an accidental injury or mutilation. In passing, I would say that the same holds good in relationship to consanguineous marriages. It used to be believed that a large percentage of deaf mutes, and of the imbeciles and idiots, were the result of consanguineous unions. It is pretty conclusively proved that consanguinity alone is of little or no importance. In fact, if the two blood relations happen to belong to absolutely healthy stock the progeny themselves will have an excellent chance of being healthy in mind and body. If, on the other hand, there is any tendency to neurosis in the stock, or if there is a tendency to neurosis on the one hand, and to degenerative disorders, such as phthisis, on the other, then undoubtedly the union of blood relations is specially dangerous. In some

cases I have seen unions which I would not have advised still turn out quite satisfactory. It therefore is my opinion that although it is undesirable that neurotics should marry one another, yet the marriage of a neurotic with a perfectly sound and healthy individual is much more likely to eradicate the neuroses in the offspring than to accentuate them. It has been thought that some of the increase among the insane depended upon the fact that a large number of patients were now discharged convalescent from asylums before they were really well, and that during this period of convalescence they might become pregnant or might beget children who would be strongly predisposed to nervous disorders. The statistics, especially those recently collected from the Irish asylums, do not in any way substantiate this belief. There undoubtedly are cases, and such have come before my immediate notice, in which a patient recently recovered from insanity has become the parent of a child who has been unduly unstable. No statistics, however, are available to show that any increase of insanity depends upon any such cause. I am in the habit of comparing neuroses to the mycelium of a fungus; just as the plant grows unseen beneath the surface and is only recognised by the development of the mushroom or the toadstool, so the inherited neurosis may be hidden and only appear under special conditions. I believe there is a neurotic type, to which I shall have later to refer, which may produce a brilliant

result, on the one hand, or, given other conditions, may lead to a disastrous or dangerous product, either criminal or lunatic. It has to be recognised that though insanity itself in a definite form is not transmissible there is a tendency to develop various forms of a neurosis which is transmitted, and I am inclined to think that the increase of insanity at the present time depends to a certain extent upon such transmission.

I would definitely say that mental disorder reaching the line of insanity is to be compared with highly specialised mental capacity—with genius, if you like—and that this is not at all likely to be passed on. The poet, or the distinguished statesman, rarely has similarly gifted children. The lunatic may have defective children, and if the mental disorder is of a grave type, and if the children have been born after there has been definite mental breakdown, idocy rather than lunacy is to be expected. I feel some hesitancy in dogmatising on the relationship between genius and insanity; the subject has been so frequently handled that I fear little that I could say would add to your knowledge. But I am more and more struck by the fact that any individual who has become markedly conspicuous along any very definite or specialised line has a distinct tendency to transmit not that special ability or capacity but an instability which may lead to mental disorder of one type or another. I would go so far as to say that special capacity or genius,

whether it be on the mental or even muscular side, is associated with danger. I have seen the neurotic disposition show itself in the descendants of highly distinguished athletes, inventors, poets, statesmen, and the like. The tendency of gifted parents either to have no children at all or to have neurotic children is recognised. It is not unnatural, and certainly follows the lines of Darwin's observations, that no great special or individual capacity is transmitted. The variation of species, if it has originated by slow additions or slow modifications of existing bodies, must have been associated with transmission of extraordinarily minute changes, and one is more and more convinced that specific changes have not been by leaps and bounds. It is probable that any qualities that are transmitted from parent to child will be small; you do not get a poetic child of a poetic father, but you would get a child with sensory or intellectual instability, and an undue tendency, perhaps, to emotional display. In fact, tricks of body (extra fingers) and tricks of mind are much more likely to reappear in the children than are the great and marked characteristics. I think most of us recognise that very slight habits are conspicuous by their reappearance in a second or third generation. It is thus, too, with some mental tricks. For instance, I personally have been very much impressed by the transmission of special forms of handwriting. Thus a mother writing a bad hand and a father writing a good one, it has been my

frequent experience to find the sons following the type of writing of the mother, the daughters that of the father. And in some such cases the characteristic writing has been very marked, although the children have been brought up away from home almost entirely.

In one very interesting case a man, the son of an insane mother, himself sane, married and had a son who was markedly neurotic. He lost his wife, married again, and had a daughter who exhibited similar symptoms of nervous instability to her half-brother. The mothers were both apparently healthy.

Now as to some of my experience in relationship to inheritance and the transmission of neuroses. I have had opportunities of seeing children of an insane mother, a mother who, even during her insanity, lived with her husband and bore children. I have known those children grow up, at all events into adolescence, without any sign of mental disorder. They have been somewhat unstable, that is emotional, given, perhaps, to infantile rages, predisposed to variations in temperature with but slight cause, with a tendency to dreaminess, and occasionally with certain other minor nervous symptoms. I have on the other hand seen children who have been born of a mother who has suffered from puerperal insanity, who, therefore, has not developed the insanity until after the birth of the child, but who yet—if I may refer once more to my simile of the mycelium of the fungus—was potentially

insane, if not actually insane, during the pregnancy. I have known such children come into the world not insane, but with marked tendency to convulsive seizures, leading ultimately to epilepsy and to moral defects of one kind or another. These individuals are very often good examples of the a-social tendency to the anti-social side of mental disorder. The children of an insane parent may tend rather, as I say, to emotional instability and to moral defect than to actual intellectual want, or may be normal in all ways.

Undoubtedly a certain number of idiots are the result of insane parents, but my experience is that a very large percentage of idiots have no distinct insanity in their ancestors. Just as in the common chemical experiment it is shown that two colourless solutions when mixed may produce a black solution or precipitate, so it has been my constant experience to find that when a family consists of several idiotic children the parents have not, either of them, been insane, but have, on the other hand, been highly neurotic, or have been peculiar in one way or another, so that without ever having been considered insane, they have been looked upon as unstable and the result has been weak-minded progeny. Doubtless, sooner or later, one may be able to recognise what the types are which, when united, produce such disastrous results. I should give as my experience, too, that a child begotten of a degenerating parent—one, say, broken down from

alcoholic excess, from general paralysis of the insane, or from some senile disorder—would very likely be feeble-minded, immoral, imbecile or idiotic. I have a certain number of special instances in which I have known the result of impregnation by a general paralytic father to have been an idiotic child. It is dangerous, however, from a few individual cases, to generalise. Though I do not expect the insane parent to have an insane offspring, yet, as many insane people belong to a specially unstable class, I find the offspring of the insane or highly neurotic develop certain special forms of nervous disorder.

It will be my duty later to point out special forms of mental disorder which, in my experience, have been clearly related to insane inheritance. It may be said in passing that it is fully recognised that brain tumours, general paralysis of the insane, and many cases of senile dementia are little or nothing to neurotic inheritance; while, on the other hand, it is manifest that certain forms of delusional insanity, moral insanity, and the insanity of obsessions almost invariably have inheritance of insanity, or allied states, as a partial cause.

