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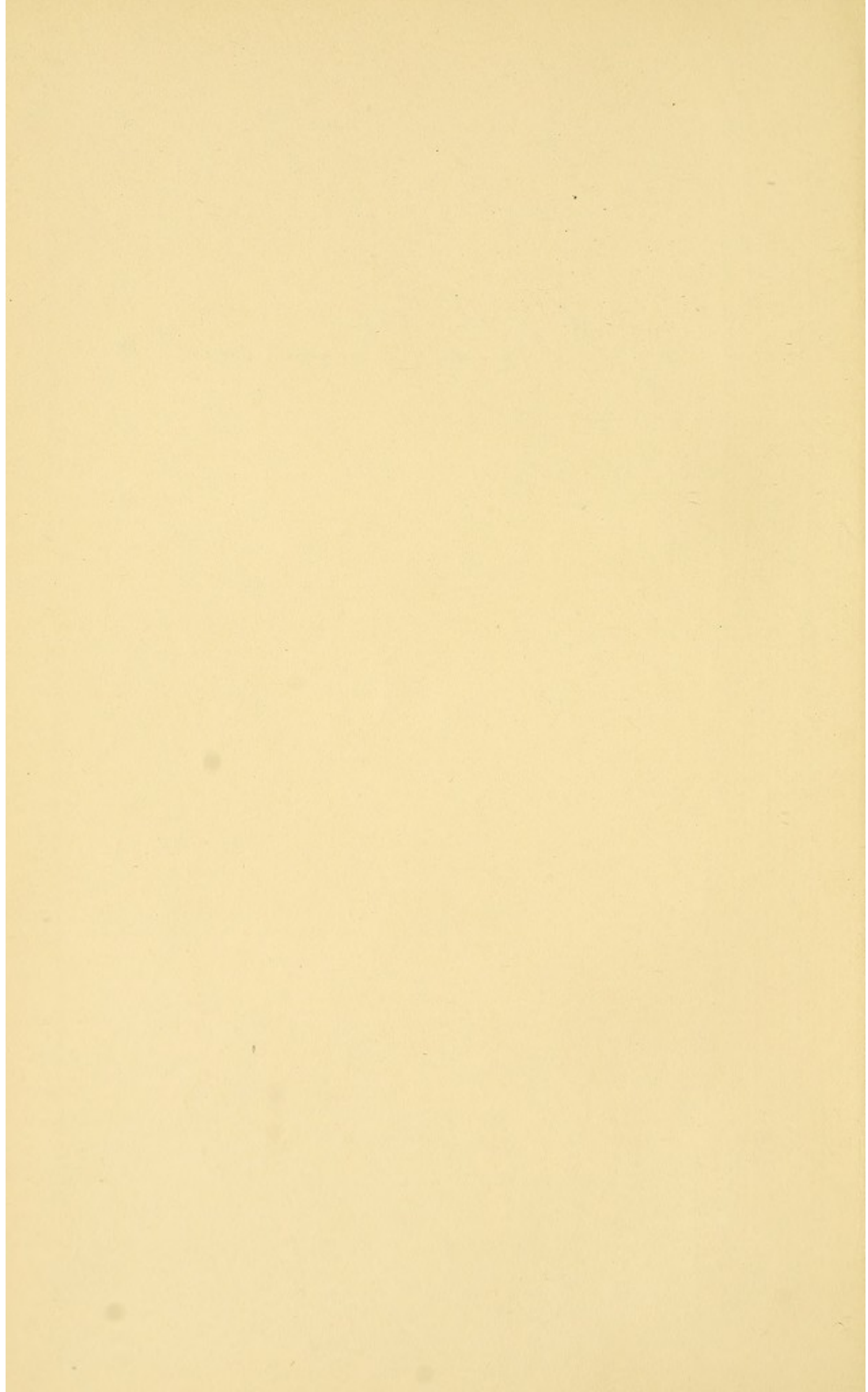
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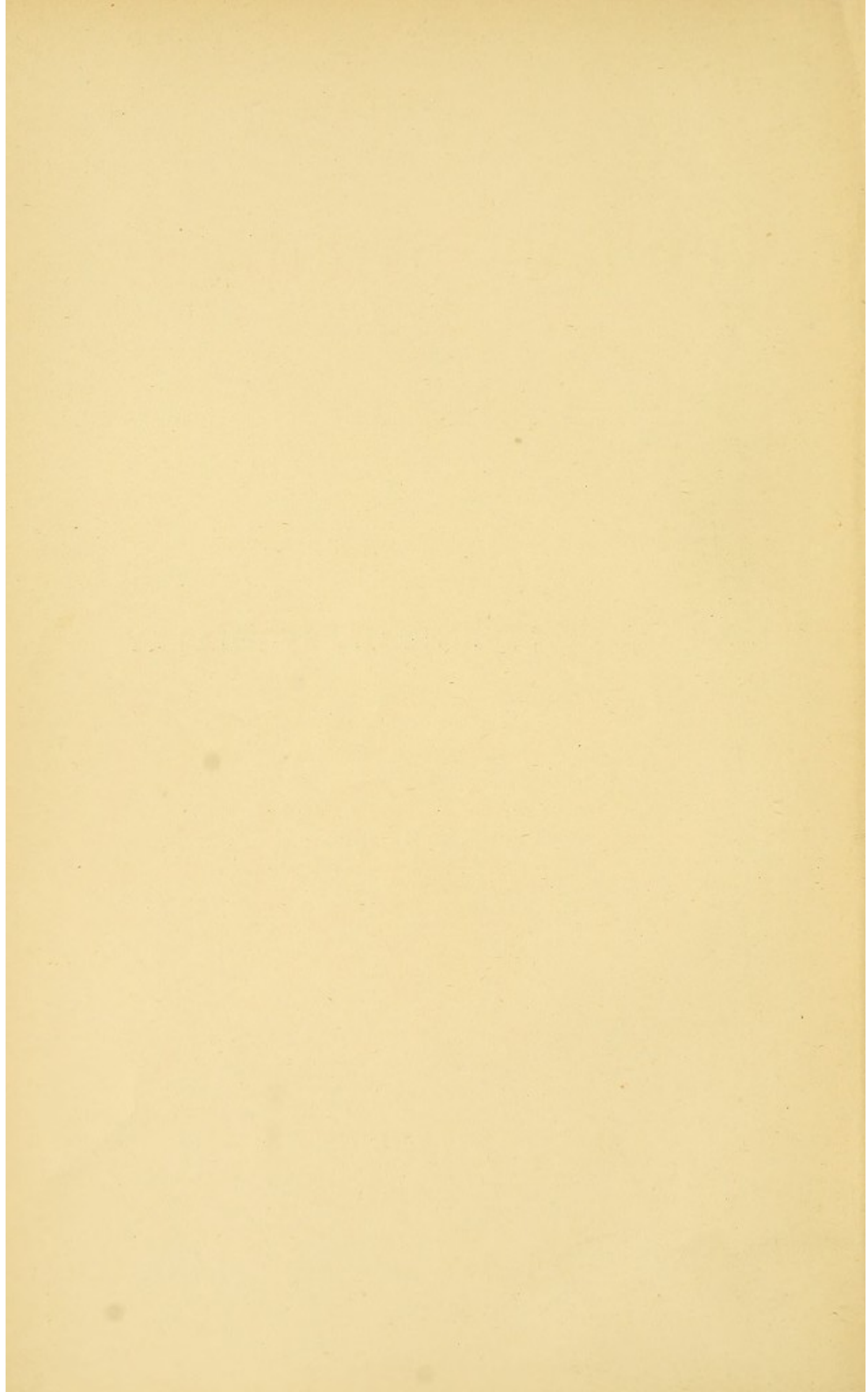
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Robert L. Moncure

Nov. 1904.



LECTURES ON CLINICAL PSYCHIATRY



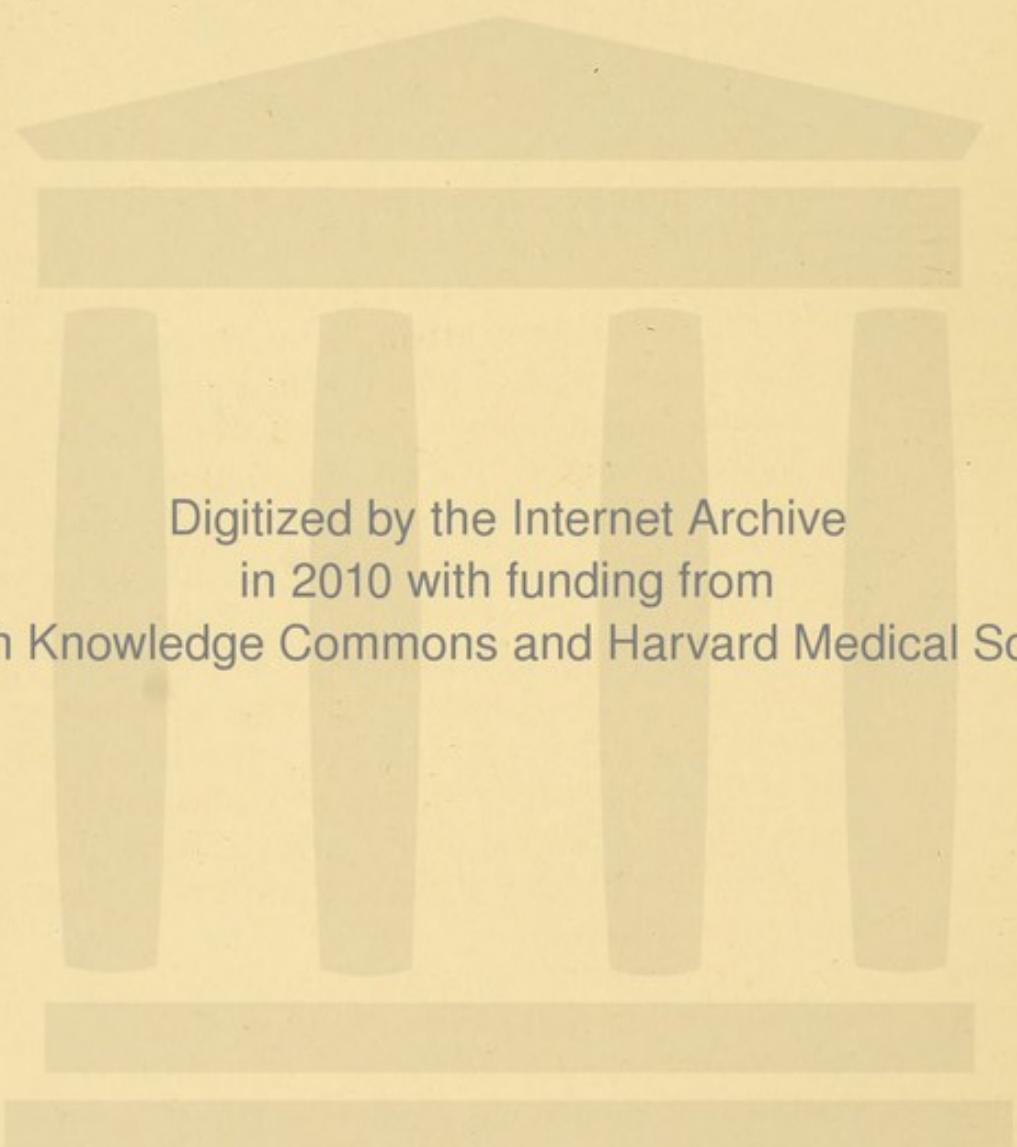
LECTURES
ON
CLINICAL PSYCHIATRY

BY
DR. EMIL KRAEPELIN
PROFESSOR OF PSYCHIATRY IN THE UNIVERSITY OF MUNICH

Authorized Translation from the German

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P R E F A C E

ALL those who have at any time given clinical demonstrations on disease must have felt the desire to impress more firmly on their hearers the remembrance of what they have seen than is possible in an ordinary lecture. After many attempts to arrive at this in some other way, I have now tried to preserve, in a measure, the impressions of a term's clinical work in the form of the lectures contained in the following pages. In my descriptions I have endeavoured, as far as possible, to follow the actual course of the lectures. Naturally, not only must this work give up all claim to the actual presentation of the patients, for which the student can only be compensated by personal experience in the hospital, but we must also forego the great help to teaching afforded by the assistant's little awkwardnesses and blunders, which so often serve to point out to the teacher the right method of instruction. On the other hand, the material can in this way be worked up more concisely, more systematically, and more completely than is generally possible in the hospital.

In these lectures I have always kept the diagnostic point of view in the foreground, being convinced of its fundamental importance, not only to our scientific ideas, but also as affecting the advice we shall have to give in our medical practice, and the methods of treatment to be adopted by us. In my opinion, what the student ought to learn in the hospital, besides the examination of patients, is not text-book knowledge, which he can acquire just as well, or better, at home, but how to turn his observations to account, and the careful judgment of any given case. These lectures, then, must not in any way be looked upon as a text-book of alienism. Their aim will be far better attained if they prove of some value as a *guide to the clinical investigation of the insane.*

The examples of disease, which for obvious reasons have been taken from entirely separate years, and some of which have been utilized elsewhere, do not profess in their brief outline to be scientific records. Nevertheless, each individual case is delineated with the greatest possible truth to life, while the diagnostic developments are almost entirely taken directly from notes upon clinical demonstrations. Inquiries as to the further history of the patients were carried on, as far as possible, up to going to press, and, for the most part, were only added after the whole was complete.

E. KRAEPELIN.

HEIDELBERG.

EDITOR'S PREFACE

No apology is needed for the reproduction in English of any of Dr. Kraepelin's works. In the Author's Preface the precise aim and object of these clinical lectures is definitely stated, and for excellence they may be compared to those of Sir W. R. Gowers on a different branch of nervous study.

In order that the subjects dealt with might be studied in regular sequence, I have constructed a table, placing together the subdivisions of each disease and the lectures in which they occur, so as to facilitate their continuous study.

The importance of observing the periodicity of nervous diseases through long periods of time—a fact insisted on many years ago by the late Professor Laycock, of Edinburgh, and published in his book on the "Nervous Diseases of Women"—is emphasized in these lectures.

Dipsomania is typically a "periodic disease," and when its cycle is annual the attack usually takes place in May or October; but years often elapse ere the victim becomes what is known as a quarterly toper. As this condition is only fully established in adult life, the "equivalents" in the previous history of such patients might prove interesting speculatively. This "periodicity" can also often be noticed in ordinary bodily ailments, and the usual day of many "neurotics" is a regular cycle, beginning with morning depression or morning activity, according as they are evening or morning workers.

The various forms of puerperal mania might advantageously be termed reproductive insanity, because gestation is a trying physiological experiment on any nervous system, and there is no period from its onset until the end of lactation at which the mental balance may not be disturbed.

These lectures are eminently practical, very little space being devoted to the shifting sands of metaphysics and pathology. Since their appearance, however, a somewhat more hopeful field in nervous or mental pathology has been opened up by the work of Drs. Ford Robertson and McRae, in associating general paralysis of the insane with a bacillus as a possible cause. Should

these observations and experiments and others in the same direction ultimately establish an etiological connection between such toxins and mental disease, then, judging from our clinical knowledge of the varying effects produced by different chemical toxins on the nervous system, and occasionally by the different effects caused by the same poison on different constitutions, we must be prepared to explain the phenomena produced by other toxins in a very liberal spirit. The translators have endeavoured to do their work faithfully, avoiding as far as possible the introduction of new technical terms, and where any have crept in, it is hoped they will be readily understood from the context. The nomenclature of the diseases adopted in the text differs widely from that met with in English books on the subject; but any little difficulty here will be easily understood by a study of the table where the contents are classified—for example, the phases of the disease termed “maniacal-depressive insanity” only groups together phenomena which have long been recognised. Sir J. Batty Tuke, in his work on the “Insanity of Over-exertion of the Brain,” speaking of these states, says: “Further, it must be remembered that, although in many cases the character of depression or exaltation is maintained throughout, a large class exists in which it is impossible to say whether they are melancholic maniacs or maniacal melancholics.”

No such practical lectures on this subject have appeared in recent years, and it is hoped that they may prove of interest and service to the general practitioner; for it is he, in many instances, who has the first trouble and anxiety with acute mental ailments, and the teaching in these clinical lectures should enable him to be more ready for such emergencies.

Though, as specified by Dr. Kraepelin in his preface to these lectures, the question of diagnosis always occupies the first place, that of treatment is never ignored. I should like to point out in particular the use of saline solutions and transfusions, which are recommended in acute asthenic states. It is of interest that this plan of treatment has occurred to Dr. Rutherford Gilmour, and has been practised by him with most gratifying results, so far.

THOMAS JOHNSTONE

32, PARK SQUARE, LEEDS,
AND
ANNANDALE, ILKLEY.

April, 1904.

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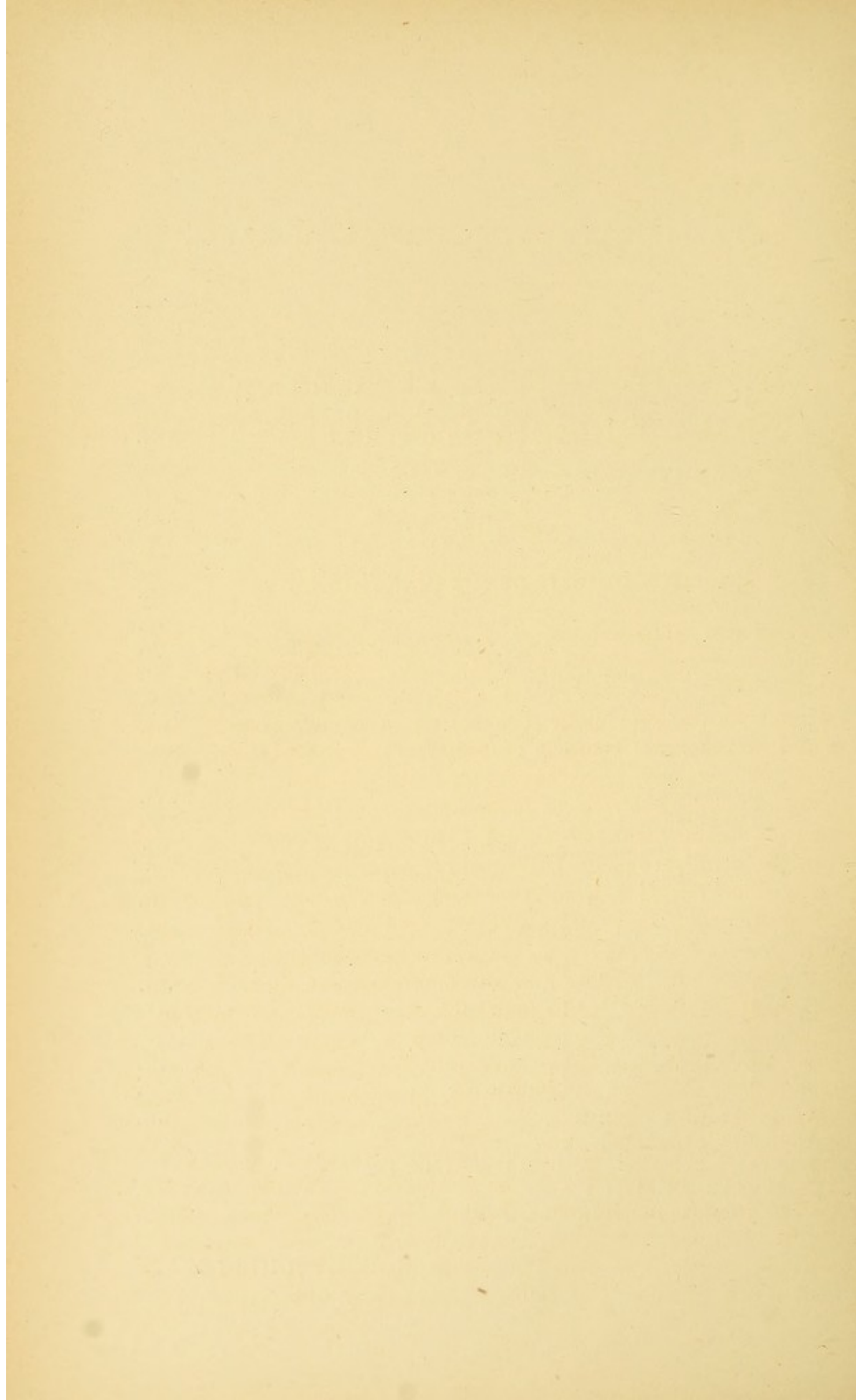
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T. JOHNSTONE.



INTRODUCTORY LECTURES ON CLINICAL PSYCHIATRY

LECTURE I

INTRODUCTION : MELANCHOLIA

GENTLEMEN,—The subject of the following course of lectures will be the Science of Psychiatry, which, as its name implies, is that of the treatment of mental disease. It is true that, in the strictest terms, we cannot speak of the mind as becoming diseased, whether we regard it as a separate entity or as the sum total of our subjective experience. And, indeed, from the medical point of view, it is disturbances in the *physical foundations* of mental life which should occupy most of our attention. But the incidents of such diseases are generally seen in the sphere of psychical events, a department with which the art of medicine has dealt very little as yet. Here we are not so much concerned with physical changes in size, shape, firmness, and chemical composition, as with disturbances of comprehension, memory and judgment, illusions, hallucinations, depression, and morbid changes in the activity of the will. With the help of the ideas you have derived from general pathology, you will usually be able to find your way in a new department of medicine without any serious difficulty. But here you will be utterly perplexed at first by the essentially peculiar phenomena of disease with which you will meet, until you have gradually learned to a certain extent to master the special symptomatology of mental disturbances. Of course, you will sometimes have met with isolated conditions of mental disease in everyday life, or in other hospitals—intoxication, fever delirium, and delirium tremens, or even imbecility

and idiocy—but they may have impressed you more as strange and incomprehensible curiosities than as adding to your stock of medical ideas.

Insanity works a change in the mental personality, that sum of characteristics which, to our minds, represents a man's real being in a far higher degree than his physical peculiarities. Hence, our patient's whole relation to the outside world is affected in the most comprehensive way. The knowledge of all these disturbances is a fruitful field for the investigation of mental life, not only revealing many of its universal laws, but also giving a deep insight into the history of the development of the human mind, both in the individual and in the race. It also provides us with the proper scale for comprehending the numerous intellectual, moral, religious, and artistic currents and phenomena of our social life.

But it is not these variously branching scientific relations to so many of the most important questions of human existence which make a knowledge of psychical disturbances indispensable to the physician; it is rather their extraordinary *practical importance*. Insanity, even in its mildest forms, involves the greatest suffering that physicians have to meet. Only a comparatively small percentage of mental cases are permanently and completely cured in the strictest sense of the word. And the number of the insane, which will hardly be exaggerated if we estimate it as amounting at the present moment to 200,000 in Germany alone, is apparently increasing with the most unfortunate rapidity. This increase may depend, to a great extent, on our fuller knowledge of insanity, on the more highly-developed care of the insane, and on the increasing difficulty of treating them at home, and so may be only apparent. But, considering that from one-quarter to one-third of the cases admitted to our asylums are due to the abuse of alcohol or to syphilitic infection, and that these are causes of which the extension is certainly not diminishing, we cannot but suppose that the number of the insane is increasing, not only in itself, but also in its proportion to the population. The growing degeneration of our race in the future may therefore still be left an open question, but certainly it might be very greatly promoted by both these causes.

All the insane are dangerous, in some degree, to their neighbours, and even more so to themselves. Mental derangement is the cause of at least a third of the total number of suicides,

while sexual crimes and arson, and, to a less extent, dangerous assaults, thefts, and impostures are often committed by those whose minds are diseased. Numberless families are ruined by their afflicted members, either by the senseless squandering of their means, or because long illness and inability to work have gradually sapped the power of caring for a household. Only a certain number of those who do not recover succumb at once. The greater part live on for dozens of years, imbecile and helpless, imposing a heavy and yearly increasing burden on their families and communities, of which the effects strike deeply into our national life.

For all these reasons, it is one of the physician's most important duties to make himself, as far as possible, acquainted with the nature and phenomena of insanity. Even though the limits of his power against this mighty adversary are very narrow, opportunity enough is afforded to every practical physician to contribute his share to the prevention and alleviation of the endless misery annually engendered by mental disease. Alcoholism and syphilis undoubtedly offer the most profitable points of attack, together with the abuse of morphia and cocaine, which so clearly owes its fatal significance to the action of medical men. Family physicians, again, can often help to prevent the marriage of the insane, or of those who are seriously threatened with insanity, and to secure a proper education and choice of occupation for children predisposed to disease. But it will be their special province to recognise dangerous symptoms in time, and, by their prompt action, to prevent suicides and accidents, and obviate the short-sighted procrastination which so often keeps patients from coming under the care of an expert alienist until the time for practically useful treatment has long been past. Even in those numerous cases which never become insane in the narrower sense, the physician who has been trained in alienism will have such an understanding of the recognition and treatment of psychical disturbances as will amply repay him for the trouble of his years of study. Even in my own experience it has happened very often that older physicians have regretted their defective knowledge of alienism, and complained that it was only in practical life that they learned how great a part is played, in the daily round of ordinary medical practice, by the correct diagnosis of more or less morbid mental incidents. I need hardly mention that, for various reasons, such a diagnosis is in

constant demand by public authorities, courts of law, and trade societies.

Of course, an intimate knowledge of Psychiatry, as of every other separate branch of medicine, can only be acquired by long and thorough occupation with the subject. Yet, even in a short time, it is possible to cast at least a general and superficial glance over the commonest forms of mental disturbance. Personal investigation and continuous observation of the greatest possible number of different cases are indispensable to this, and it is only too true that, even after one or two terms of zealous clinical study, there will still be many cases which the beginner is unable to interpret correctly by means of the knowledge with which he has been furnished or which he has acquired for himself. But one important advantage to be gained comparatively quickly is a recognition of the great *difficulties* of the subject and the correction of that simple-minded ignorance, still so widely spread, which assumes that even a non-expert may give an opinion on mental cases without any more ado.

After these introductory remarks, let us turn to the consideration of our patients. I will first place before you a farmer, aged fifty-nine, who was admitted to the hospital a year ago. The patient looks much older than he really is, principally owing to the loss of the teeth from his upper jaw. He not only understands our questions without any difficulty, but answers them relevantly and correctly; can tell where he is, and how long he has been here; knows the doctors, and can give the date and the day of the week. His expression is dejected. The corners of his mouth are rather drawn down, and his eyebrows drawn together. He usually stares in front of him, but he glances up when he is spoken to. On being questioned about his illness, he breaks into lamentations, saying that he did not tell the whole truth on his admission, but concealed the fact that he had fallen into sin in his youth and practised uncleanness with himself; everything he did was wrong. "I am so apprehensive, so wretched; I cannot lie still for anxiety. O God, if I had only not transgressed so grievously!" He has been ill for over a year, has had giddiness and headaches. It began with stomach-aches and head trouble, and he could not work any longer. "There was no impulse left." He can get no rest now, and fancies silly things, as if someone were in the room. Once it seemed to him that he had seen the Evil One: perhaps he would be carried off. So things seemed to him.

As a boy, he had taken apples and nuts. "Conscience has said that that is not right ; conscience has only awakened just now in my illness." He had also played with a cow, and by himself. "I reproach myself for that now." It seemed to him that he had fallen away from God, and was now as free as a bird. His appetite is bad, and he has no stools. He cannot sleep. "If the mind does not sleep, all sorts of thoughts come." He has done silly things too. He fastened his neckerchief to strangle himself, but he was not really in earnest. Three sisters and a brother were ill too. The sisters were not so bad ; they soon recovered. "A brother has made away with himself through apprehension."

The patient tells us this in broken sentences, interrupted by wailing and groaning. In all other respects, he behaves naturally, does whatever he is told, and only begs us not to let him be dragged away—"There is dreadful apprehension in my heart." Except for a little trembling of the outspread fingers and slightly arhythmic action of the heart, we find no striking disturbances at the physical examination. As for the patient's former history, he is married, and has four healthy children, while three are dead. The illness began gradually seven or eight months before his admission, without any assignable cause. Loss of appetite and dyspepsia appeared first, and then ideas of sin. His weight diminished a little after his admission, but has now slowly risen again 7 kilogrammes.

The most striking feature of this clinical picture is the *apprehensive depression*. At first sight, it resembles the anxieties of a healthy person, and the patient says that he was always rather apprehensive, and has only grown worse. But there is not the least external cause for the apprehension, and yet it has lasted for months, with increasing severity. This is the diagnostic sign of its morbidity. It is true that the patient himself refers to the sins of his youth as the cause of the apprehension, but it is clear that, even if they were ever really committed, they did not particularly disturb him before his illness ; his conscience has only awakened now. His actions now appear to him in an entirely different and fatal light, and those morbid symptoms become prominent which are known as "*delusions of sin*." The patient's ideas that the Evil One was in the room, that he would be carried off, and that he had fallen away from God, must be regarded as a result of his apprehension. There is no question of real hallucinations in these statements ; it only *seemed so* to

the patient. He also has a strong feeling that some great change has come over him, and that he is "not the same as before." He is certainly not in a condition to form a correct conception of the morbidity of his ideas of sin and of his fears in detail.

We give the name of *melancholia* to this condition, in which we see the gradual development of a state of apprehensive depression, associated with more or less fully-developed delusions. The most common of these are ideas of sin, which generally have a religious colouring. Such are the ideas of having fallen away from God and being forsaken, or of being possessed by the devil. Hypochondriacal ideas—of never being well again, never having a stool again, etc.—are also far from uncommon. Together with these there is often apprehension of poverty, of having to starve, of being thrown into prison, of being brought before a court, or even of execution.

As a consequence of this mental unrest and these tormenting ideas, the wish to have done with life develops almost invariably, and patients very often become suicidal. Our first patient only made a rather feeble attempt at suicide, but I will now show you a widow, aged fifty-four, who has made very serious efforts to take her own life. This patient has no insane history. She married at the age of thirty, and has four healthy children. She says that her husband died two years ago, and since then she has slept badly. Being obliged to sell her home at that time, because the inheritance was to be divided, she grew apprehensive, and thought that she would come to want, although, on quiet consideration, she saw that her fears were groundless. She complained of heat in her head and uneasiness at her heart, felt weak and excited, and was tired of life, especially in the morning. She says she could get no sleep at night, even with sleeping-powders. Suddenly the thought came to her, "What are you doing in the world now? Try to get out of it, so as to be at rest. It's no good any longer." Then she hung herself up behind the house with her handkerchief, and became unconscious, but her son cut her down and brought her to the hospital.

Here she was quite collected, and was orderly in thought and behaviour. She understood the morbidity of her condition but feared that she would never be well again. She said she could not bear it any longer, and could not stay here; she was driven to despair. She was very fond of talking about her condition and loudly lamented that she was so apprehensive, asking for a

clergyman to come and drive out the Evil One. At this she was seized with violent trembling in her whole body, and declared that she had no peace ; she could not rest, her heart beat so ; her head was bursting, she could not live any longer ; she wished to die at home ; thoughts of suicide tormented her unceasingly. Her sleep and appetite were bad, but no other physical disturbance could be discovered. In the course of the first few months her mental condition improved fairly quickly, and, at the urgent desire of her relations, leave of absence was granted with the family of her daughter. But the apprehension and thoughts of suicide became so marked that she had to be brought back to the hospital within a fortnight. Here her condition is still improving, though very slowly and with many fluctuations. Her recovery has been much delayed by a carious affection of the right parietal bone and the left wrist, which necessitated repeated interference, but is now in a tolerably healthy condition.

This patient, too, is quite clear as to her surroundings, and gives connected information about her condition. She has no real delusions, apart from fear that she will never be well again. Indeed, we find that the real meaning of the whole picture of disease is only permanent *apprehensive depression*, with the same accompaniments as we see in mental agitation in the sane—*i.e.*, loss of sleep and appetite, and failure of the general nutrition. The resemblance to anxiety in a sane person is all the greater because the depression has followed a painful external cause. But we can easily see that the severity, and more especially the duration, of the emotional depression have gone beyond the limits of what is normal. The patient herself sees clearly enough that her apprehension is not justified by her real position in life, and that there is absolutely no reason why she should wish to die.

This sense of the morbid nature of the apprehension, or "insight into the disease," is not always present in melancholia. In those cases, more especially, in which there are marked *delusions* this important symptom may be altogether absent for a long time together. As an example, I will show you a widow, aged fifty-six, who nursed her son when he was ill of typhus two and a quarter years ago. She then had a feverish illness herself, presumably also typhus, and lost her husband suddenly a few months later. Very soon after this she began to be apprehensive, and to reproach herself with not having taken proper care

of her husband. Strongly-marked delusions of sin quickly developed. She had never done anything properly, and had allowed herself to be led away by the wicked fiend. Her prayers had been no good, only she did not know that before. Her husband absolutely married the devil, and could not go to heaven, and she and her children were damned on account of her former unchristian life. Great restlessness and almost complete sleeplessness now came on. The patient lamented, shrieked, and wept persistently, her appetite quite failed, and she soon had to be brought to the hospital.

Here she was collected and clear about her surroundings, but gradually passed into a very severe state of apprehensive excitement, which found expression in monotonous and almost intolerable shrieks. She could only be interrupted for a short time by asking her questions, which she always answered. She also expressed a quantity of the most fantastic ideas. She had been the serpent in paradise, had led astray her husband, who was called Adam, and had made herself and her children accursed, and everyone unhappy. Therefore she was burning, was already in hell, and saw her fearful sins in the abyss. The firmament had fallen; there was no more water or money or food; she had ruined everything, and was guilty of the downfall of the world—"The whole world lies upon my soul." She accused herself of all these transgressions in a written document, addressed to the District Court, and begged to be taken to prison. She wrote her name on a label as "Devil."

In spite of all this, you are soon convinced that, even while she is senselessly shrieking and expressing delusionary ideas of this kind, the patient knows where she is quite well, knows the doctors, and gives broken but relevant answers to questions about the circumstances of her home. She also does sums correctly, though she returns at once to her monotonous lamentations. As the result of sleeplessness and insufficient nourishment, she is physically quite run down, but shows no other sign of illness. She has three healthy sons, while three of her children died in childhood. Her father is said to have been temporarily insane.