We have always to bear in mind, when we meet with insanity in children, that besides inheritance there is association. It is quite certain that the association of an insane parent with children may be extremely dangerous. I have seen very clear and distinct examples of the *folie à deux*. Take the following. A mother is left a widow with two

children and a very small amount of money to live upon. She has to change her residence and lives in a poor and meagre way. Avoiding the expense of entertaining friends she and her children live absolutely alone. She gets morbidly suspicious about them and about everybody in the neighbourhood, begins to suspect people of talking about her, of interfering with her, and, perhaps, tampering with her food. This is slowly borne in upon the young children, who in due course develop similar delusions. That, of course, is an extreme case, but it bears out what one wishes to impress upon you, that the association of the insane parent with the child may have a dangerous effect upon the mental stability of the child.

Again, it is not an uncommon experience for me to be consulted about the daughter of some elderly widow who has died after a prolonged mental illness. The daughter has devoted herself body and soul to this mother who has been a chronic or paralytic dement. In due course, after the death of the mother, the daughter begins to wonder whether her mother's symptoms are not reappearing in herself, and it has been not an uncommon experience for me to see such a daughter mimicking to a great extent the symptoms of her mother. Expectancy and association have a great deal to do with heredity.

It has been thought that there is a great danger of transmission of the suicidal tendency, and I would put it in this way: that I have histories of families many members

of which have committed suicide, and in many cases the suicides have occurred in different parts of the world and under different conditions, and apparently without any knowledge of the occurrence of suicide in any other members of the family. This, of course, may or may not be quite accurate. At all events, I have known families in which suicides have been common. Such families undoubtedly belong to the unstable, to the neurotic—that is, to those who are unduly sensitive and unduly emotional. I say that probably there is a tendency to transmit not necessarily melancholia, but emotional states which readily lead to melancholia; and so people who are unusually sensitive and unusually emotional react too readily to painful surroundings and the tendency is to suicide. That definite concrete ideas or delusions should reappear apart from collusion seems to me at least improbable, yet I have had several instances like the following. I was consulted about a girl, aged 20 years, who, being sleepless and depressed, accused herself of the unpardonable sin. After some weeks she improved and finally recovered. Then her father, a bright and prominent business man, called on me and said that for years he had been convinced that he was "the man of sin," that he had committed "the unpardonable sin," and there was no hope for him. He, being convinced of his doom, had borne it without a word to his family and he was horrified to find its reappearance in his daughter. It is difficult to explain this case, though I

should say that a family in which unpardonable sin is talked about and thought about is sure to be impregnated with depressing religious views, which tend to a scriptural interpretation. And thus I would explain the occurrence of a similar idea in a child and in a parent.

Undoubtedly, although one does not often get the fully developed similar delusion in parent and child, I have seen such cases as the following: A father consulted me about his daughter, saying that she had morbid dreads about trains, about heights, and about being in public places. He said it was very alarming to him, because he himself had similar feelings all his life. That a nervous unstable person should have these dreads is common. I am constantly in the habit of seeing children who, by the time they are 12 or 13 years of age, have dreads of heights, and of trains, and fears of crowds or of confined places. They belong almost invariably to neurotic and possibly insane stock. That father and daughter should have such ideas is merely saying that under similar conditions similar feelings are similarly interpreted. This bears upon another point which I think is of value and importance. It is, that though these single isolated delusions or ideas may occur in a large number of neurotic people, they do not tend to further mental disorder; necessarily they resemble in fact the stammer or trick in speech, or facial movements which are so common among the neurotic. There may be a single dominant idea, which

recurs but does not lead to further disorder. The person with a stammer may go on all his life stammering, and this may be corrected to a certain extent. And in the same way there are many persons who have mental stammers, if I may use the term, and yet who do not become more insane. In such cases I have been often asked as to the danger of marriage. And I admit that I almost invariably say, "Well, it is quite possible that you may have children who will experience similar feelings to those from which you suffer. If you find them so intolerable to yourself pray warn your children as to the danger of their possessing them. But otherwise I do not think you need be afraid: that is, you need not be afraid, if the child be a daughter, that she will break down with puerperal insanity, or if he be a son that he is likely to develop general paralysis."

Allied to what I have just said, I would wish to make clear my belief that people belonging to a neurotic stock, people who are likely to transmit the neurotic tendency to their children if they become insane, have certain definite peculiarities. I have observed that it is common for many of them to have obsessions or monomanias, if one may still use the term; moral and sensory, rather than intellectual defects. But besides this there is a great tendency to develop hallucinations of the senses. I have sometimes felt inclined to say the neurotic are more likely to go out of their senses than out of their minds. Delusional insanity associated with hallucinations of hearing, sight and of the

other special senses is common among neurotics. Then it is noteworthy that the person who is of very insane stock is much more likely to break down at certain periods of life. And this, again, is an important point when we are considering the question of the increase in the numbers of the insane. It is pretty certain that a large number of the patients who are now described as suffering from dementia præcox belong to neurotic stock. It is thought that those coming of neurotic stock are more liable to break down under what may be called physiological stress; that with adolescence, with child-bearing, with change of life they are more likely to become insane. Next, those belonging to strongly nervous stock are likely to recover at least once, except those cases of quite early adolescent or developmental insanity. I have long been in the habit of saying that if a person had to become insane it was very much better for his prospects of, at all events, recovering that he should have had an insane parent. The tolerance of recurring attacks of very violent insanity in neurotic persons is extraordinary. I have known members of insane families who have had recurring attacks during 30 and 40 years, attacks of most violent mania or most profound melancholia, which have passed off, leaving no evidence of the tremendous mental storms that have raged. Readily upset as these neurotics are they seem capable of being reset as easily.

As to the question of inheritance in relationship to the

various forms of insanity, I have already pointed out that the types of delusional insanity are specially associated with a neurotic inheritance. I have also said that general paralysis of the insane, as a rule, has but a distant relationship to inheritance. I am inclined to think that with melancholia there is a greater tendency to transmission than with mania or with some other forms of insanity. In melancholia one has such a large amount of disorder, evidenced by changes in the body as well as by changes in the mind, that one is not altogether surprised to find that a tendency to melancholia runs not uncommonly in families. Again, this is of importance in connection with the question of increase among the insane. A large number of people who now live to 80 years of age, or even more, in asylums are suffering from melancholia. The weight of years is represented by melancholia in some families, and I have known some very distinguished families the members of which when they approach fourscore years exhibit signs of melancholia and end in mental gloom.

I here add some extracts from the Irish Commissioners' reports, giving the opinions of some of the asylum physicians. Taking the percentages seriatim it will be seen that during the decade the proportion of cases in which heredity was a factor in the causation shows a small increase.

Page 7.—So far as the figures at our disposal go, there is no ground for the idea that asylums are breeding places of insanity,

turning out every year thousands of patients technically "cured," but with the evil in the blood to beget an infected progeny. No facts have come to my knowledge to warrant such a theory. I find no cases of patients descended from former inmates of the asylum who have been discharged as recovered. It cannot be denied that discharged patients may marry and propagate the disease, but a kind of corrective is supplied in public sentiment which condemns such marriages. The greatest misconceptions prevail as to heredity in its causative relation to insanity. The truth is, mental, like most bodily diseases, are not in themselves directly transmissible. We inherit not insanity but an ill-adjusted nervous system, which may easily collapse beneath an unaccustomed strain. That heredity marks out the lines along which the chartered curses of humanity find easy progress we must believe. (Graham.)

Page 13.—As a result of my observations here and elsewhere I am convinced that heredity is largely accountable for the prevailing insanity. I have frequently had insane parents and their children under treatment at the same time, and sometimes as many as three or four members of the same family. There is no doubt that in many instances the patients are descended from former inmates of the asylum who had been discharged recovered or improved. (Hatchell.)