At first sight this clinical picture of disease seems different from the other and simpler forms. But it is easily shown that the variations are only a matter of degree. Both in the development of the delusions and in the strength and manifestations of the apprehension we meet with every conceivable transition,

from the form first described and generally known as melancholia simplex to the present morbid condition, and to even more marked cases. Often enough the same patient presents first one and then another type of symptoms at different times. It is therefore impossible to lay down any reliable clinical line of division in these cases.

All three patients are of considerable age. This is not an accident. Melancholia, as we have described it here, sets in principally, or perhaps exclusively, at the beginning of old age in men, and in women from the period of the menopause onwards. We might regard it as a morbid expression of the feeling of growing inadequacy, usually more or less noticeable in healthy people of the same age. Those who are morbidly disposed by nature of course become melancholic most easily, as is shown by our examples, and women seem more inclined to the disease than men. Of external influences, emotional shocks, and especially the death of near relations, often figure as the exciting cause, although they cannot be regarded as the original cause, on account of their absence in other cases. The termination of the illness is generally pretty favourable.* About a third of the patients make a complete recovery. In severe and protracted cases, emotional dulness may remain, with faint traces of the apprehensive tendency. Judgment and memory may also undergo considerable deterioration. The course of the disease is always tedious, and usually continues, with many fluctuations, for from one to two years, or even longer, according to the severity of the case.

The treatment of the malady cannot, as a rule, be carried out, except in an asylum, as thoughts of suicide are almost always present. Patients who show such tendencies require the closest watching, day and night. They are kept in bed and given plenty of food, though this is often very difficult, on account of their resistance. Care is also taken to regulate their digestion, and, as far as possible, to secure them sufficient sleep by means of baths and medicines. Paraldehyde is generally to be recommended, or, under some circumstances, alcohol, or occasional doses of trional. Opium is employed to combat the apprehension, in gradually increasing doses, which are then by degrees

* The first of these three patients has been well for more than five and a quarter years, and the second for a year. The third is still under treatment, but has improved after two and a half years' illness.

reduced. This remedy has often done very good service with our first two patients, while with the third we have had better results from small doses of paraldehyde. Great care is needed in discharging patients. If this is done too soon, as in the case of our second patient, serious relapses may result, with attempted suicide. Visits from near relations have a bad effect up to the very end of the illness.

LECTURE II

DEPRESSED STAGES OF MANIACAL-DEPRESSIVE INSANITY (CIRCULAR STUPOR)

GENTLEMEN,—The patient you see before you to-day is a merchant, forty-three years old, who has been in our hospital almost uninterruptedly for about five years. He is strongly built, but badly nourished, and has a pale complexion, and an invalid expression of face. He comes in with short, wearied steps, sits down slowly, and remains sitting in a rather bent position, staring in front of him almost without moving. When questioned, he turns his head a little, and, after a certain pause, answers softly, and in monosyllables, but to the point. We get the impression that speaking gives him a great deal of trouble, his lips moving for a little while before the sound comes out. The patient is clear about time and place, knows the doctors, and says that he has been ill for more than five years, but cannot give any further explanation of this than that his spirits are affected. He says he has no apprehension. He gives short and perfectly relevant answers to questions about his circumstances and past life. He does exercises in arithmetic slowly but correctly, even when they are fairly hard. He writes his name on the blackboard, when asked to do so, with firm though hesitating strokes, after having got up awkwardly. No delusions, particularly ideas of sin, can be made out, the patient only declaring that he is in low spirits, without knowing of any cause for it, except that his illness has lasted so long, and worries him. He hopes, however, to get well again.

As you may see, it is evident that in reality we have to deal with *emotional depression* in this case, as well as in those already discussed. It is true that there are no delusions associated with it here, as there were in the other cases; but let us not be

inclined to lay too much stress on this, after having learned by experience how widely delusions may vary in the same illness. On the other hand, it must strike us that this patient is not apprehensive, but only "low spirited," and still more that, unlike the patients already considered, he is apparently unable to move and express himself freely. In those cases there were lively gesticulations, lamentations, and complaints, and a certain necessity of giving vent to the oppression within, while here it is hard to draw any remark from the patient on his mental condition, or on questions of fact. This very circumstance, that the answers come so slowly, even on matters of indifference, shows that in this patient we have not to deal with a fear of expressing himself, but with some general obstacle to utterance in speech. Indeed, not only speech, but *all action of the will is extremely difficult to him*. For three years he has been incapable of getting up from bed, dressing, and occupying himself, and since that time has lain in bed almost without moving. But as he has the most perfect comprehension of his surroundings, and is able to follow difficult trains of thought, the disturbance must be essentially confined to the accomplishment of voluntary movements, or at any rate must find by far its strongest manifestations in this direction. We clearly recognise the pain he takes to act and to comply with our demands, and at the same time the delay and difficulty attending every effort of the will. Under these circumstances, it will be permissible here to speak of an *impediment of volition*, in the sense that the transformation of the impulses of the will into action meets with obstacles which cannot be overcome without difficulty, and often not at all by the patient's own strength. This constraint is by far the most obvious clinical feature of the disease, and compared with this, the sad, oppressed mood has but little prominence. No other psychical disturbances can be made out at present.

Having established this, we have got an insight, on several points, into the nature of the disease before us. In the first place, we see that this condition differs from that of our melancholic patients, in a very definite way, through the strong impediment of volition, and the absence of the apprehensive restlessness so clearly marked in them. Experience shows that this condition is very characteristic of an entirely different disease, to which we will give the name of *maniacal-depressive insanity*,

for reasons to be discussed immediately. This disease generally runs its course in *a series of isolated attacks*, which are not uniform, but present either states of depression of the kind described or characteristic states of excitement, which we will learn to know better later on. The isolated attacks are generally separated by longer or shorter intervals of freedom.

The conclusion we have drawn from our patient's present condition is correct. He first became ill when he was twenty-three years old, and was then depressed, as is generally the case in first attacks; but the depression was followed next year by a state of excitement, which led to his being brought to the asylum. Two years later he married a person very much beneath him, very probably when under slight excitement, but separated from her during the depression which ensued. At the age of thirty-one, probably when again in an excited state, he fell into the hands of an adventuress, who abandoned him when he became depressed again. Indeed, his relations held his depression to be the result of the melancholy experience he had been through. In his thirty-sixth and thirty-seventh years a further and stronger excitement followed, which again made treatment in the asylum necessary.

The patient's father, as well as his two brothers, was a drunkard, while his sister was ill in the same way as himself. He suffered for several years from diabetes insipidus. A doctor advised him, presumably on this account, to take a little wine, as too much water was not good for him. The patient followed this advice, and about five and a half years ago he suddenly fell ill of delirium tremens, immediately followed by a state of excitement, gradually and continually growing worse, which only disappeared slowly after two years. Only a few weeks after his discharge from our hospital, where he was then treated, the extraordinarily severe impediment of volition which you may still observe in a milder form set in rather suddenly. The patient remained motionless in bed, would not eat, was wet and dirty in his habits, could hardly speak, and expressed apprehensive ideas. Thought also seems to have been affected at first, and the patient made no answer, or replied only very slowly, alike to emphatic and to gentle questionings. But there were no actual delusions even then. The patient soon returned to the hospital, but in spite of the most careful nursing, his condition has improved only very slowly and immaterially in the course

of the last three years. Yet we may expect that this attack also will end in recovery, like those which have preceded it, if only the patient can live through so severe a disturbance.* But it is no less probable that he will again fall ill of attacks of depression or excitement such as he has so often had before.

Fluctuations of *weight* are of special interest in the disease we are now discussing. In the last attack of excitement he had in the hospital our patient lost nearly 13 kilogrammes, and then gained 25 kilogrammes when he became calm. In the first eighteen months of the depression, his weight fell from 91.5 kilogrammes to 56.5 kilogrammes, and has only risen 14 kilogrammes since. These figures show the violent revolutions in the province of general nutrition which take place in diseases of this kind. Little as we are yet able to account for the details of these occurrences, regular and continuous weighings afford us an excellent means of judging of the general state of the disease in this as in most other forms of insanity. A decided increase in the previously reduced weight in maniacal-depressive insanity is the most reliable sign that the attack has passed its worst.

In the light of the case we have just considered the meaning of what follows will, I think, be clearer to you than it formerly was to me. Here is a case of a woman, twenty-three years old, who was admitted only a fortnight ago. The patient, whose mother is mentally rather limited, bore her second child six weeks ago. Seventeen days later she got a great fright from a fire in her room, and she then became apprehensive and restless, saw flames, black birds and dogs, heard whistling and singing, began to pray, screamed out of the window, lamented her sins, promised to be good, and could not sleep. The patient is ill-nourished and anæmic. She sits almost motionless, with her eyes cast down, staring in front of her, and moving her lips slightly now and then. Her expression is strained, and rather apprehensive. When questioned about dates, the place where she is, and the people about her, she either makes no answer at all, or shakes her head, or says in a low, hesitating voice: "I do not know." She nods when I ask her if she is unhappy, and mutters to herself: "There are always so many carriages

* Unfortunately, this expectation was not realized. The psychical disturbances still continued, and the patient succumbed to acute phthisis when the depression had lasted three and a half years.

coming ; a great number drive about outside." Now and then she uses isolated, broken expressions, in a tone of lamentation, often repeating them one after the other : " I want to go home, to get out. Alas ! alas ! only let me go away. I will not let myself be done to death. I cannot stay here. Good heavens ! there is poison in the food !" She obeys orders with hesitation, and sometimes resists, but can plainly be influenced by persuasion. When threatened with a needle, she screams and turns away hastily. She generally has to be fed.

On consideration of the want of freedom in our patient's bearing, and the slowness and constraint of her movements, which will only become more active in apprehensive gestures of self-defence, you will clearly see that, in this case, too, we have to deal with an impediment of volition, particularly apparent in the almost entire falling off of utterance in speech and of expressive movement. But it presents a contrast with the previous case in the more definite apprehension, which is far less amenable to persuasion and influence, and also by the severe disturbance of comprehension. The patient has absolutely no clear idea of her position, does not understand what goes on around her, and cannot solve any mental problems. A similar difficulty in thought is associated with the difficulty in the action of the will. You will remember that a disturbance of this kind occurred at the beginning of the last patient's attack, and that it was only later on that it became less and less obvious. This *impediment of cognition*, as we will call it, is in fact a symptom regularly accompanying the state of depression in maniacal-depressive insanity. It is sometimes more, sometimes less clearly defined, and is generally perceived very plainly by the patients themselves.

As the intensity and colouring of the emotional depression may vary very widely in maniacal-depressive insanity, we will conclude, in consideration of the well-defined impediment of volition and cognition, that the case which is before us now belongs to the same group of diseases as the last case. Hence, it would seem probable that similar attacks, and also attacks of excitement, will clearly be noticed sooner or later in our patient. This conclusion is confirmed by the remarkable fact that, although she is so apprehensive, she begins, after a good deal of persuasion, to twist her face into an extraordinary smile. You will understand the meaning of this symptom at once if

we glance back into the past. The patient was here four years ago. At that time she had aborted, after having been pregnant by a married man. A few weeks later she became dumb and rigid, expressed ideas of death, saw spirits, grew quite confused, mixed, perplexed, and apprehensive, and refused to eat—in short, a state of impediment of volition and cognition was developed very like the present condition, but even more severe, lasting about seven months. Then, quite suddenly, there was a *complete* change, and the patient became clear and collected, and was in high spirits. Finally, she passed through a very violent state of excitement, which gradually disappeared after nearly six months. During her convalescence, there was slight and transitory emotional depression, but after this the patient became well, and remained so till the beginning of the present attack.

Thus we see that the conclusion drawn from the patient's present condition was correct. The similarity of the two periods of depression of which we know leaves no room for reasonable doubt that they both belong to the same clinical picture of disease. We must indeed notice that both attacks followed a confinement, so that the same cause might have produced the same illness each time. But we saw the same characteristic symptoms of impediment of thought and will in the preceding case, where there had been no confinement, and the subsequent change from depression to excitement, occurring in the same way in both patients, is a fresh proof that our case is one of maniacal-depressive insanity. We will see later on that those representations of disease in which we really have grounds for regarding a confinement as the actual cause present entirely different clinical features. Finally, experience shows that single attacks of maniacal-depressive insanity are very often set free by injurious external influences. We must, therefore, expect our patient's next attack to break out once again without any very tangible cause.

On the strength of these considerations, we may venture to suppose that the patient will often fall ill again in the future course of her life, either of depression, as on this occasion, or of excitement, but that each attack may be expected to end in recovery. In the present attack, this may certainly be expected, yet it is very possible that a slighter state of excitement may

first intervene, as has happened before.* The smile already mentioned might be the first sign of such a change.

The condition of severe impediment of volition is generally included with some other and outwardly similar states under the name of *stupor*. We may call the form now before us "circular stupor," as maniacal-depressive insanity is often called circular insanity (*folie circulaire*), on account of the cycle of recurrent conditions. The common characteristic of all forms of stupor is the absence of expression in speech or otherwise in response to external influences. Stupor is, however, no uniform condition, much less a separate disease, but a symptom which may arise from very different causes, and therefore may have very different clinical meanings. Even circular stupor meets us in such various forms that it is often difficult to recognise their real agreement. Here you see an innkeeper's wife, aged forty-four, who has been ill for about ten weeks. There has been no insanity in her family, and she has three healthy children. When her husband was obliged to change his inn a little while ago, she began to complain of heaviness in her head, and worried herself groundlessly—*e.g.*, with the idea that the children had no clothes, that everything was torn up, and that the house-moving would be the death of her. She thought she had made her husband unhappy, that the bailiffs were coming, that life was no longer possible at her home, and that everything was going to ruin. At the same time she spoke and ate but little, stared into space, and hardly slept at all. She also took a knife to bed with her at night, and expressed ideas of suicide, so she was brought to the hospital. Here she seemed quite collected and clear about her position, and, in answer to questions, gave a monosyllabic but consecutive account of her circumstances and her illness. For the last three months, she said, she had had no rest, and had been absent-minded and forgetful; she had such a bad memory. She could not be happy now; everything was spoiled for her, and her work had grown so hard for her that she could not get through with it. The patient spoke little of her own accord, and generally lay still in bed with a downcast expression. She was obliged to think for

* The patient recovered without any distinct maniacal excitement, after having spent five months in the asylum, and gained 13 kilogrammes in weight. She has been well for two years since then.

a disproportionately long time over the answers to simple questions, was not quite clear about the chronological order of her experiences, and hardly knew at all where she was. All her expressions and movements were slow and hesitating, as if she did not quite know what she ought to say and do. She was low-spirited, and in particular cried a great deal when she had visitors. She described her complaint as "dejection," and burst into tears whenever it was discussed, without being able to give a more precise account of her condition. The picture the patient now presents still shows substantially the same features: a quiet, oppressed mood, a sad expression, low, hesitating speech, and slow, tired movements, while at the same time she is quite collected. But the ideas of sin have grown much stronger. With tears, the patient calls herself the greatest of sinners, because she has brought her husband and children into misfortune; she will certainly be executed. These are the same ideas of sin as we have learned to recognise in melancholia. We might, therefore, be tempted, especially in view of the patient's age, to take the illness for simple climacteric melancholia. But I think that this idea is contradicted by the obvious presence of the impediment of thought and will, which we have observed before, in just the same form, in maniacal-depressive insanity, but not in melancholia. I think that this symptom will justify our regarding the present case as one of the former disease. If this opinion of mine be correct, we need not expect a lingering, uniform course of disease, ending in recovery or in the characteristic state of weakness following melancholia, which has already been briefly described. We may hope for a much shorter duration of the disease, and for complete recovery, as the first attack of maniacal-depressive insanity generally runs a fairly rapid and favourable course. On the other hand, we must certainly be prepared to see it return, either as the same affection or in the form of excitement.

The course of the case until now would certainly tend to show that our conception is correct. The patient's downcast mood disappeared almost entirely after three or four weeks in the asylum. In its place she showed a rather impatient, discontented temper, with frequent smiling, of which we will learn the clinical meaning on a future occasion. The patient was so anxious to go home that her husband thought he ought to

humour her home-sickness, even against our advice. But her condition grew worse so quickly that she had to be brought back in four days. But probably we will soon effect an improvement even now.*

The milder form of impediment of volition seen in this case is noticed by patients themselves as "inability to come to a decision," and meets us as such in the numberless mild cases of maniacal-depressive insanity which never come into an asylum, and, indeed, are never recognised as morbid states at all. Then we have the "psychological riddle" that, without any adequate cause, but in the opinion of the sufferers and those around them, as the result of some external influence or other, there arise times of complete inability to come to a decision, when every determination of the will costs the greatest effort, which alternate more or less regularly with periods of the most reckless enterprise. It is just these mildest forms of the illness, leading by an infinity of gradations to the severe forms, and the most severe, which show how deeply maniacal-depressive insanity is rooted in the natural disposition of certain individuals. Hence we frequently find it in several members of the same family. Often enough we see nearly a whole lifetime filled with slight attacks, succeeding one another almost uninterruptedly. But just as often the illness only appears a few times, as in the case described, either at a particular period of life, or as the result of some external influence. The attacks usually set in during the years of evolution, or later on at the time of reversion.