Page 16.—Causes of Insanity.—The most prominent of these amongst those admitted has to be recorded as usual under the head of hereditary; 49 out of a total of 113 were assigned this as a cause. This probably does not represent all who might truly be added here—for various reasons we are not always able to arrive at the truth; nine were said to be caused by congenital defects. (Harvey.)

Page 19.—Heredity exercises its influence chiefly at adolescence, and when the exciting cause which has brought on the attack has

been removed the patient usually recovers, often marries, and has a family more or less liable to insanity, epilepsy, or some neurotic disease. (Woods.)

Page 21.—In connection with the question of heredity, which undoubtedly is one of the most important considerations in connection with the problem of insanity, it is a consolation to know, as the outcome of modern research, that the old pessimistic doctrine of a hopelessly handicapped posterity springing from insane progenitors is no longer absolute. (Nolan.)

Page 49.—We therefore find that a preponderance of the cases breaking out without well-marked exogenous cause in the time of late boyhood or early manhood are cases in which there is some strong hereditary tendency, or cases that are stigmatised from the first either by definite physical defects and malformations or by distinct nervous instability. These are, in other words, cases of constitutional or primordial predisposition. (Conolly Norman.)

Page 51.—With regard to the great question of heredity, it is easy to attribute an undue importance to this factor. I do not go so far as to deny, as some have done in modern times, that it is a factor at all, but I must point out that it is extremely indefinite. With a disease so common as insanity, if those who are hereditarily tainted constituted a distinct class, that fact would soon be patent to the world. But they do not, and this suggests that the incidence of insanity is scattered pretty generally through the population. It is true that the more carefully one examines into the family history of sufferers from mental unsoundness the more sure one is to come across cases of mental and other nervous diseases. But, on the other hand, when one has an opportunity of examining a family history, starting from a person who is not of unsound mind, one comes across mental and nervous disease quite in a similar way.

Indeed, as far as I am able to judge, facts bear out speculation, and everyone has insane relations, nearer, as the case may be, or more remote. Heredity would be much more often assigned to insanity than it is were it not for the reticence and the ignorance of relatives, but this would make little difference in the nature of the problem. Of course, no clinical observer of experience has failed to recognise families in which the liability to insanity is strong, and even tends to increase, till it terminates in the destruction of the stock. But in the majority of cases heredity can hardly be regarded as more than a disposition, common to our race, a little stronger in one than in another, and usually requiring some second or contributing agency to make it operative.

The statistics given in Table IV., under the heading of heredity, cannot be quite accurate, as may be gathered from what has been said above, but the tendency has been to give greater weight to heredity as the years went on, and no increase under this head has been noticeable. Now with regard to the specific question as to whether an appreciable increase in the number of the insane has been brought about through the discharge of recovered patients who have then propagated the species, reproducing their kind, I have only to say that neither the statistics of this asylum nor the facts of my own experience give any support to this notion. (Conolly Norman.)

Briefly to resume my opinion on the hereditary influence in producing insanity, melancholic states are much more likely to occur, I think, in families than are maniacal conditions; that of all forms of hereditary insanity, those associated with hallucinations of the senses and with definite obsessions and marked delusions are common; that with a strong neurotic inheritance there is a tendency

to moral defect as well as to imbecility and idocy; that consanguinity alone is not to be looked upon as very dangerous. I take it for granted that there is no such thing as inheritance of any function as such, but only the transmission of the physical capacity or predisposition to react in certain definite ways under certain definite stimulation. Thus, the power to learn to speak exists, but not the special tendency to speak in one language. Again, manual aptitudes may be transmitted, but there is no special transmission of power to perform definite acts in definite ways. The power of rapidly varying in relationship to a rapidly changing surrounding is represented by still more and more mobile organic compounds. The possession of such mobile combinations tends to instability; and, after all, we have to consider neurosis as nothing but a special form of instability. Such instability may be represented by brilliant genius or feeble inconsequence. As already pointed out, various neuroses are allied and may in some cases be interchangeable. Neurotic instability and tendency to insanity may depend on causes of physical weakness in a parent, yet unstable parents may have normal children. Atavism is not so marked in insanity as in some forms of physical peculiarity. It is not true that all forms of insanity are easily transmitted to the offspring. Healthy mating, too, may get rid of the tendency, or may reduce it to a slight tendency to tricks, habits, or manners as representing the neurosis in the parent. Strong neurotic inheritance will

often show itself in special forms of nervous disorder in childhood and adolescence, and, again, in anti-social or criminal tendencies.

TABLE XII. (Irish Commissioners' Report)

CAUSATION

—	NUMBER OF CASES.					
	Heredity.			Drink.		
	M.	F.	T.	M.	F.	T.
1884—1893	148	137	285	104	17	121
1894—1903	235	200	435	183	30	213
Increase	87	63	150	79	13	92
Increase per cent.	58·7	46·0	52·6	76·0	76·4	76·0
	Senility.			Anxiety, Worry, &c.		
1884—1893	8	14	22	52	68	120
1894—1903	18	28	46	30	62	92
Increase	10	14	24	22*	6*	28*
Increase per cent.	125·0	100·0	109·0	42·3*	9·6*	31·0*

* Decrease

LECTURE III

THE next generally accepted cause of insanity is alcoholic intemperance. That this is a potent cause, not only of actual insanity, but of nervous weakness and instability in the individual and in his offspring, must be admitted. And there is a generally accepted belief that the character of the alcohol taken to a certain extent affects the results, so that those who consumed the more potent alcoholic liquids suffer most nervously. It was till quite recently looked upon as an established fact that with higher wages and the increased consumption of alcohol, especially in its stronger forms, there was a definite increase in the pauper insane. This may have been true, but, as I shall point out later, the increase of insanity at the present time certainly bears no actual relationship to the consumption of alcohol. There is no doubt whatever that the people in England at present are far more temperate than they were. The returns as to the consumption of all forms of alcohol show marked reduction, and this probably is more marked in the lower middle and lower classes than among the higher classes. One would therefore have expected, if there is a direct relationship between

the consumption of alcohol and mental unsoundness, that there would have been a reduction rather than an increase of insanity at present. But, as I have said, this is not the fact. It is always dangerous to come rapidly to conclusions on comparatively slight statistics or general information. But I am bound to say that the very large number of total abstainers whom I see in consulting practice has made me wonder whether the complete and total change from moderate indulgence in alcohol to total abstinence had been altogether for the good, the mental good, I may say, of the race. It is well, however, to remember that a certain proportion of total abstainers are the descendants of alcoholic parents, who, having seen the disastrous results of excess in a parent, have determined at once to refrain altogether. Such individuals have already a weakened nervous system by inheritance, and, therefore, that they should become abnormally sensitive and tend to melancholy is not surprising. There are others who are total abstainers not having strength of will to be moderate. Such people are predisposed to break down mentally if unusual strain is thrown upon them. It is interesting to note that in Ireland, where certainly a considerable amount of alcohol is consumed, the medical superintendents of many of the asylums report that, next to heredity, they look upon alcoholic excess as the chief cause of insanity; a second cause is given by a large number of the superintendents—excess of