Many of the quite slight attacks—which, by the way, may always alternate with the severe—pass off without any treatment. Other cases are sent as "neurasthenia" to different asylums and watering-places, or ordered to travel, and the patients then extol, with full conviction, the particular cure they were taking when the improvement or the change to excitement occurred. In all the more serious attacks, however, treatment in an asylum is urgently required, on account of the danger of suicide, which is greatest at the beginning or near the end of an attack, because at those times their indecision does not make

* The patient is still under treatment here, and has substantially improved. Unfortunately, her husband has again jeopardized her recovery by taking her home in the face of medical advice, and a serious attempt at suicide has been the result.

the patients incapable of pulling themselves together to act. In the asylum they must be carefully watched, and an intelligent and moderately strict treatment in bed should be carried out. Of drugs, bromides may be used, either alone or in combination with opium or other suitable hypnotics, but too much must not be expected of them. Prolonged warm baths sometimes do good service. Visits from near relations and premature discharge from the asylum are frequent causes of relapses.

LECTURE III

DEMENTIA PRÆCOX (INSANITY OF ADOLESCENCE)

GENTLEMEN,—You have before you to-day a strongly-built and well-nourished man, aged twenty-one, who entered the hospital a few weeks ago. He sits quietly looking in front of him, and does not raise his eyes when he is spoken to, but evidently understands all our questions very well, for he answers quite relevantly, though slowly and often only after repeated questioning. From his brief remarks, made in a low tone, we gather that he thinks he is ill, without getting any more precise information about the nature of the illness and its symptoms. The patient attributes his malady to the onanism he has practised since he was ten years old. He thinks that he has thus incurred the guilt of a sin against the sixth commandment, has very much reduced his power of working, has made himself feel languid and miserable, and has become a hypochondriac. Thus, as the result of reading certain books, he imagined that he had a rupture and suffered from wasting of the spinal cord, neither of which was the case. He would not associate with his comrades any longer, because he thought they saw the results of his vice and made fun of him. The patient makes all these statements in an indifferent tone, without looking up or troubling about his surroundings. His expression betrays no emotion; he only laughs for a moment now and then. There is occasional wrinkling of the forehead or facial spasm. Round the mouth and nose a fine, changing twitching is constantly observed.

The patient gives us a correct account of his past experiences. His knowledge speaks for the high degree of his education; indeed, he was ready to enter the University a year ago. He also knows where he is and how long he has been here, but he is only very imperfectly acquainted with the names of the people

round him, and says that he has never asked about them. He can only give a very meagre account of the general events of the last year. In answer to our questions, he declares that he is ready to remain in the hospital for the present. He would certainly prefer it if he could enter a profession, but he cannot say what he would like to take up. No physical disturbances can be definitely made out, except exaggerated knee-jerks.

At first sight, perhaps, the patient reminds you of the states of depression which we have learned to recognise in former lectures. But on closer examination you will easily understand that, in spite of certain isolated points of resemblance, we have to deal here with a disease having features of quite another kind. The patient makes his statements slowly and in monosyllables, not because his wish to answer meets with overpowering hindrances, but because he feels no desire to speak at all. He certainly hears and understands what is said to him very well, but he does not take the trouble to attend to it. He pays no heed, and answers whatever occurs to him without thinking. No visible effort of the will is to be noticed. All his movements are languid and expressionless, but are made without hindrance or trouble. There is no sign of emotional dejection, such as one would expect from the nature of his talk, and the patient remains quite dull throughout, experiencing neither fear nor hope nor desires. He is not at all deeply affected by what goes on before him, although he understands it without actual difficulty. It is all the same to him who appears or disappears where he is, or who talks to him and takes care of him, and he does not even once ask their names.

This peculiar and fundamental want of any *strong feeling of the impressions of life*, with unimpaired ability to understand and to remember, is really the diagnostic symptom of the disease we have before us. It becomes still plainer if we observe the patient for a time, and see that, in spite of his good education, he lies in bed for weeks and months, or sits about without feeling the slightest need of occupation. He broods, staring in front of him with expressionless features, over which a vacant smile occasionally plays, or at the best turns over the leaves of a book for a moment, apparently speechless, and not troubling about anything. Even when he has visitors, he sits without showing any interest, does not ask about what is happening at home, hardly even greets his parents, and goes back indifferently to

the ward. He can hardly be induced to write a letter, and says that he has nothing to write about. But he occasionally composes a letter to the doctor, expressing all kinds of distorted, half-formed ideas, with a peculiar and silly play on words, in very fair style, but with little connection. He begs for "a little more *allegro* in the treatment," and "liberationary movement with a view to the widening of the horizon," will "*ergo* extort some wit in lectures," and "*nota bene* for God's sake only does not wish to be combined with the club of the harmless." "Professional work is the balm of life."

These scraps of writing, as well as his statements that he is pondering over the world or putting himself together a moral philosophy, leave no doubt that, besides the emotional barrenness, there is also a high degree of *weakness of judgment* and *flightiness*, although the pure memory has suffered little, if at all. We have a *mental and emotional infirmity* to deal with, which reminds us only outwardly of the states of depression previously described. This infirmity is the incurable outcome of a very common history of disease, to which we will provisionally give the name of *Dementia Præcox*.

The development of the illness has been quite gradual. Our patient, whose parents suffered transitorily from "dejection," did not go to school till he was seven years old, as he was a delicate child and spoke badly, but when he did he learned quite well. He was considered to be a reserved and stubborn child. Having practised onanism at a very early age, he became more and more solitary in the last few years, and thought that he was laughed at by his brothers and sisters, and shut out from society because of his ugliness. For this reason he could not bear a looking-glass in his room. After passing the written examination on leaving school, a year ago, he gave up the *viva voce*, because he could not work any longer. He cried a great deal, masturbated much, ran about aimlessly, played in a senseless way on the piano, and began to write observations "'On the Nerve-play of Life,' which he cannot get on with." He was incapable of any kind of work, even physical, felt "done for," asked for a revolver, ate Swedish matches to destroy himself, and lost all affection for his family. From time to time he became excited and troublesome, and shouted out of the window at night. In the hospital, too, a state of excitement lasting for several days was observed, in which he chattered in a confused way, made faces, ran about at

full speed, wrote disconnected scraps of composition, and crossed and recrossed them with flourishes and unmeaning combinations of letters. After this a state of tranquillity ensued, in which he could give absolutely no account of his extraordinary behaviour.*

Besides the mental and emotional imbecility, we meet with other very significant features in the case before us. The first of these is the silly, vacant laugh, which is constantly observed in dementia præcox. There is no joyous humour corresponding to this laugh; indeed, some patients complain that they cannot help laughing, without feeling at all inclined to laugh. Other important symptoms are making faces or grimacing, and the fine muscular twitching in the face which is also very characteristic of dementia præcox. Then we must notice the tendency to peculiar, distorted turns of speech—*senseless playing with syllables and words*—as it often assumes very extraordinary forms in this disease. Lastly, I may call your attention to the fact that, when you offer him your hand, the patient does not grasp it, but only *stretches his own hand out stiffly to meet it*. Here we have the first sign of a disturbance which is often developed in dementia præcox in the most astounding way.

As the illness developed quite gradually, it is hardly possible to fix on any particular point of time as the beginning. In such cases, the change which is taking place is easily referred to some culpable looseness of morality, which it is sought to combat by educational means. Onanism in particular, which is very common in our patients, is usually held to be the source of the disease, so that cases of this kind were formerly spoken of as the insanity of onanism. I am nevertheless inclined to see in onanism a symptom, rather than the cause, of the disease. We often see the whole severe mental and physical condition arise, without any striking degree of onanism, and we also know degenerate onanists who present quite different symptoms. Hence there cannot well be any question of a regular causal connection between onanism and dementia præcox. Besides, the disease is just as common among women, in whom the weakening effect of onanism must be much slighter. Lastly, it is to be observed that the disease often sets in quite suddenly, another circumstance not exactly adapted to confirm the supposition of its onanistic origin.

Dementia præcox often begins with a state of depression,

* The patient afterwards returned to the care of his family unchanged.

which at first may easily be confused with the kinds of depression already described. As an example of this, I will show you a day-labourer, aged twenty-two, who first came into the hospital three years ago. He belongs, it is said, to a healthy family, and did well at school. A few weeks before his admission he had some attacks of apprehension, and then became disturbed, ill-balanced and absent-minded, stared in front of him, spoke in a confused way, and expressed vague ideas of sin and persecution. On admission, he gave hesitating, broken answers, did sums and obeyed orders, but did not know where he was. He hardly spoke at all of his own accord, or at most muttered a few almost incomprehensible words : there was war ; he could not eat, lived by the word of God ; there was a raven at the window that wished to eat his flesh, and so on. Although he understood what was said to him quite well, and even let his attention be easily diverted, he did not trouble at all about his surroundings, had no desire to make himself clear about his position, and expressed neither apprehension nor desires. He generally lay in bed with a rigid, vacant expression, but often got up to kneel down or go about slowly. All his movements showed a certain constraint and want of freedom. His limbs remained for some time in the position in which you placed them. If you raised your arms quickly in front of him, he imitated the movement, and he also clapped his hands when it was done before him. These phenomena, called respectively *flexibilitas cerea*, "*waxen flexibility*," or catalepsy and *echopraxis*, are familiar to us from experiments in hypnotism. They are always symptoms of a peculiar disturbance of volition, of which we include the various manifestations under the name of *automatic obedience*. Inequality of the pupils is also to be noticed in our patient, and I must mention the occurrence of an attack of unconsciousness, with twitching in the arms.

The patient's condition improved in the course of the next few months. He became clearer, his behaviour was more natural, and he had a distinct feeling of illness, but he remained strikingly dull, apathetic, and devoid of ideas. Nevertheless, he found employment outside, and only came back to the hospital a year ago. He had thrown himself in front of a train, losing his right foot and breaking his left arm. This time he was collected and clear about his surroundings, and showed considerable knowledge of geography and arithmetic, but spoke to none of his own accord,

and lay in bed dully, with a vacant expression, without occupying himself or paying attention to what went on around him. He alleged as the reason for his attempted suicide that he was ill ; his brain had burst out a year before. Since then he could not think by himself ; others knew his thoughts, spoke about them, and heard if he read the newspaper.

The patient is still in the same condition to-day. He stares apathetically in front of him, does not glance round at his surroundings, although they are strange to him, and does not look up when he is spoken to. Yet it is possible to get a few relevant answers by questioning him urgently. He knows where he is, can tell the year and month and the names of the doctors, does simple sums, and can repeat the names of some towns and rivers, but at the same time he calls himself Wilhelm Rex, the son of the German Emperor. He does not worry about his position, and says he is willing to stay here, as his brain is injured and the veins are burst. The waxen flexibility and echopraxis can still be made out clearly. When told to give his hand, he stretches it out stiffly, without grasping.

You will understand at once that we have a *state of dementia** before us, in which the faculty of comprehension and the recollection of knowledge previously acquired are much less affected than the judgment, and especially than the emotional impulses and the acts of volition which stand in the closest relation to them. The disease thus delineated agrees to a great extent with the case which was last described, in spite of the different development of the illness. The complete loss of mental activity, and of interest in particular, and the failure of every impulse to energy, are such characteristic and fundamental indications that they give a very definite stamp to the condition in both cases. Together with the weakness of judgment, they are invariable and permanent fundamental features of dementia præcox, accompanying the whole evolution of the disease. Compared with these, all other disturbances, however prominent they may be in individual cases, must be regarded as merely transitory, and therefore not absolutely diagnostic, features. This holds good, for instance, of delusions and hallucinations, which are very frequently present, but may be developed in very different degrees or be altogether absent, or disappear, without the fundamental features of the disease or its course and issue

* The patient is now in a nursing asylum, and is a little better.

being in any way affected. Yet we may consider it a rule that states of depression which are accompanied *at the very beginning* by *vivid hallucinations* or *confused delusions* usually form the prelude to dementia præcox. Fluctuations in spirits are always only of a fugitive kind in this disease, and therefore cannot be made use of for the diagnosis. At the very onset, indeed, we often observe states of lively apprehension or sad depression, but generally we can soon satisfy ourselves that the affections of the emotions really disappear very quickly, even when the external signs of them continue for some time longer.

Looking at the strongly-built postman, aged thirty-five, who stands before you now, you will hardly believe that a few days ago this man not only tried to make away with himself, but also wished to persuade his wife to die with him. He had been cut down insensible from the water-pipe a few days before. The patient is pale, and his general nutrition is much impaired. He is quite collected, knows where he is, understands his position, and gives relevant and connected answers to questions. He says that he has been ill for five weeks. He suffered from headaches, and thought that his comrades talked about little failings of which he had been guilty in former places. He heard someone say, "We'll catch you; we'll pull your little shirt off." There was also a great deal that he did not understand; there was telephoning into his ear. Then he hanged himself because of the voices. Later on he began to work again, but was still apprehensive. He was afraid he had passed false money and would go to prison for it, was confused in his head, and asked his wife to shoot herself with him, as she would be left in misfortune if he went to prison. He could not sleep or eat, and kept on reproaching himself. He saw a head, of which he was afraid at first, on the ceiling; then, with his eyes shut, he saw two tables, of which one was split, and on them a house with windows and an arch.

The patient relates all these experiences smilingly and with an affected way of speaking. He gives no further thought to his attempted suicide, or to his having been brought to the asylum. He offers his hand in a stiff, spread-out way, shows well-marked catalepsy and echopraxis, which also takes the form of echolalia, when he repeats words shouted to him immediately, sometimes distorting them. For the first part of his stay in the asylum he lay in bed almost all day, often with his eyes closed and without moving, not even stirring when he was spoken to or even pricked

with a needle. As he sometimes related, he heard voices which said all manner of things before him or called them to him. He told in a whisper how he had seen a blue heart up above, and behind it quivering sunshine and another blue heart, "a little woman's heart." He also saw flashes of lightning and a comet with a long tail. The sun rose on the wrong side.

It is also to be noticed that for the last few days the patient has suddenly refused to eat, without any cause, so that it has been necessary to feed him artificially. He declined the suggestion that he should write to his wife, on the ground that he had more important things to do. He did not wish for a visit from her: "it would really not be worth while." When told to show his tongue, he opened his mouth, but rolled back his tongue with all his strength against his soft palate. Once, for a short time, he suddenly became blindly violent against his surroundings, without being able to give any account of his reasons afterwards. The only physical symptom worth noticing is a great increase in the knee-jerks.

It cannot have escaped you that the same fundamental symptoms of emotional dulness, absence of independent impulses of the will, and increased susceptibility of the will to influence, which have already struck us in the cases previously described, are to be found again in this description. And there are just as many details, such as the hallucinations and the extraordinary way of giving the hand, to support the conclusion that the present case is also one of dementia præcox, which we drew from the emotional dulness and the automatic obedience. Finally, we must take a number of disturbances, which we shall have to consider more exactly at the earliest opportunity—the patient's senseless resistance to receiving food, to showing his tongue, and to writing letters, and also his stuporose behaviour—in the same sense. We therefore come to the conclusion that in reality the case now before us most probably belongs to the same disease as the two cases previously described.

In those cases, however, we had to deal with diseases of several years' standing, which had resulted in a condition of incurable mental infirmity. Experience shows that this is by far the most frequent result of dementia præcox. The importance of our diagnosis would therefore consist in this: that we are now able, at the very beginning of the illness, to predict its resulting in a characteristic state of feebleness, in the same way as we arrived

at certain probable conclusions about the further course of the disease in circular stupor. The prognosis, however, is really by no means simple. Whether dementia præcox is susceptible of a complete and permanent recovery answering to the strict demands of science is still very doubtful, if not impossible to decide. But improvements are not at all unusual, which in practice may be considered equivalent to cures. In these cases the patients suffer a certain impairment of their mental and emotional activity and of their power of action, and other slight remains of the symptoms of the disease may perhaps be recognised, yet they may be fully capable of filling their old place in simple relations. It is a more serious matter that in most of these cases the improvement is only *temporary*, and that such patients are in great danger of relapsing sooner or later, without any particular cause, and then generally suffer more serious injury from their illness. We had to record such an improvement in our second case, though it is true that it did not go very far. It was followed by a relapse. In the case of our third patient also we may hope for the disappearance of the present symptoms, but we must be prepared for their return in an even more serious form.*

* The patient, having made an extraordinary recovery physically, but with no proper understanding of his ailment, was discharged from the asylum after he had been there for three months. He has now been eight months at home.

LECTURE IV

KATATONIC STUPOR

GENTLEMEN,—The cases that I have to place before you to-day are peculiar. First of all, you see a servant-girl, aged twenty-four, upon whose features and frame traces of great emaciation can be plainly seen. In spite of this, the patient is in continual movement, going a few steps forwards, and then back again; she plaits her hair, only to unloose it the next minute. On attempting to stop her movement, we meet with unexpectedly strong resistance; if I place myself in front of her with my arms spread out in order to stop her, if she cannot push me on one side, she suddenly turns and slips through under my arms, so as to continue her way. If one takes firm hold of her, she distorts her usually rigid, expressionless features with deplorable weeping, that only ceases so soon as one lets her have her own way. We notice besides that she holds a crushed piece of bread spasmodically clasped in the fingers of the left hand, which she absolutely will not allow to be forced from her. The patient does not trouble in the least about her surroundings so long as you leave her alone. If you prick her in the forehead with a needle, she scarcely winces or turns away, and leaves the needle quietly sticking there without letting it disturb her restless, beast-of-prey-like wandering backwards and forwards. To questions she answers almost nothing, at the most shaking her head. But from time to time she wails: "O dear God! O dear God! O dear mother! O dear mother!" always repeating uniformly the same phrases. If you try to grasp her hand she draws it away very suddenly, and at last, if she can no longer avoid you, begins to roll it up in her apron. Orders are of no use; on the contrary, she resists in everything you try to do with her. But when she quickly hides her hand directly one speaks of taking

away the bread, it becomes evident that she understands what is happening around her.

In this clinical picture two new symptoms of disease stand out with great clearness—namely, *stereotypism* and *negativism*. The first, a kind of instinctive inclination to purposeless repetition of the same expressions of the will, shows itself in the un-tiring running backwards and forwards, in the lacing of the hands in the hair, in the holding fast the bit of bread, and in the uniform expressions of speech. The negativism, a senseless resistance against every outward influence, we recognise in the “mutacismus”—*i.e.*, forced dumbness—as well as in the whole persistent obstinacy of the patient.

In addition, these characteristics have come forward many times in very similar forms in her ordinary behaviour. For a long time the patient would take no nourishment, so that mechanical feeding had to be temporarily resorted to. It is true that she asked for water, “and cakes with it”; then, as soon as it was brought, would not take it. But now she lets her food stand beside her, and after a little time begins to swallow it greedily, but stops at once if you try to persuade her. Otherwise, she eats double and treble quantities, and also, very dexterously and unscrupulously, takes food away from the other patients.

There is little to be learnt from her broken sentences of what is passing in her mind. She certainly sometimes calls the doctor “Herr Doktor!” and knows the names of all the attendants, but appears to have delusions of all sorts, and prays that she may be able to stay one night longer. “Grant me yet one night before the many, many fires of the whole world, before the great Judgment Seat, before the many men.” She was tormented by “scythes.” “Let me go, the many heads and the many arms. Must I carry the whole world, the whole earth?” Whether the patient really experienced lively dread it is hard to decide. Threats make no impression upon her. Sometimes she twists her usually rigid features into a slight smile. Of physical disturbances there are to be noticed increased excitability of the facials, very active knee-jerks, and a bluish-red discoloration of the hands and feet.

So far as it is possible to form an opinion from these observations, it would appear that the patient's comprehension is comparatively little disturbed, while confused delusions and perhaps

illusions persist. In the emotional province a certain fear exists, but it can scarcely be very active, while in the province of action we meet with the phenomena of stereotypism and negativism in their fullest development. This diseased condition, which is distinguished from all those we have previously considered by these last two prominent characteristics, is known as *katatonic stupor*. The term "stupor" serves here for a state bearing only a quite superficial resemblance to the circular stupor already described.

Almost thirty years ago a disease was described by *Kahlbaum* as *katatonia*, or "insanity of rigidity," of which the most prominent symptom is a stiffness in the muscles, which would only be increased by outward interference. The disease should run through a series of different evolutions, and end at last in recovery or dementia. In the main, *Kahlbaum's* long-contested description has proved to be right, although I have to assume that the descriptions of disease summed up by him as *katatonia* are only special, quickly-passing forms of *dementia præcox*. At all events, in *katatonia* also, disturbances of the emotional province and of action control the condition, while comprehension and memory suffer little in proportion. But then we meet with the *katatonic* symptoms, to which the automatic obedience already described, as well as negativism and stereotypism, specially belong, in all gradations in the different forms of *dementia præcox*. Indications of the same kind were also present in the cases already discussed.

In our present case the development of the disease goes back only about sixteen weeks. The patient has no heredity, and had always been quiet and respectable. Some months previously she went into service, and there became ill. She left off working, wept and groaned a great deal, sat mute, and did not sleep. Then she became apprehensive. Now she would be tortured : the murderers would come with scythes ; she sang songs from the hymn-book ; she clung to her mother, and smiled from time to time. Once she sprang out of the window, another time down from a tolerably high rock, but without seriously hurting herself. On admission to the hospital four weeks ago, she behaved frivolously, answered only to pressing interrogation, but then correctly. She was clear as to place and time, said herself that she was ill mentally, declared that she had heard voices that always scolded her the whole time they were speak-

ing ; the Saviour had allowed her to fall. The recognition of colour and numbers was quickly made out, as well as the solution of simple sums ; also, in contrast to the condition found in circular stupor, the movements showed no kind of impediment. The patient presented echolalia and catalepsy ; further, we were struck by the grimacing movements of the muscles of the mouth. Negativism made itself apparent, in that the patient, who had been led into the room resisting, when told to go would not leave, but held back, only to decide on going when told to remain.

The stupor which you have before you is only a stage of the course of the disease in katatonia. Its beginning reminds us distinctly of the states that we discussed in our last lecture. In the same way the termination can be a similar one. Sometimes, however, the stupor passes imperceptibly into confirmed imbecility. The patients may perhaps become a little more manageable and active, but they still remain wanting in ideas, and dull and slow, and also retain permanently many of the prominent features of the disease—illusions, confused hallucinations, stereotypism in deportment and behaviour, negativism, and automatic obedience. The stupor, nevertheless, can also form the transition to states of quite other kinds, or it can disappear, only to reappear.*

The next patient whom I will bring before you to-day is a merchant, aged twenty-six, who comes into the room under guidance, with closed eyes, hanging head, and shuffling gait, and at the earliest opportunity sinks limply into a chair. On being spoken to, his pale, expressionless features do not show any animation ; the patient does not reply to questions or obey orders. If you stick a needle into his forehead or his nose, or touch the cornea, there follows at most a slight blinking or flushing, without any attempt at defence. But during this the patient quite unexpectedly breaks into a slight laugh. If you raise his arm in the air, it falls down as if palsied, and remains in the same position that it took accidentally. After much persuasion the patient at last opens his eyes ; he now also gives his hand, advancing it by jerks with stiff angular movements, and remaining in this position. If you bend his head back, he remains

* After ten months' residence at the asylum the patient was able to return to her family. She was physically healthy and capable of work, but wanting in ideas, unintelligent, dull and inaccessible, and still showed affected movements.

in this uncomfortable position, and his leg, which I have raised up, he also stretches stiffly in the air. By degrees one succeeds in calling forth still further signs of automatic obedience. The patient raises his arms if anyone does it in front of him, and imitates pushing and turning movements, whirling his fists with great exactness and rapidity. On the other hand, he does not utter a word, presses his lips together when he ought to show his tongue, cannot be induced to write, and apart from sudden, repeated grins, remains quite mute, but repeats some words shouted out loud to him with closed mouth. He at once obeys the order to go.

The characteristic *disturbance of will* that forms a mixture of automatic obedience and negativism is, above all, obvious in this patient also. In a quite inexplicable manner the patient allows himself on the one hand to be influenced without will of his own, while, again, on the other hand, he suppresses the natural impulse of the will or that introduced from without. This contrast is best illustrated by his mimicry of speech with his mouth shut. As the result of his negativism, the patient has not for a long time opened his mouth in trying to speak, but yet he cannot quite withstand the impulse to imitate what is said before him. From this we recognise clearly that negativism and automatic obedience are psychological, but not clinical, contrasts. Indeed, both disturbances not only come forward in the same patients at the same time, but they also very easily change into one another, so that you are never quite sure whether at a given moment you will meet with the one or with the other in a given patient. Sometimes also, through various suggestive means, you can at once lead over the one into the other.

As it would appear, both are only an expression of the fact that the control of that deliberation, conscious of an end, over the impulse of the will is lost, so that now impulse and counter-impulse of inner or outer origin determine irregularly the subsequent action. Thus, at least to a certain extent, one would understand that the patients, even if their deliberation is not affected in itself, involuntarily first follow that impulse which presents itself to them, only persistently to answer it in the most stubborn way with the counter-impulse, or to repeat some senseless action or other innumerable times, in every case without any regard for their own weal or woe. It is clear that such a loss of connection between thoughts and actions, which

perhaps rests on the profound destruction of the sensory life, must quite rob the action of that inner unity and logical accuracy which we regard as the issue of healthy mental personality. By this means, even in the slighter forms of dementia præcox, the proceedings and behaviour of the patients keep up their incomprehensibility and their confusing tendency to jump from one thing to another.

No one defined colouring of mood is to be observed in our patient. On the contrary, he is completely dull emotionally, shows no interest in what goes on around him, not even on the visits of his nearest relations, in whom he shows no interest, and to whom he speaks not a word ; he has no wishes, and does not care about anything. At the same time it can be seen from his occasional utterances that he is clear as to his situation, knows the people about him, and takes in what one says to him. Here again we find the same grouping of the disturbances in the order in which we were able to place them in the cases of dementia præcox already discussed.

This conception is also in accordance with the previous history of the patient. His father was temporarily insane, and could not on that account finish his college course. The patient himself learnt with difficulty, after having struggled through typhus in his youth ; was easily excited, anxious, and inclined to hypochondriacal broodings. He fell ill six months ago. As the result of differences of opinion as to plans of marriage, he became anxious, believed himself to be mocked by everyone, was afraid of coming into contact with the public prosecutor, and finally, because he looked upon his life as threatened, sprang out of the window one night in his shirt, fracturing his *os calcis*. On admittance, the patient was decidedly dull ; he declared himself quite ready to remain in the hospital, although he was not insane, but only suffered from delusions. He had thought he would be murdered ; everything appeared to him so changed ; voices spoke to him about all sorts of family affairs ; catalepsy, echolalia and echopraxis were very marked. There was no demonstration of physical disturbances except an old scar on the head and a newly-formed callus on the foot.

In the further course of the illness the patient's want of judgment, as well as his emotional dulness, became more and more marked. He thought that the meat placed before him to eat was human flesh ; everything in the newspapers was about

himself ; the assassination of the Empress of Austria and the Peace Conference had to do with him ; his mother wanted to murder him ; he was the worst man alive. The doctor he designated as the German Emperor, who had dyed his beard ; another gentleman as Christ—all in quite an indifferent tone of voice, without a trace of emotion. Sometimes he said senseless rhymes to himself—"Nem, bem, kem, dem, schem, rem"—over and over again, or he repeated this incomprehensible sentence : "One for all, and all for one, and two for all, and three for all, here and there everywhere, and 'Almightiness,' and 'Almightiness,' and 'Almightiness,'" and so on. Gradually he became more and more quiet, and gave up speaking and eating, hid himself under the bedclothes, took up extremely uncomfortable attitudes, and allowed the saliva to run out of his mouth ; he has only latterly become rather more active again.

A whole series of disturbances recur here with which we are already familiar : the illusions, the strange hallucinations, the dulness, the refusal of food, the twaddling speech, with play on words and stereotyped repetition. Through other symptoms, such as the hiding, the strange attitudes, and the slobbering, which are likewise frequent in dementia præcox, the description of katatonic stupor becomes still more complete. As to the future course of the case, the same will hold good as in that of the first patient ; probably the disturbances, now so well defined, will gradually clear up, while a more or less high grade of mental enfeeblement may remain.*

The woman, aged twenty-eight, whom I will now show you is perhaps calculated to give you an idea of the further development of these cases. The patient has no heredity, married seven years ago, and has had four children. Headache, loss of appetite, and depression appeared at the first confinement, but only for some months. The same slight disturbances were noticed after the subsequent confinements also, a new and graver symptom showing itself after the last. The patient gave up working, ideas of persecution made their appearance, and she thought someone wanted to kill her by poisoning her food. She became indifferent, capricious, resistive, much reduced in physical health, and ate little. At the same time, she remained quite collected, and understood what was said to her.

* The patient is somewhat improved, but is twaddling and imbecile. He has gained 24 kilogrammes in weight, and has been taken home into family custody.

On admission, nine months after the last confinement, the patient was mentally inaccessible, discontented, and fretful; desired to go home again at once; gave no information as to her condition, because she said she was not ill, and could work; did not trouble about her surroundings or employ herself. One gathered from her occasional utterances, as well as from her letters, which only contained in endless repetition the entreaty to be fetched away, that she was clear as to where she was; she also did simple sums very slowly, but correctly. A test of her knowledge and memory was impossible, as she did not answer questions directed to that end. In any case, an extraordinary poverty of thought existed. Delusions were not prominent, except perhaps single complaints that she appears to have been sold, and that people were angry with her; hallucinations were absent. In the emotional province, except for an irritable, peevish character, complete vacuity existed. The patient sat there apathetic and dull; she allowed no emotion to be perceived either at the Christmas festival or with visitors, not saying a word to them, while she devoured greedily the sweetmeats they had brought with them. All attempts to get on friendly terms with her she met with obstinate resistance. She remained nearly always mute, frequently refused food, would not remain in bed at night, refused to work, would take no medicine, often made herself dirty, neglecting the calls of nature, and so on.

As you may see, the patient now sits with bent head, holding herself crouched up. On being spoken to she does not look up, but now and then throws a furtive glance around her if anything striking occurs. On shaking hands she does not give her hand, and if you grasp it you feel the arm become rigid. If you raise her head, it immediately goes down again; if you try to bend it down or to incline it sideways, it springs back again in the opposite direction; if, however, you put her leg on a chair, the patient allows it to remain in this uncomfortable position, a sign that indications of catalepsy also exist, side by side with negativism, which have occasionally been seen at other times. The features are rigid, like a mask; the lips slightly stretched out like a snout, a sign which Kahlbaum has designated as "snout cramp." Sometimes also slight tremors are seen round the mouth. After urgent and repeated orders to get up, the patient begins to rise slowly and jerkily, only suddenly to sit down

again. It can be seen clearly on this and on numberless other occasions how the original impulse subsequently becomes thwarted through a counter-impulse. The patient cannot be persuaded to write on the blackboard. Lastly, the lively exaggerations of the knee-jerks, the mechanical excitability of the facials, strong idio-muscular swellings on tapping the muscles, the somewhat puffy face and the extremely poor action of the heart, are also noteworthy.

The *diagnosis of katatonia*, in face of the results of the examination submitted to us, cannot be doubted. Probably it is already a question of a final stage of dementia, which is hardly now capable of more extensive improvement*—so, at least, the marked signs of a far-advanced mental weakness indicate. The long duration of the illness also points to the fact that we have no longer to deal with a fresh example of disease still in a state of fusion. It certainly appears, up till now, as if a certain improvement has occurred after each separate attack of the disease, but yet on the whole a gradual downward progress of the malady has taken place. Finally, it is a very important experience that *childbirth* has always worked unfavourably. This corresponds entirely with our former observations, which frequently show us a connection of the disease in women with the process of reproduction. In such cases, the very great revolutions in the economy of the body probably play a significant causative part.

* The patient remained for five years in an asylum, quite imbecile, mute, negative, affected, at times excited, and died of phthisis.

LECTURE V

STATES OF DEPRESSION IN GENERAL PARALYSIS

GENTLEMEN,—You will see at once that the man, aged forty, whom I am to bring before you to-day is suffering from depression. This haggard-looking patient, very pale and ill-nourished, sits in a languid attitude, staring straight before him with a gloomy, listless air, and pays us no particular attention. He hardly even turns his head when spoken to, but he answers in a low voice and very laconically. He gives his age, and says that he was a commercial traveller, and that he is married and has two children living, while one has died of fits. He has been about a great deal. He was at Basle last, travelling, but only remembers the station and the porters there. He cannot recollect anything more. In answer to questions, he shows considerable knowledge of history and geography, and does sums fairly well, but suddenly remarks, “I cannot understand at all where the whole world has gone—the five continents.” And yet, he goes on, he used to know something of all the towns, but now there is absolutely nothing left of them. He says that his marriage is no connection; there are no husband and no wife, and the children are mere phantoms—“That has no place in my brain.” There is nothing left of himself but “this miserable skeleton.” The asylum and the people here are the only remains of the whole world. “The whole glory was gone at a single blow,” and that has been brought about by him. All this is said in a tired voice, without emotion, but he will not admit that his fancies are morbid. He knows the doctors, but says he is not ill.

After the conclusions to which we have come in previous lectures, we cannot take the state of depression before us for melancholia. Such a diagnosis is excluded by the patient's comparative youth and the indifference with which he makes

the most extraordinary assertions—a symptom always indicating a certain amount of weakness of judgment. For the same reason—the absence of deep emotional feeling—he can hardly be suffering from maniacal-depressive insanity. There are no signs of impeded volition. He speaks very little and in a low tone, but evidently because he does not feel any need of opening his heart, and not because of an obstacle he cannot overcome. On the other hand, we are strongly reminded of cases of dementia præcox by the languid way in which the patient brings forward the most senseless delusions. But we cannot discover any of those remarkable disturbances of volition which generally give so peculiar a stamp to the picture of dementia præcox. The patient shows neither automatic obedience, negativism, nor stereotypism; he does not grimace, and, though his movements are slow and weak, they are natural and unconstrained. But, as these symptoms are not necessarily present in dementia præcox, it would be difficult to make the correct distinction if the *physical examination* of the patient did not bring complete enlightenment. We see that not only is the right pupil more dilated than the left, but both are completely *inactive to light*, although the reaction to distance is maintained. The right facial nerve is paretic, and the labio-nasal folds are effaced. The tongue is put out with tremulous jerks, and the knee-jerks are exaggerated on both sides. The sense of touch is normal, but the patient feels no pain if you stick a needle through a fold of his skin when his attention has been diverted. His walk is rather unsteady, and he sways a little when he stands with his eyes shut.