tea drinking. I am hardly prepared to accept this as a cause, yet it is right that I should mention it. There is no doubt that excess of alcoholic stimulants leads to direct alteration in the nutrition of the brain and nervous system, and also that, with the induced recurring alteration, there will be permanent nutritional changes which become visible in the whole nervous system. And these changes give rise to corresponding mental symptoms. The peripheral neuritis which is frequent in cases of chronic alcoholism, not seldom gives rise to cutaneous hallucinations; and gastro-intestinal disorder produced from the same cause may give rise to delusions. Thus, as a result of peripheral neuritis, chiefly affecting the limbs, it is a common experience to meet with patients—and I think I might say more commonly women—who complain that they are annoyed, electrified, or interfered with by some systematic persecution. In the second group one not infrequently meets with alcoholics suffering from some stomach or bowel affection who accuse persons of tampering with their food. It will thus be seen how readily delusions and hallucinations of the senses may be the direct outcome of chronic alcoholism. Continued excess leads to premature degeneration of the brain. Thus on one hand we have symptoms allied to delirium similar to those produced by general toxic influences, while on the other we have symptoms of premature senility. And the whole group of symptoms, which have been described more

recently under the name of Korsakow's syndrome, depend almost invariably on toxic influences and are most marked in alcoholic cases, and in senility with mental decay; Metchnikoff has suggested that toxins may be associated with symptoms of senile decay. The great similarity which there is between the mental symptoms occurring with senility and those depending upon chronic toxic infection is certainly noteworthy. We have alcohol as producing a definite set of symptoms, and we recognise that any mental disorder which may be produced temporarily may, if the toxic influence is continued, become established as a morbid habit, associated with organic change. I have also pointed out that chronic alcoholism leads to something more than mere toxic changes, to permanent decay of the whole nervous system.

The next, and a most important, question, especially in relationship to the increase of insanity, is the fact that alcoholic parents tend to have degenerate children. The children of chronic alcoholics often have most of the characteristics of the children of the highly neurotic or the degeneratingly insane; idiocy, imbecility, and moral insanity being most marked in the children of the chronic alcoholic. Dr. F. W. Mott recently published some very important observations in relationship to alcoholism and nervous disorder. Similar observations were recorded by Mr. W. Bevan Lewis. And I would sum up their results as follows. Dr. Mott considered that one-fourth of the

out-patients whom he saw at Charing Cross Hospital had alcohol as an efficient or coefficient in causing the bodily disease for which he was consulted. He believed that the grocer's licence tended to drinking among women, which produced many of the polyneuritic neuroses. Dr. Mott, however, goes so far as to say that he is of opinion that there is no proof that insanity itself would diminish to anything like the extent that is believed by many enthusiasts if alcohol were altogether abolished, and I have already said the same. Next follows the startling statement that the people who were in general hospitals and who consulted him in the out-patient room as a result of alcoholic excess, generally had visceral disease of some kind: that they had kidney disease, or liver disease, or some polyneuritis. On the other hand, at the asylum he found that those patients who were admitted suffering from the insanity of alcoholic excess, rarely, if ever, had the pathological signs generally associated with alcoholic excess. So that the post-mortem examinations of the insane from alcohol rarely provided cirrhotic liver or contracted kidneys. Various interpretations may be given to this. One is that some people are predisposed to be affected by alcohol along their digestive tracts, whereas others are more affected along the nerve lines. Others have thought that when one system was affected, whatever the cause might be, the other would be free, and that, in fact, the old belief was true, that if

a man had a bodily disease he would not have a mental one, or if he had a mental one he would not have a bodily one. The interpretation which I believe Dr. Mott prefers is this: that the people who become insane as a result of alcohol require quite a small amount of alcohol to upset their balance in comparison with others: that, in fact, they may be compared to those persons who, having had some severe head injury, ever afterwards are predisposed to be easily affected by alcohol. The fact, however, is an important one, and although one has not time to consider the question of alcoholism as written about by Dr. A. Reid, yet one has to recognise that there is such a thing as the survival of some alcoholics.

Having referred to the effect of alcohol in the production of insanity it is necessary to refer to the effects of alcohol when added to other causal conditions. I have very little evidence indeed to support the contention that general paralysis of the insane depends to any extent upon alcoholic excess alone. My own experience leads me to believe that from seventy to eighty per cent. of the cases of general paralysis which I see have suffered from syphilis. But in nearly all these cases the patients had led exciting, trying lives, that they were people who had indulged freely in alcohol and, as a rule, were large meat eaters. So that alcohol, when added to syphilis and to other abnormal or exciting conditions, may be considered as one of the causes of general paralysis of the insane.

I add some notes now from the Commissioners in Lunacy in Ireland in relationship to alcohol as a cause of insanity, as the difference of opinions among the medical officers is interesting, showing that there is no definite evidence of any real increase of insanity in Ireland depending on alcoholic excess.

ALCOHOLIC EXCESS.

General.—The proportion attributed to alcohol underwent some fluctuations during the decade, but in 1903 it was only 0·8 per cent. higher than in 1894.

Perhaps, as regards its effects on the future prosperity and health of the population the most important of these causes is intemperance in the use of alcohol.

As already stated, these statistics show that alcohol was found to have been the principal cause of the outbreak of mental disease in 15 per cent. of the cases admitted to asylums during the decade under review. This does not differ materially from the proportion in earlier years.

Page 2.—Alcohol is, no doubt, a frequent cause of mental breakdown. It is difficult to differentiate as to whether it is more frequently a cause or that excessive indulgence is a result of mental weakness or instability. (Lawless.)

Page 4.—Alcohol is an increasing factor in the causation of insanity, both by its acute and chronic toxic effect. (Mills.)

Page 13.—Alcohol is often suggested as being a fruitful cause, but my experience would not justify such a conclusion with regard to it. Undoubtedly the drink sold at fairs and markets is of the worst kind, and must have an injurious effect on those who indulge in it; still, it may be fairly claimed for the female population

of the district, and especially those residing in the country villages, that only very rarely indeed do they ever taste intoxicants. So rarely that I would be inclined to eliminate this as a cause of the insanity among them. (Hatchell.)

Page 22.—In close on 9 per cent. of the cases admitted there was the strongest possible evidence that alcohol was the main cause of the evil. (Nolan.)

Page 39.—I am of opinion that the next greatest cause of insanity is drink, and by this I mean not only persons become insane by drinking to excess, but also that many of the children of confirmed drunkards who are saturated with alcohol become weak-minded or insane. (West.)

Page 45.—Ether drinking still exists in this district (Londonderry), but to a much less degree of late. (Hetherington.)

Page 54.—The most frequent causes will be seen to be hereditary predisposition and alcoholic excesses. (Oakshott.)

Many years since, when the first of recent epidemics of influenza appeared, certain medical journals pointed out what seemed to be the immunity from this disease of the insane in asylums; but it was soon made manifest that the attendants and nurses who went into the outer world contracted the disease, and when once it was started in an asylum it spread as rapidly as it did elsewhere. I pointed out, on the other hand, that it was a very powerful starting point for neuroses, and it is now pretty generally accepted that it predisposes to such neuroses and may be either a predisposing or exciting cause. I believe that it has been a real and efficient

cause for inducing any increase which now exists, and I believe from my personal experience that it is and has been more powerful than all the other causes put together. I fear that I shall not have time to do more than point out the effect which influenza has had generally on the production of nervous disorders of various kinds. In the first place it is a constant cause of most obstinate insomnia; and as food and digestion are to the body, so is sleep to the whole nervous system.