The evidence of physical disturbances of this kind makes it absolutely certain that our patient's mental weakness depends on that progressive disablement of the brain which is generally called *Dementia Paralytica*; or *General Paralysis of the Insane*. In this disease we find a peculiar feeble-mindedness, advancing to the most extreme degree, in conjunction with a number of gross disturbances of the brain and spinal cord, some of which we have already discovered in our patient. The reflex sluggishness of the pupils, the hypalgesia, and the change in the knee reflexes, are particularly important. So also are certain disturbances of speech and writing, which can hardly be established in this case, with so-called paralytic attacks, and finally, towards the end of the illness, palsy and contraction of the most diverse muscles of the body. Rather less common are palsy of the muscles of the

eyes, atrophy of the optic nerve, and many other results of the widespread disturbances in the brain and spinal cord. The disease seems always to develop after *syphilitic infection*, and hardly ever before from ten to twenty years have elapsed. At any rate, according to our own experience, it must seem questionable if cases which have not been preceded by syphilis are really of the same kind as the bulk of those observed.

In the case of our present patient, such an attack took place twelve or fourteen years ago. At that time he was treated, for skin disease and an affection of the mouth, with blue ointment and iodide of potassium. Four years ago he suffered for a time from double vision, which soon disappeared, but returned a year ago. He had been irritable for two years, and in the last half-year there was loss of memory, particularly for the most recent events, and he slept badly. The actual outbreak of the disease followed the journey when he was finally taken into custody on account of his extraordinary behaviour. At home he expressed ideas of sin—that he had made false entries in his books and would be locked up, and was bringing ruin on his friends as well as himself. In the hospital he presented very much the same symptoms about a year ago as he does now. He refused to eat because everything cost too much, thought he was not ill, and wanted to go home. It was noticed that he sometimes gave the year of his birth correctly and sometimes incorrectly. Weakness of the bladder was observed, besides the physical disturbances already mentioned. In four months the patient was let out on parole, and even began to occupy himself at home, but very soon he declared that his brain had been cleared out with a broom while he was here, and a funnel put in. As he was excited at the same time, and threatened his wife, he had to be brought back to the hospital after only a fortnight.

General paralysis, in our experience, usually leads to *death* in the course of a few years. Now and then it may last for eight or ten years, or sometimes even longer, but the end generally comes in four or five, and often very much sooner. This shows the very great importance of a correct and early diagnosis of the disease. When once the diagnosis has been made, we can immediately form a reliable prognosis of the case in accordance with our clinical consideration of the patient. Our present patient will succumb to his illness within a fairly calculable time.*

* The patient died when the paralysis had lasted not quite four years.

The second patient I should like to show you is a locksmith, aged thirty-eight. He has considerable difficulty in understanding what is said to him, but is quite willing to tell about his circumstances. A sister died of an "abscess in the head." He used to drink a good deal at one time. He married four years ago, and has three healthy children. Nine months ago he noticed that his memory was failing. He could not do his work properly, his sight grew bad, and he was irritable and did not get enough sleep. Speech became difficult, and on many days he could not speak at all. He had headaches, could not run as well as he did before, and became depressed. Even as he tells us this we see that he is very uncertain in his statement of time, cannot quickly recall and calculate relations of time, and does not notice his gross contradictions in this respect himself. He also makes great mistakes in doing simple sums, and often cannot give an answer at all. But his other school-knowledge is quite adequate to his degree of education. He makes very extraordinary assertions about his health. Clutching at his throat, he maintains that his throat is growing together, his larynx has stuck, his sexual parts are rotten, he has not had a stool for weeks. "I am done for, I have lied, ready, amen! Lay me in the grave; telegraph home for them to come! I have sinned; everything is rotten!" He says he will die, he has to spit so much; his food does not go into his stomach; he has millions in his stomach. All this is said in a peculiar singing tone, without any perceptible emotion.

The depth of this patient's dementia is evident from his emotional dulness and the senseless nature of his delusions, compared with his collectedness in other respects. Hence, of the diseases so far known to us, there would at first be a question of dementia præcox as well as of general paralysis. We will be inclined to decide for the latter possibility, when we take into account the *disturbance of memory*, noticed by the patient himself, and clearly seen in his statement of dates. But it is the physical examination which turns the scale. During the patient's narrative we had been struck by the indistinctness and difficulty of his enunciation, as well as by the monotonous pitch of voice which is often observed in paralytics. The patient seems to chew his words, without bringing out the separate letters clearly. This "lalling" pronunciation, and other forms of disturbance of speech, are symptoms commonly accompanying the growing disablement of the brain. Our patient's writing, too,

is unsteady and hurried-looking. The long strokes in particular are not straight and smooth, but show little irregular bends. The pupils are equal, but very much contracted, and react only very slowly and imperfectly to light and distance. When he repeats difficult words after someone, the effort is accompanied by facial spasms. The tongue trembles strongly when it is put out, and the left labio-nasal fold is effaced. Unexpected pricks with a needle are not perceived with ordinary pain. The knee-jerks cannot be excited, and standing with the eyes shut produces very marked swaying.

After these results of the examination, of which the disturbance of speech, the almost entire loss of reaction to light in the pupils, and the absence of knee-jerks are particularly important, the presence of general paralysis of the insane cannot be doubted. Moreover, a disturbance of the bladder, in the form of retention of urine, was repeatedly observed. As for the development of the disease, we have learned from his wife that even eighteen months ago this hard-working and temperate man lived in great seclusion, worried a great deal, was clumsy in thinking, and was apt to forget things. For four or five months he had thought that his throat was growing together, had become very sad, would not eat without much persuasion, and hardly spoke at all. From observation in the hospital, I may add that he was much excited from time to time, got out of bed a great deal, sat on the floor in his shirt, was obstinate, and all night long repeated rhythmical phrases quite devoid of sense—"Grüner Raser, grober Raser, bunter Kater, grober Aber, ewiger Raben, Raben haben, rother Kater, Bummel-raber, gelber Kater, der Rosen graben," and so on. As this kind of play on syllables also occurs in katatonic patients, it might make the distinction of the present condition from dementia præcox very difficult but for the appearance of physical disturbances. The same is true of the abrupt change from complete refusal of food to voracious eating, which we repeatedly noticed in the patient. The delusions generally took the direction already indicated. He was a little boy, "only so big," weighed only 12 pounds, had a chronic crisis in his stomach. He was also in high spirits occasionally, and had senseless ideas of grandeur. At such times he felt quite well, and wished to pay a visit to his sister. An attempt at discharging him failed, for he ran naked into the street after he went home.*

* The patient died, a few months later, in a nursing asylum.

This patient, too, has had syphilitic infection, and that thirteen or fourteen years ago, and has been through a mercurial cure on that account. This might perhaps have induced us to repeat the treatment, as was actually done in our first case by the doctor under whose care it came. Unfortunately, the experience of alienists in this matter is very uncertain at present. As an improvement, which sometimes goes a long way, often takes place in cases of paralytic disturbance, without any interference at all, or through simple rest or keeping in bed, it is naturally very difficult to come to a clear decision as to the efficacy of any particular treatment. For this reason, many cases are reported in which a favourable effect is ascribed to treatment for syphilis. From my own experience, I must consider the usefulness of mercurial treatment very doubtful, and I have so often seen sudden loss of strength result from such measures in paralytic cases that I cannot find courage to recommend the remedy any longer. If one wished to set one's conscience at rest, one might confine one's self to the administration of iodide of potassium, which at any rate is harmless. It is only in the not very frequent cases where luetic symptoms are still present that the mercurial method may perhaps be appropriate. The inefficacy of treatment for syphilis in general paralysis is one of the most important reasons against the assumption that the latter disease is merely to be considered a syphilitic manifestation. The real nature of the subtle connection which undoubtedly exists does not appear to have been satisfactorily explained at present, but so far everything seems to show that general paralysis is not actually a syphilitic disease, but an after-disease of syphilis—"a meta-syphilis," as *Möbius* has expressed it.

General paralysis very often begins, as it has done in the cases described, with a state of depression, which may either change later on to symptoms of another kind, or may remain permanent. It is therefore very important to pay close attention to the peculiarities of this state of depression, so as not to be surprised by the unfavourable results. Many paralytics are regarded as melancholics at the beginning of their illness, if the physical signs are not much developed, or even merely as hypochondriacs or neurasthenics. But the almost invariable experience will generally hold good that neurasthenia does not appear in otherwise healthy people without a definite and tangible cause, and that it usually disappears comparatively quickly with rest. It

is also a very important sign that general paralytics are usually only imperfectly conscious of their real condition—their weakness of thought, their irritability, their emotional dulness, and the loss of their power of work—and that they complain of all kinds of extraordinary imaginary illnesses instead. In neurasthenics, on the other hand, we are usually able to discover only a few unimportant disturbances, although these few are very painfully perceived by the patients themselves. As a rule, this is specially clear with regard to the state of the memory. While the paralytic may completely fail to notice little contradictions and uncertainties, and be surprised when they are pointed out, the neurasthenic complains of the constant failure of his memory, when there is nothing more the matter with him than the inability to impress names or figures on the mind, which is often met with within the limits of health.

It may be very difficult to differentiate paralysis of this kind from melancholia, or the depressed stage of maniacal-depressive insanity. Here you see a married Government official, aged forty-three, who fell ill rather suddenly six months ago, after having to give evidence as a witness to the peculations of a fellow-official. As the result of this emotional shock, he became apprehensive, distrustful, and irritable, was afraid he would be arrested, thought he heard the police coming, fancied they were in his room at night, and expressed ideas of suicide. He also became unmethodical and forgetful at his work. On admission to the hospital, he was collected and clear about his position, and showed a lively sense of illness, without understanding the symptoms. His general knowledge seemed defective, although he still did sums fairly well. His recollection of the most recent events was very unreliable, especially with regard to the succession of time. There was well-marked apprehension; he had picked at his thumbs in his unrest, and showed a certain tremulous fussiness. Very soon definite delusions were developed. Everything seemed strange and altered to him. Witchcraft was practised, and a strange sign-language used, as if he had been up to God knows what. He was poisoned, treated as a criminal, despised, and robbed. The days seemed different. "It is scarcely day when it is night again, and then day again just as soon." The warders talked about his wife. They said that she was starving and bore another name. Voices said he had taken castor-oil, and called to him, "You! that is blind Hess!" Now and then there were

indications of exaggerated self-esteem, and he said that he had considerable means at home. His feeding was very difficult, and often met with strong resistance. He slept very little.

In consequence of all this, the slightly-built patient is very much reduced in physical condition. His hair is very gray, and his features are lined and sunken, so that in his languid attitude he gives an impression of premature old age. He knows his surroundings, but does not know exactly how long he has been here or what he has been through lately, and confuses one day with another. He speaks of his indistinct delusions without any deep emotion, and troubles little about his future. But he grows very apprehensive and resistant as soon as you try to do anything with him. At the physical examination he takes up an awkward position, and makes all his movements—such as putting out his tongue or shutting his eyes—with a convulsive effort and with spasm of numerous auxiliary muscles. We observe a slight ptosis on the right side, almost entire loss of reaction to light in both pupils, and great exaggeration of the knee-jerks. There are also slight tremors of the outspread fingers and a little unsteadiness on standing with the eyes shut.

The condition before us was called "melancholia" by the doctor who treated it. If by this you simply understand a state of depression, there is nothing to be said against the diagnosis. But you know from previous lectures that the difficulty of diagnosis only begins here. In the patient's psychical condition the great emotional dulness and loss of memory contradict the idea of melancholia as defined by us; neither does the complete subordination of ideas of sin to other ideas of insignificance agree with the picture of melancholia. In maniacal-depressive insanity we should also expect to find more definite emotional depression, especially in the form of a sense of the patient's own incapacity. The absence of independent disturbances of volition, taken along with the marked deterioration of memory, is opposed to the notion of dementia præcox, a disease in which these conditions are generally reversed. Even if we admit that these considerations are not in themselves satisfactory grounds for a diagnosis by exclusion, they yet add weight to the scale when we find physical disturbances which point with great probability to the existence of gross brain lesions.

Previous luetic infection cannot be made out in this patient, but we must not overlook the fact that his wife is childless, and

has aborted twice in the third month, which makes an earlier attack of syphilis not improbable. Perhaps I should add that some years ago the patient was very intemperate, that his mother was a drunkard, and died in an apoplectic fit, and that a sister's child is in a lunatic asylum.*

In all three cases of general paralysis which you have seen to-day the victims were middle-aged men. This is quite in accordance with the rule. General paralysis is from three to five times as frequent in men as in women ; indeed, among the educated classes the comparison is even more favourable to women. The overwhelming majority of general paralytics are from thirty-five to forty-five years old, but women become ill on the whole rather earlier or else rather later. Men of certain occupations, like officers and shopkeepers, are frequently attacked, while others, such as Catholic priests, are very seldom victims. The disease is more widely spread in large towns than in the country, especially in remote mountain districts. The cause of these and many other differences can only be the greater prevalence of syphilis in certain places and professions than in others.

* The patient is still living with his wife, after more than four years of illness. He has hallucinations of hearing and ideas of persecution, and is very imbecile. The physical disturbances remain unchanged.

LECTURE VI

EPILEPTIC INSANITY

GENTLEMEN,—Looking at the strongly-built and well-nourished man, aged fifty-five, whom you have before you to-day, you will not see anything remarkable in his demeanour, except perhaps a certain listlessness in his manner. In all other respects he behaves quite as if he were sane. He greets me politely, sits down, and waits till he is spoken to. He gives a consecutive though only a brief account of his circumstances, knows where he is, and how long he has been here, can tell what day and year it is, and knows the people about him. When asked if he is ill, he begins to wail, saying that his head is so giddy, that he is “so tired of life, has had enough of life.” It is all over with him ; he will never be well again, and does not want to live any longer ; he is sick of life. They ought to give him something to make an end of it, and then he would not be alive to-morrow. His head and his belly hurt, and his heart-water comes up, and besides that, though he is an old soldier, he is always being slighted, and is of less account than any young scamp. The good God ought to take him to Himself. He can eat nothing now.

His temper during these pious ejaculations is peevish and irritable. He bursts out if you touch on unpleasant circumstances of his life, such as his relations to his wife, but is easily quieted. After we have asked him many questions, he gives a rather garrulous sketch of his career, to the following effect : Our patient belongs to a healthy family, and was well himself until the campaign of 1870-71, when he was present at several battles. At the mention of this he brightens up a little. There are many incidents he can still relate, and he says that he was “as strapping a fellow as any.” In February, 1871, he was very ill of typhus, and was sent home. He lay for nine weeks quite

confused and delirious. He saw the tumult of battle, shot, and cried "Hurrah!" without knowing about it afterwards. This was followed by a palsy of the left side, also affecting the tongue and eye. It got better only very slowly. There was loss of sensation in the disabled parts, and sight was affected on the same side. After his recovery, he now and then had sudden fainting fits, after which he was depressed, unfit for work, and tired of life, and it was quite a fortnight before he felt well again. At such times he had vivid dreams about soldiering, often bit his tongue till it bled, and once fell out of bed and knocked in his front teeth. Another time he fell in the garden and broke the bridge of his nose. The depression came on a few days before these attacks. He knew nothing of what had happened afterwards.

The attacks gradually grew worse, and here alcohol has played a part, although the patient says nothing about it. But apparently he could not take much, got greatly excited on a small quantity, and easily became violent, without knowing anything about it afterwards. As the result of this, he passed several times out of one asylum into another, and meanwhile his wife was unfaithful to him. When the question is put to him, he admits that he has drunk, especially during the attacks, "to forget himself," as it made it easier. Once he attempted suicide by hanging, but only knows what he has been told about it. Attacks of weariness of life still come on about once a month, and last for several days. It comes "flying, as it were," and also disappears suddenly—"clears up." As a rule, these attacks, which the patient quite recognises as morbid—as his "nerve complaint"—are accompanied by loss of appetite and a furred tongue. He connects them with the weather; dull weather he cannot stand. The cause of his being brought to the asylum this time was an indecent assault on a little girl, three and a quarter years old, whom he had taken for a walk. In the morning of that day he had a fainting fit, and then drank a few tumblers of wine. Then, according to his own account, he lost his senses, and knew nothing at all of what he did, but was depressed for a week after and threatened suicide.

Apart from these attacks, the patient shows a certain poverty of thought, but gets on well enough without any difficulty in simple situations, occupies himself of his own accord, and behaves in an orderly way. He is very fond of talking about

his military exploits, which he ornaments with all kinds of particulars, and likes to set himself in a favourable light as "an old soldier." His exaggerated self-esteem makes him look down on those around him; he thinks he works better than any of the warders, and knows more than the gardener. He shows a certain ceremonious politeness. He never forgets to salute the doctor, however often he may see him in the course of the day, and expects to be treated with proper respect in return. His talk, and still more the letters he writes to various acquaintances in better circumstances, to ask for a present, are garnished with a quantity of polite phrases and pious expressions, in which "The good God, who never forsakes a German, and least of all an old soldier," has a particularly prominent place.