It causes painful neuralgias and often disturbs digestion and nutrition.

But from these general statements I pass to the more concrete and definite ones. Influenza, like other fevers, may set up any form of psychopathy. Morbid mental symptoms may come on at any period of the influenza; it may start any form of insanity. Thus, the febrile stage may be followed by acute delirious mania of the worst possible type, or it may give rise to sleeplessness with melancholia, either of an active or passive kind. It may lead directly to dementia either of a permanent or transient type. There is, however, no specific form of insanity which can be called influenzal. I believe influenza produces effects on the nervous system comparable with those depending on strong neurotic heredity or alcoholic or senile degeneration. Therefore, after several attacks of influenza it is not uncommon for fully organised delusional insanity, with grandiose ideas or ideas of persecution, to

appear. In patients with strong neurotic heredity the first attack of insanity often follows influenza. In patients who have had previous attacks of insanity influenza may start a fresh attack, which may or may not follow the course of previous attacks. The mental disorder need have no relation to the severity of the attack of influenza. Though not a cause of general paralysis of the insane, yet it may be the exciting cause, so that a person who has other causes of nervous degeneration, such as syphilis and alcohol, after an attack of influenza may rapidly develop all the symptoms of general paralysis of the insane. In a few instances I have seen an attack of influenza modify an attack of insanity, and even relieve it. It is noteworthy that suicides increase markedly after an epidemic of influenza.

While fully recognising that the time at my disposal will only allow me the opportunity of bringing before you the most potent causes of mental instability and those which I think may, to a certain extent, be looked upon as causes of any increase of insanity which is found to exist, I feel that I cannot omit the question of sexual morality. I do not believe the present time is much better, or much worse, than the past, but there are certain considerations which I believe to be important, and to which I now refer. Marriages are, in England at all events, less frequent than they were, and with men certainly it is common for the marriages to take place

at a later age, so that many more men remain celibate up to forty years than formerly. This, of course, cannot be taken as a single and isolated fact. It is associated with the greater strain and tension required to make a position in life, and it is also associated with the growth of ideas of luxury which are present now both with men and women. But a still more serious fact is that after these marriages there are fewer children and also that mothers much less frequently suckle their offspring than they did. They look upon pregnancy and lactation as interfering with their busy social life, therefore they avoid these contingencies as much as possible. I believe sexual continence is possible and admirable, but it is constantly nowadays replaced by onanism, and though I do not attribute any serious increase of insanity to this head yet the dread of its results, which are so commonly enforced upon the public by quacks, has a very serious influence in producing a number of youthful hypochondriacs and a considerable number of suicides. Very few days pass but that I am consulted about the effects of onanism in the production of insanity. I do not believe that it produces more insanity than it did formerly, except that there are more celibates who indulge in the habit to a longer period and greater extent than if they married early. I am also frequently consulted about women whose whole mental character has become changed as a result of restriction of child-bearing and nursing.

On some, probably the majority of women in England and France nowadays, the feeling that in thus acting they are opposing Nature's laws does not weigh very heavily. But still, there are many women who feel degraded, and even sinful, in thus acting; and I know that many leaders among obstetric physicians recognise the neurotic woman who is produced by conjugal frauds. Though I should not say that this class adds very materially to the sum of the increase of insanity, yet I must speak very definitely as to my belief that it contributes a certain amount.

And now to proceed to the definite conclusion of the whole matter. I have already said that, in my opinion, there is an increase of insanity, that this has been steady in all classes of society, and that the reports of the Commissioners of England, Scotland, and Ireland all support this statement. So far as the lower orders are concerned the statistics are clear, but as regards the upper classes in the different countries there seems to be a decrease. To this I shall refer later. There has also been a slight temporary decrease in Scotland and England, but this really does not, I think, interfere with the pretty steady tide of increase. In England there is this year a decrease among registered or certified patients of unsound mind. But, as I have said, this is, I think, of very little value. For, especially in reference to the richer classes, whatever may be said as to the feeling

among the poor in relationship to asylums and certification, I believe there never was a time when the word "asylum" and the term "lunatic" were more dreaded among the well-to-do than at present. Among the causes for this increased dread doubtless is the growth by education of the feeling of the danger of inheriting mental disorder. If I have been able in any way to show that this dread is too dominant, good may result. The feeling undoubtedly exists that insanity is one of the most transmissible of all diseases, and this has weighed, and still weighs, heavily on the lay mind. They will ignore other forms of disorder, even though they may be somewhat serious, but they will not admit the existence of insanity in the family unless it is absolutely forced upon them. Anything that can be treated in a home of rest by Weir-Mitchell treatment, or by change of residence and travel, appears as nothing to their minds, but as soon as a patient has been certified they believe an indelible blot rests on the family, a blot which will have a serious influence upon the future, certainly of marriageable daughters. When I tell you that there are several thousand medical men in England who are willing to receive so-called mild mental cases into their homes, it surely shows how widespread this home treatment of nervous and mental diseases is. Therefore, when the Commissioners report a decrease in the certified insane in England, it, of course, has to be discounted very

seriously by the fact that the dread of asylums and the fear of certification act so strongly that many patients who had better be certified are sent into private care. The various bodies of Commissioners have felt it their duty to consider especially the question of this increase of insanity, and so far as possible to reassure the public that they, at all events, have no great fear of any serious increase.

And now I must proceed to details; and although I cannot expect to make the dry bones of statistics live, yet I will make such use of them as is necessary. In January, 1906, there were 121,976 certified patients in England, this being an increase of 2,150 on the year 1905. This rate of increase is less than that of the average increase for the previous five years, which was an average yearly increase of 2,807, the average increase for the ten previous years being 2,554. The chief decrease was in the numbers of private patients in licensed houses. It is important, as I shall have to repeat later when considering the apparent increase of the poor in asylums, to recognise that many more patients are now sent to asylums who formerly were retained in workhouses. Thus, nearly 50 years ago only 56·2 per cent. of the pauper lunatics were in asylums. This is a very important fact to remember, for recently in England, Scotland, and Ireland pauper persons of unsound mind of all degrees have been swept into the class of certified lunatics, and this class in future will not be so

efficient in adding to the numbers of the certified insane. The greatest increase is noticed in England in the metropolitan area and in the home counties. The lodestone of the capital attracts the weak even more than it does the strong, the failing in mind and morals become aggregated in the larger centres in increasing numbers. If we compare the returns of the certified insane in 1859 with those of 1906 the numbers are startling if not appalling. In the former year in England and Wales there were 36,762. Now there are 121,976, that is an increase of 231 per cent., while the population increased during that period only 75·4 per cent. The ratio of certified patients to the general population in 1906 is 1 to 283, that is, 35·31 to every 10,000 inhabitants, whereas in 1859 it was only 18·64 per 10,000. In passing, I may refer to the recovery rate, which I regret to say does not in any way encourage one to think that the present humane methods of treatment have greatly increased the numbers cured. In an article "Statistics of Insanity," by Sir Charles Hood, from 1846 to 1855, he refers to the percentage of cures being quite as high as at the present time. He gives the aggregate of the hundred years ending Dec. 31st, 1855: admitted into Bethlem Hospital, 19,373 patients; cured, 8,341, a percentage of 43·5. From 1846 to 1855, 2,726 were admitted, and during that period the high percentage of recoveries was 54·19. It is well, of course, to remember that the patients admitted into Bethlem Hospital were

and are of a special type, no chronic, or incurable or epileptic cases being received. But even taking that into consideration, the rate of cure of the last return is higher than it was over 100 years ago, it is certainly no higher than it was 50 years ago. This all points, I think, to the fact that only a certain number of insane are curable under any conditions whatever, and that the idea of any universal system of treatment greatly increasing the recovery rate is altogether misleading. The Scotch Commissioners this year give an account of the increase since 1858, in which year there were 5,824 certified patients, whereas on Jan. 1st, 1906, there were 17,450, showing an increase in nearly half a century of 11,606. This increase is confined to the general public asylums, there being a decrease of 624 in the residents in private asylums. A very large increase of patients in private dwellings is noted, and this is a point of special interest in Scotland, where the system of boarding-out is carried on largely and successfully, and certainly more than is possible in England. In Scotland during the last three years there has been a decrease of insane persons in proportion to the population, and this is the first time such a thing has occurred since 1858. During the whole period the lunatics have increased 200 per cent., while the population has increased only 56 per cent. Among the causes of total increase of admissions are a large number of senile cases from infirmaries, but this must not be taken to connote a

general deterioration of the race. In Scotland, as elsewhere, the struggle for existence renders it more difficult for the poor and healthy to maintain the feeble or insane in their own houses, the residence of such people interfering with the wage-earning capacity of the family, so that it is altogether easier for them to contribute something towards the maintenance of a patient in an asylum than to keep him at home. And with the steady development of treatment of weak-minded and feeble people in cottage homes the demand has created a supply that proves, at all events in the north, to be quite satisfactory. It is noteworthy that—whether there is an increase in other forms of mental disorder or not being doubtful—there is in Scotland as well as in England a marked increase in the number of general paralytics. Not a quarter of a century ago the numbers were quite small; now they are large and increasing. And what is more astonishing is that the increase is more marked and more recognised in Edinburgh than in Glasgow, though, as a rule, one finds more general paralytics in big manufacturing cities than in smaller residential capitals. Another anomalous point among the general paralytics of Scotland is that the increase has been more marked among women than among men. The increase of general paralytics, then, is one of the distinct causes of increase of insane individuals. The Irish Commissioners this year have made a special report on the alleged increase of insanity. I

have already had occasion to quote from this and it will be necessary now to refer to it more in detail. The contribution has the advantage of giving the individual opinions of the superintendents of the various asylums, and also the conclusions arrived at by the Commissioners themselves. I may briefly, before referring to the detailed reports of the Commissioners, give their conclusions, which were: That the apparent increase is due chiefly to accumulation, and that the increase is more apparent than real; that patients live longer, being retained longer in many cases (in many cases all their lives) in asylums. In reference to this I might quote Dr. William Farr, who thus expressed the same idea: "There may be ten times as many lunatics in civilised as in barbarous countries, and not because the tendency of insanity is greater but because the lunatics live ten times as long as they did." The increase depends, too, on the withdrawal of a large number of quiet, harmless, senile, or weak-minded persons from their homes. This is shown by the fact that the general census returns showed the number of such persons to be very greatly reduced. Doubtless the drawing of the healthy and able-bodied to the cities and to the colonies has also tended to the removal of the more feeble to the asylums, as there were fewer people personally able to look after them. The unusual increase pointed to some special causes, and the Commissioners have given their report under five headings. These are considered as

heredity, including consanguineous marriages, malnutrition and bad diet, the inordinate use of stimulants, and mental strain due to agricultural depression. These returns provide very interesting matter for further consideration. One effect of emigration has been that the healthier and younger go abroad and the less fit and the older remain behind; and, what is certain, quite a considerable number of those who break down in America are repatriated as insane, so that the healthy remain there, whereas many of the feeble are returned to swell the list of lunatics in Ireland. This is made clear by the fact that in the 30 years between 1871 and 1901 there was no increase in the proportion of insane in reference to population between the ages of 20 and 55. There was, however, a very large increase in the ratio of insane to population in the old-age period. In Ireland the amount of insanity in proportion to the population is greater in the most remote rural districts, whilst in the busiest towns the ratio of the insane to the sane population is lowest. This is due, of course, to the exodus of the healthy from the country places. Even the first admissions to asylums are misleading, as these represent failures to cure after residence at home; so that a very large proportion of people who come under the head of "first admissions" after all have been insane for long periods before they are sent to an asylum. It has often been said that the only way we can judge of the relative increase of the insane in

a country is by reckoning the number of first admissions; and the Commissioners in Lunacy have, of recent years, taken special pains to show the proportion of first admissions to other admissions, and I add to this paper certain tables from the Commissioners' Report. It is an interesting point, and one not easy to explain, that the Irish in America produce a much larger proportion of insane patients than any of the other emigrants. I remember being very much struck when in America with the very large numbers of physical, social, and mental failures represented in the asylums and infirmaries near New York which the Irish provided. This has, of course, been explained by the instability of the Celtic temperament, but that hardly seems sufficient. Doubtless there are other contributing causes; among others, the home-loving instinct of the Irish is very characteristic, and also their tendency to wander. And a tendency to wander is pretty frequently recognised as an early symptom of mental disorder. It might be interesting to note that similar conditions exist in America.

Before proceeding to my general summary and conclusions I feel that I cannot do better than quote from Dr. Mott on the general pathology of insanity:—

> A pathology which only considers the morbid macroscopic and microscopic anatomy is useless; there must be a correlation of the clinical and psychological symptoms with the morbid physical, chemical, and structural changes of the organs and tissues of the

body, particularly of the brain. No one who has had any practical experience of insanity can come to any other conclusion than that the majority of people become insane because there is an inborn tendency in their nature. In fact, the pathology of the causation of insanity of an individual resolves itself into a study of his personality—what he was born with and what happened to him after birth. Numbers of factors may conspire or combine after birth to bring out this innate tendency to mental derangement. It may be asked, Can a stock which is sound mentally become unsound by its members being subjected to an unfavourable environment? Many people deny the possibility of mutation in the germ plasm, but as the nervous system is the latest and most complex and differentiated tissue in structure and function mutations and variations may occur in consequence of favourable or unfavourable environment. The commingling of the germ cells of two stocks of suitable or unsuitable temperaments may by a happy or unfortunate chance produce sporadic genius or sporadic insanity.