In the case before us, we have to deal with a kind of depression differing in several essential particulars from all the forms we have as yet considered. The first of these are its sudden appearance and its short duration. It is there in the morning, when he wakes, as if it had "come flying," and disappears in a few days as suddenly as it came. But he has numerous attacks of this, recurring with considerable regularity, year in and year out. The disturbance is therefore markedly *periodical*, a circumstance pointing to a deeper morbid foundation, of which the individual attacks must be the manifestation, since they are never preceded by any special cause.

The road to the right interpretation is pointed out by the *fainting fits*, in which the patient has injured himself and bitten his tongue. These are undoubtedly signs of the disease called *Epilepsy*, of which the most important criterion, in my opinion, is the more or less regular return of the very transient symptoms. It is true that in this case we do not hear of actual convulsive seizures, but the patient's wife said years ago that he sometimes became quite rigid during the fainting fits, so that it was impossible to open his mouth. The depression used to be very closely connected with these fainting fits, beginning a short time before and lasting for a few days after them, while memory was very much clouded afterwards. Here there was evidently haziness of consciousness, such as is very often seen in connection with epileptic attacks. At the time of the patient's offence against decency there was the same depression and haziness of consciousness, or *state of semi-consciousness*, as such a condition is generally called, associated with a fainting fit. In the asylum, the de-

pression has appeared quite independently, and without any marked loss of memory, in the form of attacks, but not of fainting fits. Perhaps the reason for this is that the patient has been completely deprived of alcohol, which usually and regularly aggravates the symptoms of epilepsy, and certainly did so in his case.*

We learn from the case before us that these periodical attacks of depression, which we have seen connected with fainting fits and states of semi-consciousness, are to be regarded as manifestations of epilepsy. We may add, on the strength of repeated experience, that during these periods of depression comparatively small quantities of alcohol may lead to very severe conditions of semi-consciousness. This is perhaps the more comprehensible, because it may be seen from experiments that, in addition to the increased difficulty of comprehension, all the impulses of the will have more uncontrolled liberty during the depression. This loss of control finds expression in the peculiar clinical colouring of the condition—*i.e.*, the irritable, peevish "wound-up" temper. Now, alcohol works in exactly the same direction, so that it must find a very favourable soil in such a condition for engendering states of excitement with more or less complete loss of consciousness.

The cause of epileptic disturbances must undoubtedly be sought in permanent changes in the brain, usually congenital, or acquired in early youth. In the present case the typhoid affection of the brain seems to have brought on the illness, although there are no remains of it to be seen now. A causal connection with the setting in of epilepsy is also attributed to *injuries to the head*. I will show you now a workman, aged thirty, who was kicked on the forehead by a horse nine years ago in the course of his military service. At the time of the accident he was unconscious for half a day, and spent four weeks in hospital, but he got quite well again, except for frequent headaches, particularly in the region of the forehead. About five years later, as he was sitting at his joiner's bench, a sudden darkness came over his eyes. He lost consciousness, fell down, and felt very much depressed when he awoke again after a short time. He had a fresh attack a year later, and from that time onwards the attacks have gradually become

* The patient has been for some years in a nursing asylum, practically in the same state.

more and more frequent, till now they occur every three or four weeks. They are preceded by a feeling of being "electrified in his head," so that he can lie down in good time. During the attacks there are twitchings of his whole body, lasting only a few minutes. His lips have often been quite raw afterwards, and once he passed urine involuntarily during an attack.

Besides these convulsive seizures, slight and quickly-passing attacks of giddiness frequently occurred, and the patient also speaks of apprehensive, irritable ill-humour, which has recurred several times in the last six months. A feeling of ill-temper and uneasiness suddenly comes over him, without any cause, and he cannot help "puzzling over a thought he cannot grasp." Then an extraordinary irritability sets in, accompanied by severe headaches, driving him at the least occasion to furious abuse and threats, and even to actual violence. After a few hours or sometimes days, this condition is suddenly gone, and he does not understand how he can have got so much excited. Once or twice his recollection of what he has done during the attack has been far from clear. Indulgence in alcohol, however moderate, seems to have favoured the outbreak of the attacks. If the patient drank during the period of ill-humour, he was rather sleepy at first, but then became worse than before.

We have had opportunities, while he has been in the hospital, of observing a considerable number of attacks of this ill-humour, appearing at irregular intervals of from a week to a fortnight. While the patient is usually friendly, manageable, and very quiet, at these times, generally early in the morning, when he got up, he seemed tired, monosyllabic, slightly dazed, and fretful, complained in a grumbling way about some trifle or other, and had headaches. Once he took part in a dispute between two fellow-patients, and could only be kept from violence with difficulty. If he was left to lie quietly in bed, as a rule he was free and intelligent next day, and looked on the past ill-humour as morbid. "Every word I heard annoyed me. I have times when I am not irritable at all, and then again times when I get wild at every trifle."

The physical examination of this strongly-built and well-nourished man, who willingly gives a full account of his condition, and came here of his own accord, shows a slight thickening of the root of the nose, particularly on the right side. A depression may be felt running across over the nasal bone, and

extending as far as the orbit of the right eye. The forehead is sensitive to tapping, particularly on the right side. The septum of the nose is bent to the right. Above, on the left, there is a swelling in the form of a fold between the side-wall and the septum. The left pupil is rather larger than the right. The fingers show fine tremors, and the knee reflexes are exaggerated.

The agreement of this clinical picture with the last is very instructive. Here, too, we have fainting fits, convulsive seizures, attacks of giddiness, and the peculiar ill-humour which returns at short intervals without apparent cause. There is also the toxic effect of alcohol. But in the second case, which is milder, and has not lasted so long, the general changes in mental life—the narrowing of the horizon, the exaggerated self-esteem, and the tendency to phrases and pious saws—are not yet developed. The illness is definitely ascribed by the patient to the injury to his head, and he says that his irritability first came on at the time of the accident. It is remarkable that, in the asylum, an attack of ill-humour followed immediately on a minute examination of the nose. The patient went directly afterwards to his wife, abused her without any cause, and turned her out of the house. He was sorry for what he had done by the evening, and begged her pardon. This occurrence would point to some connection between the injury to the nose and the patient's attacks. It seems strange that the disease should apparently have set in several years after the accident. But the patient's increased irritability is said to have been noticed by his relations immediately after his discharge from military service, and the headaches, which now regularly accompany the ill-humour, began very soon after the injury. We have therefore tried to obviate the ill-humour by painting the nose with cocaine solution as soon as it begins, but as the separate attacks last for so short a time in any case, it has not been possible to form a definite opinion as to the efficacy of the treatment. On the other hand, *entire abstention from alcohol* seems to have had a favourable effect both on the severity and on the frequency of the attacks.* Finally, I ought to tell you that a sister of our patient is insane, and his father has suffered from epilepsy. Even if the injury to his head has played a part in the development of his illness,

* The patient is at the present time very intelligent, and has worked industriously for years in the factory, without any severe disturbances having reappeared.

we must not overlook the fact that he was probably predisposed to epilepsy.

The two cases described have already shown the great diversity of epileptic manifestations. Besides the actual convulsive seizures, we have seen fainting fits, attacks of giddiness, states of semi-consciousness, and depression, or ill-humour. All these very different forms under which epilepsy may appear may be combined in the same case. Sometimes they immediately follow one another, and they all show the same fundamental characteristic of periodicity. Hence *Sammt* has already expressed the opinion that these disturbances, while apparently so different, are only equivalent manifestations of one and the same state of disease, and that they can to some extent replace each other. He therefore proposed to give the name of "*equivalents*" to the numerous forms which the epileptic attack may take, to show that they are only various forms of the actual convulsive seizure characteristic of epilepsy. This view is at any rate so far correct that we are justified in regarding all the phenomena I have brought to your notice, and many others besides, as symptoms of epileptic disease. Where one of them has been undoubtedly observed, we generally see some of the remaining forms peculiar to the illness developed sooner or later. In any one case, the clinical evolution of a single equivalent may prevail, while others appear at longer intervals, and in a less marked form. In my opinion, only *the frequent and entirely similar return of the symptoms without external cause* is conclusive of the diagnosis. From this point of view, the convulsive seizures, on which the greatest stress is generally laid for the establishment of epilepsy, would form certainly a very important, and probably the most severe, symptom of the disease. But, under some circumstances, we will have to consider cases in which convulsive attacks have never made their appearance to be epileptic, if only one or more of the known equivalents have been identified with certainty as frequently and uniformly recurring.

The next patient, a brewer aged thirty-two, who was brought here from prison, presents a very varied development of the attacks. Early in the morning, at about five o'clock, he was turned out of a public-house in a state of intoxication. He had made a great deal of noise, and when he was arrested by the police he screamed frantically, hit out all round him, and bit

them. Although he maintained afterwards that he knew nothing about the whole affair, but had had his "attack," he was condemned to fourteen days' imprisonment, because his behaviour did not agree with *Kraft-Ebing's* description of the epileptic seizure. Towards the end of his term of imprisonment, the patient suddenly became very much excited and very violent, screamed out that the devil was in the cell, smashed everything he could reach, and was then gagged and brought in a strait-jacket to the hospital. Here he gave a correct account of his personal circumstances, but was very much dazed and very clouded about his surroundings, and the events which had just taken place. He said he had seen his mother and the good God, had driven to heaven in a splendid coach, had heard singing, and had been very much frightened. At his clinical examination he took the assistant for one of the angels, and myself for the "dear Father, who gives us things," and thought successively that he was in Paradise, in hospital, and before the assize court. In the course of the next few days visions of beasts set in. He saw beetles, rats, and mice, and people without heads, who hit him with whips, and heard military music. We will see later on that these last appearances were certainly to be referred to his abuse of alcohol. He became clear again in a few days, and at once recognised the visions of beasts as morbid, while it was not till ten days later that he could take a common-sense view of his experiences in heaven.

As you may see, the thick-set, powerfully-built patient behaves naturally, and gives a connected, though very long-winded, account of his past history and present condition. The only physical indications worth noticing are the old scar of a bite on the tongue, and a certain sensitiveness to pressure on the nerve-trunks, which is certainly connected with his taste for alcohol. He tells us that he has suffered since he was eleven years old from the "falling sickness," which set in after scarlet fever. Sometimes the disease has appeared every day. It comes suddenly in his head; then he knows nothing more, and falls down, as he has been told. That may last two or three hours; afterwards he has rather a headache, and knows nothing about the syncopal attack. He also has slight attacks in which he just loses consciousness, and comes to himself again. That has often happened of late years, and has lasted a few minutes. He does not fall down in these attacks. His mood is joyous;

he hopes to be well again soon, and behaves in a good-natured, confiding way to the doctor. He does not trouble much about his future. He has drunk a good deal on account of his occupation, and his life has been a very unsteady one. He has been punished several times for assaults and damage to property, committed in a state of great excitement. Once he was found at night in a strange courtyard, and, without saying a word, he gave several stabs with a knife to a married couple, who called him to account. He says that he knows absolutely nothing about this.

Observation in the hospital showed a number of different signs and symptoms. First, we saw ordinary and very severe convulsive seizures, then simple fainting fits of short duration, then the quite slight and transitory defections of consciousness described by himself, usually called "*petit mal*." In the midst of a conversation he suddenly said: "Now it's coming; now everything seems confused; it's growing dark before my eyes." His expression was strained, he leaned against the wall, and stammered some incoherent words. Then after a few seconds he said: "There, now it's better; now it's over." In connection with the convulsions, either before or after them, *attacks of rage* occurred, with maniacal disturbance of consciousness, in which he mistook his surroundings, stormed recklessly, and hit out all round. It must have been such a condition which led to his last arrest. We know that in epileptics alcohol is particularly apt to bring on excitement of this kind with a dazed condition. This is the so-called "*pathological state of intoxication*."

The periods of ill-humour, which have been very frequent in this patient, are to be regarded as the milder and mildest forms of the attacks. At these periods, though generally good-natured and contented, he grumbled and felt himself slighted, demanded to be let out soon, threatened to smash up everything, and occasionally was violent. After a few hours, or at the latest next day, he was friendly again, began at once to occupy himself industriously, and understood perfectly well that he had been ill. Lastly, peculiar *delirious conditions* also came under observation—"dreamings," as the patient called them. One night he thought he was in his married sister's house, and talked to his dead mother; another time it seemed in the night as if his step-father gave him money. "All at once I thought,

Good God! where can I really be? They can't have let me out of the asylum, and I can't have run away either. Where did I get the money? And yet I mustn't drink!" The visit to heaven, which he thought he made when he was in the prison, must certainly also be supposed to belong to this group of symptoms, even if there was alcoholic delirium at the same time. I think that the difference comes out very clearly in the quicker correction of his ideas about the alcoholic visions. Perhaps it is also due to such delirious conditions that once, when the patient was at his work, he found himself standing up on the window-rail, without knowing how he had come there. Another time he was seen lying in bed, plucking at the counterpane with a monotonous movement, and murmuring incomprehensibly to himself, apparently in a deeply stupefied condition.

One or more of these attacks of various kinds occurred almost every day, generally several together in groups. The patient was treated with bromide of soda, but with hardly any result. The employment of opium in increasing doses up to 60 drops three times a day, with the sudden substitution of 12 grammes of the bromide, which has recently been recommended, was also without any good effect. It is possible, however, that the condition may still be improved to a certain extent by a very long continuation of the treatment with bromides in doses of from 4 to 6 grammes. Complete abstention from alcohol is a matter of course.*

* The patient was transferred to a nursing asylum.

LECTURE VII

MANIACAL EXCITEMENT

GENTLEMEN,—In the course of our lectures hitherto we have considered widely different states of depression. It has been my aim to show you that sad or apprehensive depression permits in itself of no conclusions as to the disease through which it is engendered. It is far more our task to become clear as to the special clinical meaning of this symptom in each separate case. Under some circumstances, we can draw important conclusions as to the nature of the underlying disease merely from the kind of depression, from its duration, from its repeated return, from its trifling depth, and so on ; but often enough it is the consideration of the other symptoms of disease that will first lead us on the right track. Very similar conditions can, at the first glance, be apparent in the course of very different diseases. But inversely we frequently find that the most differentiated and apparently quite opposite conditions can make their appearance in succession as indications of the same malady. Here there is no question of the connection of different independent diseases, as was formerly often believed to be the case. Apart from the frequency of the phenomenon, this is proved to a certainty by the often extraordinarily rapid transition of the alternating pictures, by the occasional mixing of the separate features, and, lastly, by the similarity of the course and its termination.

The powerfully-built and well-nourished merchant, aged fifty, who is brought before you to-day, enters the room with a rapid step, and greets us in a loud voice ; he takes a seat with a courteous bow, and looks about him expectantly and with curiosity. He answers quickly and with assurance as soon as we address him, and gives fluent and pertinent information as to his personal circumstances, as well as

concerning his present position. Very soon he not only answers, but also leads the conversation ; says jokingly that he is not going to relate everything so glibly, but will make the examination a little more difficult, in order that he may see whether we understand anything ourselves. He explains that he suffers from paralysis, makes quite senseless statements, and adds up incorrectly, but is as happy as a king if you go further into things. If you give him free scope, he talks a great deal and with animation, hardly allowing himself to be interrupted ; but he easily loses the thread, forever bringing into his history some new irrelevant details. A short, concise answer cannot be obtained from him ; he has always something to add and to exaggerate. During my lecture he, at intervals, frequently asks for " a hearing," but always draws back with a polite bow. He often addresses his discourse to you students, adverts to student life, interpolates verses from student songs, even making up some topical doggerel rhymes himself.

His frame of mind is joyous and exalted ; he amuses himself with all sorts of jokes, even tolerably risky ones, makes fun of himself and of others, imitates well-known characters, laughs at his own tricks, which he knows how to put in quite a harmless light. For instance, the last few nights before his admission to the hospital he had gadded about to all sorts of taverns and disreputable houses, had drunk hard everywhere, behaved in the highest degree extravagantly, sprinkled himself from head to foot with water in the market-place, and had driven in a cab from one public-house to another in the neighbouring villages. Finally he smashed the mirror, crockery, and furniture in his own house, so that he had to be brought to the hospital under a strong escort of police. For all that, he observes cutely his wife alone is to blame, for she did not treat him properly, nor had she cooked anything decently for him. As a consequence, he had to go to the public-house, and, besides, he must give people something by which to earn a living. He does not consider himself to be ill, but, he adds with a significant smile, if it will give us pleasure, he will remain with us awhile. The patient does not present any physical disturbance, except some wounds that he sustained in being conveyed by force to the hospital.

This case appears to us in every respect to be the exact opposite to certain states of depression that we have already learnt to recognise. Comprehension occurs quickly, ideas spring up

unhindered, though soon driven out by something new. The spirits are cheerful, actions run untrammelled and without obstacles, without even those which act as a restraint in normal life. This combination of symptoms of disease, which we frequently meet with in the same form, we designate by the name of *Mania*, or, if the individual disturbances are only slightly developed, as in the present case, by that of *Hypomania*. Our patient is, however, by no means always so considerate and jovially amiable as he is at present. For a time, especially at the beginning, he was quite confused and incoherent in his headlong talk, very irritated by his surroundings, smashed tables, chairs, and window-panes, poured his soup over his head, and behaved in very disgusting ways. At other times, by teasing and ill-treating the other patients, slandering the attendants, and grumbling and making mischief at every opportunity, he was almost unbearable.