And now to proceed to my general conclusions. I do not find there is any real ground for alarm in the increased number among the insane. There are many reasons for the apparent increase, as I have already pointed out. I do find there is an increase of insane persons suffering from general paralysis of the insane and from the various forms of senile dementia; but I do not think there is any evidence pointing to alcoholic excess as at present causing any real increase. I think influenza, on the other hand, has had a very serious effect in predisposing to nervous instability, which predisposes to neurosis generally, and to insanity

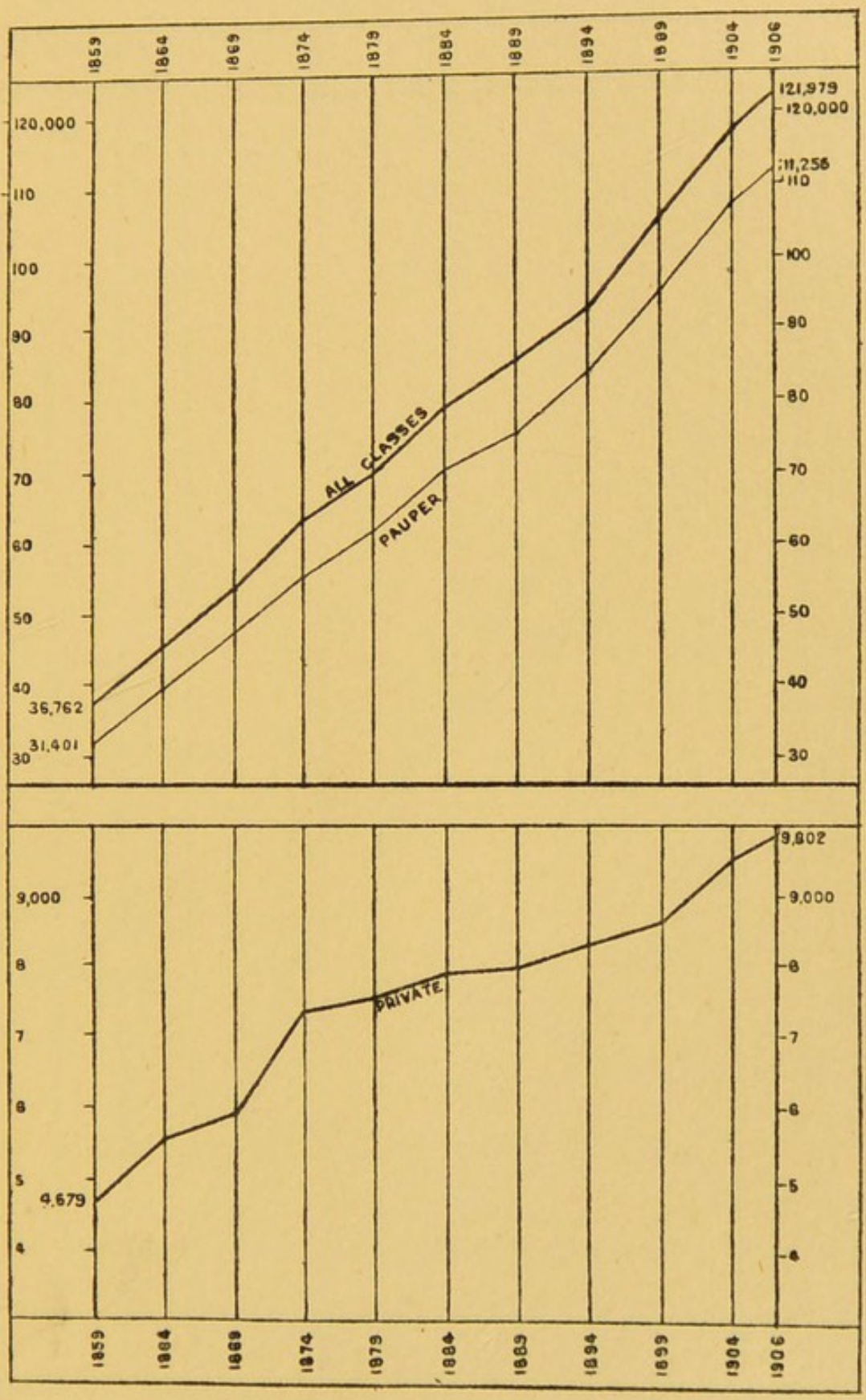
undoubtedly. And though general paralysis and influenzal infection may be removable causes of insanity, I cannot believe that any benefit will follow any uniform medical treatment of insanity as one disease. That the time is approaching when general paralysis may be found to be a curable disease is possible, and that Dr. Ford Robertson is on its track we hope—and we may learn a great deal from the clinical study of the forms of insanity depending upon micro-organisms I also admit, and it will be a great advantage to the world at large, and to the medical profession in particular, when there is greater convenience for the study and investigation of mental disorders. It is, however, extremely difficult to understand how the huge mass of chronic insanity is ever to be dealt with. England is becoming more and more crowded and therefore is less able to have detached colonies where the weak-minded of all classes and both sexes can be segregated. That very great good results from the early treatment of the insane is shown by the experience of Dr. J. Carswell at the Glasgow Hospital for the Insane, where they have two wards specially adapted for the reception of acute cases of mental disorder, and it is remarkable that a very large proportion of these are cured or recover and are allowed to go home without having to be sent to an asylum. Altogether, of 1,027 admissions into the hospital, 583 had to be sent to asylums, 415 were discharged well, and 30 remained under treatment. Of those certified 164 had had

previous attacks and only 364 represent acute fresh cases. The number represents the annual production of pauper lunacy. The proportion per 10,000 of population for the year was 5·87—that is, less than 6 per 10,000 of the population became pauper lunatics in 1905-06. When viewed in the mass the statistics of pauper lunacy look alarming, but such a proportion occurring in a large industrial population like that of Glasgow is not a real cause of fear. It is noteworthy, too, that there is no increase in persons of the young and the middle ages, the increase being greater after the age of 60. There has been no increase of late years in Scotland, and Dr. Carswell is hopeful that the high-water mark has been reached.

So far, then, I have brought my subject to a close with the conclusion that there is an increase among the insane, that it is not alarming either in number or in quality, that many other causes besides inheritance contribute to these mental catastrophes. And I feel that there is still scope for treatment of many cases of mental disorder perhaps on different lines from the past. But with all hope one must mingle caution.

CHART NO. 1, SHOWING TOTAL NUMBER OF INSANE PERSONS IN ENGLAND AND WALES REPORTED TO BE UNDER CARE ON THE 1st JANUARY OF EACH YEAR SPECIFIED, AND OF THOSE IN THE PAUPER AND PRIVATE CLASSES RESPECTIVELY.

(FOR RATIOS SEE CHART NO. 2.)



Weller & Graham, Lith. London

CHART NO. 2, SHOWING COMPARATIVE VARIATIONS IN THE PROPORTION OF THE INSANE IN ENGLAND AND WALES (AND OF THE PAUPER AND PRIVATE CLASSES RESPECTIVELY) TO TOTAL POPULATION, 1859 TO 1906.

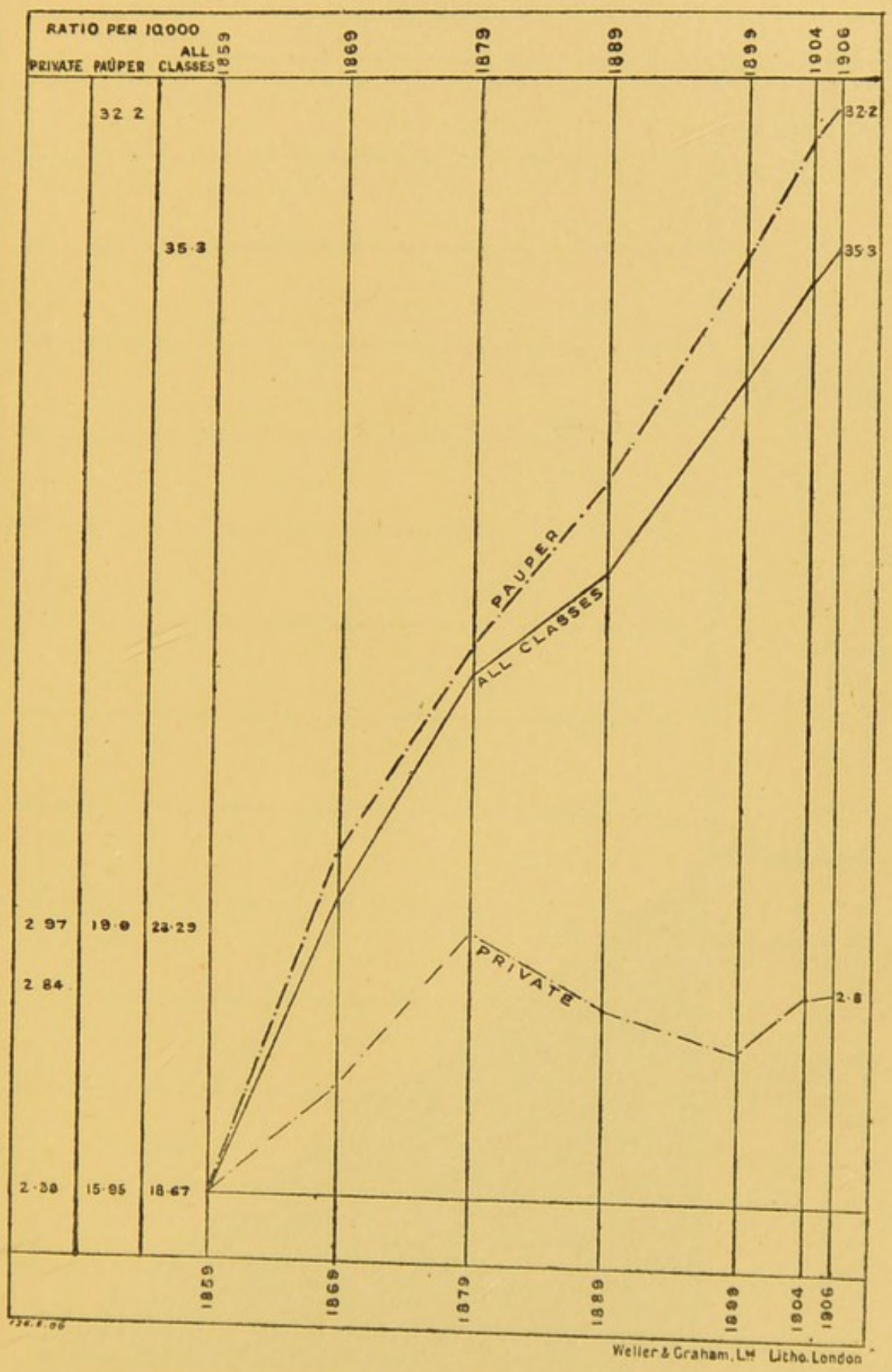
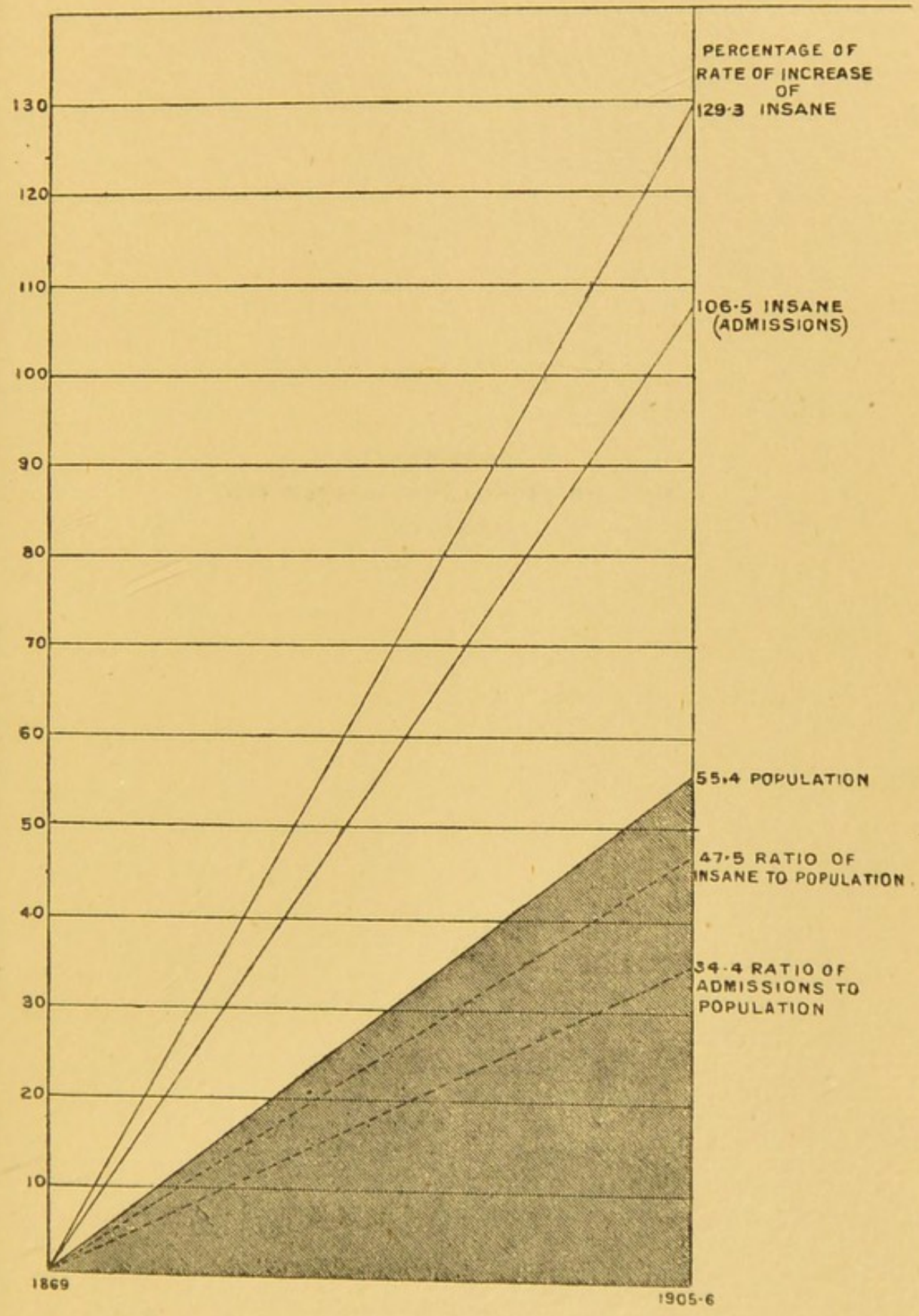


CHART NO. 3 TO ILLUSTRATE RATE OF INCREASE PER CENT. OF (A) POPULATION OF ENGLAND AND WALES, (B) OF INSANE COMMUNITY, (C) OF THE YEARLY ADMISSION TO CARE, (D) OF THE RATIO OF INSANE TO POPULATION, AND (E) OF THE RATE OF ADMISSIONS TO POPULATION.

(APPENDIX A, TABLES II & III.)

1869, 1905-6.



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