Mania, to a certain degree, is not only a true subversion of states of circular depression, but in itself is nothing but a stage of *maniacal-depressive insanity*. Where we really meet with maniacal excitements we are then able to draw the probable inference, not only that the excitements will recur often during life, but that states of depression of the kind already described will alternate with them. To return to our patient, we can state that he has already been in the asylum seven times. He is illegitimate; his mother died of an apoplectic fit; a sister of hers was insane. The patient had always been considered eccentric, but was sober and industrious. The first attack of the malady occurred in his thirty-seventh year, and exactly resembled the present one. At that time the patient, through the press, suddenly invited the whole "nobility of the place" to a "haute-volée soirée" at a belvedere, drove up to the police-station with the pretext that he had discovered a long-wanted anarchist criminal in the person of a gendarme, and indulged in all manner of practical jokes with the officials. He was at that time supposed to be suffering from general paralysis. The later attacks began with an inclination, for the time being, to extravagant expenditure, alcoholic and sexual excess, as well as every imaginable open misdemeanour; once on admission to the hospital he had all his pockets full of worthless rings, foreign coins, and cheap jewellery, which he had bought up everywhere, as well as numerous pawn-tickets.

At the beginning the attacks lasted from two to three months, and later on about six months. The patient generally soon became composed in the hospital, and scarcely presented even slight disturbances, yet a number of experiments of dismissal turned out badly because he at once began to drink again, and then quickly became re-excited. After recovery, he was, in the intervals, a very sober man, leading an extremely retired life, and on good terms with his wife, whom he tormented and insulted in his excitement. For three months after the last dismissal but one, and for nine months after the last, he was deeply depressed, misanthropic, lay in bed a great deal, and expressed thoughts of suicide, until his mental equilibrium gradually became restored.

The expectation already expressed by us has been verified. Not only have a series of maniacal attacks occurred, but in the course of the year attacks of depression with distinctive features have also made their appearance. Most probably the future will bring a more or less regular return of one or the other of these states.* That in the course of time the duration and severity of the attacks have increased, while the intervals have become shorter and shorter, corresponds with the general experience of the disease. The future course will probably involve a gradual aggravation of the behaviour of the attacks, with fluctuations possibly.

As you may already have guessed from the noise outside, the second patient, who now storms into the room, is violently excited. She does not sit down, but walks about quickly, examines briefly what she sees, interferes unceremoniously with the students, and tries to be familiar with them. No sooner is she induced to sit down than she quickly springs up again, flings away her shoes, unties her apron, and begins to sing and dance. The next minute she stops, claps her hands, goes to the black-board, seizes the chalk, and begins to write her name, but ends with a gigantic flourish which in an instant covers the whole board. She wipes it off perfunctorily with the sponge, again hastily writes some letters of the alphabet, suddenly flings away the chalk over the heads of the audience, seizes the chair, swings it in a circle, and sits down on it with vigour, only to spring up again immediately and repeat the old game in other forms. During the whole time the patient chatters almost incessantly,

* After the setting in of tranquillity the patient was at first low-spirited for a long time, and a year later he again became maniacal.

though the purport of her rapid headlong talk is scarcely intelligible and quite disconnected. On addressing her impressively, one generally obtains a short, sensible answer, to which all kinds of disconnected sentences are, however, immediately joined. Still, one can sometimes follow up her erratic thoughts; they seem to be recollections springing up, fragments of phrases and verses, words and turns that she has heard formerly from her companions, and which she now interlaces into her stream of talk. The patient gives her age and her name, and knows that she is in a "mad-house," but gives quite arbitrary names to other people. She refuses to be led into a connected conversation, but at once digresses, jumps up, addresses one of the students, runs to the window, sings part of a song, and dances about. Her mood is extremely merry; she laughs and titters continuously between her talk, but easily becomes angry on slight provocation, and then breaks out into a torrent of the nastiest abuse, only to become tranquil a minute after with a happy laugh. In spite of her great restlessness, she is tolerably easy to manage, and obeys orders given in a friendly tone, although it must be admitted that she immediately does something else quite different. There is nothing to notice in the physical condition of the delicately-built patient, except a certain amount of anæmia, and an inflammation of the margin of the left eyelid, which she will not allow to be touched.

The extraordinary *mutability of the individual psychical processes* constitutes the characteristic feature of the condition under consideration. These processes are quickly and easily induced, but just as easily supplanted by others. Some accidental attraction at once arrests the attention, but only for the moment; every arising idea or mood, every impulse of the will, is already replaced by another before it is properly carried out. Evidently the patient is wanting in ability to prevent herself from being ruled in thought, mood, and action by the changing influences of the moment, or to work these out to their proper endings. It is in this way that the important symptom of *divertibility* arises—that is to say, increased liability to influence through outward and inward attractions. In the province of comprehension it makes itself perceptible in that it is not impressions of real importance that arrest the attention, but those which, presenting themselves directly, are chosen at haphazard, to be at once replaced, just as accidentally, by others. Thus, in the

province of the course of ideas, there arises that phenomenon which we are accustomed to call the "flight of ideas." As the idea of a goal is wanting which gives its fixed direction to healthy thought and at once arrests all side issues, the train of thought is perpetually driven out of its course, while incidental and non-essential ideas, often only awakened through habit of speech or similarity of sound, intrude everywhere. That the succession of thought is not hastened by this, as is generally taken for granted, but that the generation of new ideas often goes on very inadequately and slowly, can easily be proved by suitable experiments. But the designation "flight of ideas" is so far quite appropriate, as, in point of fact, the *duration of the individual idea* appears to be very much shortened; the ideas are "fleeting," and soon fade again before they have actually attained clearness. Hence, as a rule, there exists at the height of such disturbance a more or less pronounced incomplete consciousness.

The divertibility can be recognised in the abrupt *change of colouring* of the frame of mind, which can *change* in a moment from exuberant merriment to angry irritation, as well as to tearful despair. Lastly, in the form taken by expressions of the will, the disturbance shows as motor unrest, as *press of occupation*. There constantly spring up in the patient the most manifold impulses of the will, whose transposition into action is impeded by no checks, but is very soon crossed by new impulses.

Compare this description with the picture of the first patient, and you will easily see that there we were met by the same features that meet us here, only they were in a less aggravated form. There, too, we noticed the divertibility of the train of thought, the change of mood, and the unsteadiness of the will, and the tendency to give way unresistingly to every rising impulse. In both cases we have in reality the same picture of disease, that of *maniacal excitement*. That the differences, so striking at the first glance, are only a question of degree, becomes clear to us when we see the same state develop with growing excitement in the first patient as in the case we are now considering. But, again, our patient has from time to time presented the picture of "hypomania." Certainly that is not true of the present attack, which began pretty suddenly about two months ago, or at least is only true of the first few days. On the other hand, as we had to consider probable after our previous lecture, the patient has already gone through a whole series of

maniacal attacks, some of which have passed off wonderfully mildly.

The woman is now thirty-two years of age ; her father was very excitable ; so also was his brother, who committed suicide ; and a cousin of the father was insane. Her sister is feeble-minded. The patient's illness began in her fourteenth year with an attack of depression, which was followed two years after by a state of excitement. Two years later another attack of depression came on, with self-accusations and severe impediment of the will. This was followed by an excitement, then again by a depression, and then another excitement. From that time frequent fluctuations between slight depression and hypomaniacal states were observed, but were only recognised as morbid by the mother. The patient led, at that time, an unsettled life, published a notification of marriage, engaged in love affairs without discretion, which were not without results, but had only been considered by her friends as " full of spirits." Once she actually married while in such a state, only to separate again. Thrice the excitement was so strong that the patient had to be temporarily lodged in an asylum. In her states of depression she felt deep repentance for her behaviour during the excitement. Between the attacks long periods intervened, however, in which neither sad nor cheerful moods existed.

The whole development and course of this case is wonderfully diagnostic of maniacal-depressive insanity. The beginning at a youthful age with depressed states of mind, the later vacillation between mania and depression, the occurrence of a single severe attack after numerous slighter ones, which to the uninitiated scarcely appear as morbid, we find repeated in the same way innumerable times. We know from experience that patients of that kind are generally descended from families in which attacks of mental derangement have occurred. We may expect that our patient will have a series of different-coloured mild or severe attacks to go through in the future.*

The patient who next follows, a sea-captain, aged forty-nine, also begins to speak immediately on his entrance, and introduces himself as " The accused under chief command of Herr Professor General K." He answers the questions put to him promptly,

* After five months' duration of the attack the patient recovered, with great increase of weight, but in the eight years elapsing since then she has again been through numerous slight depressions and excitements.

and shows that he is quite clear as to time, residence, and surroundings. Very soon, however, he goes into long-winded, nineteen-to-the-dozen statements, which he suddenly brings to an end with the somewhat surprising remark, "Either I am well or ill or off my head." To the name Katherine he adds "Kathreinen-Kneipps-Malzkaffee"—"Fröhlich Pfalz, Gott erhalts" ("Happy Palace, God uphold it!")—"all will be roasted." His comprehension and memory are very good; he makes his statement with a kind of joking minuteness; he came to the hospital on Friday, July 1, at ten minutes to six o'clock. He considers himself well; there was no need to bring him here. He makes derisive remarks about the doctors and the hospital, as well as about himself; he may talk nonsense, but he is clever—more clever than the doctors, who learnt nothing in Heidelberg. When he begins to "thee and thou" us, and we express our astonishment, he breaks out into a torrent of abuse, trying always to surpass himself, and ending in shouts of laughter. His mood is exalted and insolent, his behaviour jolly and vigorous; in answering, he holds his hand to his temple as in military salute, speaks loudly and abruptly as if making a military report, but soon relapses into the easy tone of a narrator.

The patient's real condition, as you will have already seen, is likewise one of maniacal excitement. The unstable nature of his train of thought, the exalted, changing mood, the motor unrest, and especially the passion for talk, are significant enough. You would also be astonished at his press of occupation in other ways if you saw him in the ward arranging his clothes in ever new and intricate ways, manufacturing a horse, on which he rides, out of his bedding, or an anchor, the emblem of his calling; how he bawls, dances, or sings, and also occasionally destroys what he gets hold of. Our previous conjecture, based on common experience, that the present attack was certainly not the first, proves to be true. The patient came here for the first time eight years ago; since then he has been here eight times. The attacks set in each time quite suddenly—the two first after a fall into the water, the second at the burial of his daughter, the later ones without known cause. Each time he at once became very excited, and developed the most senseless delusions—that he was God, Joseph in Egypt, called his companions by the names of princes and emperors, and had to be put into a strait-waistcoat on account of his very violent resistance. The excite-

ment disappeared regularly, however, after from one to two weeks, so that he could soon be let out again.

The last five admissions took place this year. For this reason we kept the patient in the hospital this time after the disappearance of the excitement, and during that time we were able to observe the beginning of two new attacks. We have tried to cut short the last attack by at once giving the patient 12 and then 15 grammes of bromide of sodium daily on the first symptoms of excitement. In point of fact, the attack passed off much more quickly and mildly than the previous ones; perhaps we might venture to hope that the next attack will be longer in coming.*

In addition to this, we have employed those remedies which are generally found to be of use in maniacal states—first, rest in bed; but when that was found impracticable, then prolonged warm baths, which we are accustomed, under certain circumstances, to employ, with the best results, for a month at a time, for the half or even for the whole of the day. Doses of hyoscin or sulphonal are often necessary at the commencement to accustom the patients to the baths; but afterwards they stay in the comfortable warm bath, in which they also take their meals and can sometimes amuse and occupy themselves, without much resistance. As in this case, it is found that with many patients simple separation from others is an efficient calmative, the employment of which has, however, to be immediately abandoned if and so long as the patients show any inclination to uncleanness or destruction. Under kindly, quiet, non-exciting treatment, these “delirious” patients are far less troublesome than one usually imagines.

So far we have only considered the states of excitement in our patients. As they generally come under observation, morbid phenomena of that kind are commonly designated simply as “periodic mania.” Very marked *low spirits* have, however, been also observed here. Especially after the disappearance of the excitement the patient was often downcast and quiet for days, thought that he had no longer any friends left—it was misery to be in his position. There are also hours intervening in the maniacal excitement when he weeps bitterly and deplores his sad fate,

* After a very brief excitement four weeks later, also treated with bromide of sodium, the patient remained well for over five months, then had another slight relapse, and has now again been at home for more than four months.

soon to fall back into the old boisterous mood. It appears to me that not only the deep inward relationship of such apparently contradictory states, but also the clinical unity of all those cases, which one generally tries to distinguish as the different forms of simple and periodic mania and of circular insanity, are distinctly marked in these fluctuations, which are hardly ever absent, even in the most hilarious mania. The tendency to repeated relapses, as well as the usually favourable termination of a single attack, is common to all of them, even if the indications are very severe and of very long duration.

LECTURE VIII

MIXED CONDITIONS OF MANIACAL-DEPRESSIVE INSANITY

GENTLEMEN,—If the different colouring, severity, and duration of even a single attack of maniacal-depressive insanity can give an extraordinarily varied form to the pictures of disease, this wealth of form will receive yet a substantial increase through the consideration of some further cases. You see before you a man, aged fifty, of uncommonly strong build, but badly nourished, who has been in the hospital for a few weeks. On my addressing him, the patient turns to me and answers questions as to his personal circumstances slowly and with difficulty, but correctly. Sometimes one has to repeat the questions several times, as the patient does not pay attention, but looks round the room, drums on the table with his fingers, suddenly gets up or stretches out his hand to the doctor. He gives the date of his admission quite incorrectly, says he is here, “in the Castle”; it is so beautiful here. He is not ill; he is very well; he is here “to make peace with us all.” At this he breaks into a hearty laugh, so that one is not clear as to whether his remark is not intended for a joke. He knows the doctors, but not by name—“You must know that better than I.” He does sums sometimes correctly and sometimes incorrectly, usually adding: “That squares wonderfully.” As far as one can judge, his general knowledge is good, though the patient very often says: “I must first think”; and he has to be asked the same question several times, until at last, after some wrong answers, he gives the right one. His mood is cheerful and exalted; he sits there with beaming countenance, and often laughs away happily to himself, makes facetious remarks, and begins in a booming voice to sing a song. At the same time his behaviour is almost quite quiet; the movements are remarkably slow and awkward, but strong; he presses the

hand offered to him very hard, and holds it firmly. He says little, breaks off abruptly, and soon comes to a standstill, ending with a laugh. When told to write his name on the blackboard, he draws the separate letters exceedingly slowly, pressing very hard on the board, and then adds a row of other names. On going away, he says good-bye in a loud voice, placing his hand in military fashion to his head. Except for a slight oscillation on shutting the eyes, and a rupture in the left groin, the physical examination shows no disturbance worth remarking.

The condition under consideration cannot at first be classified with any of the conditions already considered. On the one hand we are met by symptoms of stupor, dimness of comprehension, forgetfulness, poverty of thought, and clumsiness of expression of the will; on the other hand, a certain divertibility shows itself, with exalted mood and slight motor unrest. Under these circumstances, the question must in the first place be raised whether we may not possibly have to deal with general paralysis, in which similar phenomena can occur. Only, the physical examination has furnished us with no good grounds for such a supposition; neither the pupils, nor the speech, nor the reflexes, nor the sensibility to pain, present the symptoms of general paralysis of the insane. Add to this that the memory also is less disturbed than at first appears, the patient is only stupefied and somewhat confused, so that, as he says himself, he must first consider even with simple answers. But in the end he usually finds the right answer, in contradistinction to the general paralytic, who does not at all notice the uncertainty and contradictions of his statements. That the condition is not to be considered as katatonic stupor is obvious. The attention of the patient is easily aroused, but he comprehends with difficulty; his mood is not indifferent or childish, but really cheerful and happy; no negativism, no stereotypism, or automatic obedience appears in his actions, but a singular mixture of constraint and excitement. Finally, the supposition of epileptic stupor, quite apart from the long duration of the condition, will also present difficulties in diagnosis, because the emotional tension and irritability which usually distinguish that state are here completely wanting.

The fact that the patient has already suffered three times from mental derangement shows us the way to the right interpretation of this particular clinical picture. The father and a brother

drowned themselves ; a sister became insane in her youth. He himself, as a child, suffered from St. Vitus' dance ; later on he was always a very quiet, reserved, temperate man, who, since his twenty-fifth year, has lived in happy wedlock, but has no children. He became ill for the first time in his thirty-first year. He was sad, thoughtful, overanxious on account of a tapeworm from which he suffered, and of which one heard now for the first time, and left off working. After a short time he became well again. The second attack set in seven years later with ideas of grandeur. The patient wanted to bring out a new machine, thought he need no longer work, was sexually very excited, and was raving mad and violent towards his wife, so that he had to be put into a strait-waistcoat. He hardly ate or slept at all. Here, in the hospital, where he was brought at once, he was very confused and apprehensive, expressed ideas of persecution, and had to be fed artificially ; then he became ill with septic pneumonia, and after four weeks was taken home again by his wife.

The third attack began four years later with melancholia, which was very soon succeeded by wild excitement. It appears that at that time the patient presented in the hospital a similar picture to what he does now—slight restlessness, with cheerful, occasionally irritable mood, and an inclination to funny pranks. Recovery followed after eight months. This time the attack began with sleeplessness, restlessness, and quickly increasing bewilderment. In the beginning the patient also appears to have had singular hallucinations ; he heard singing, shouts, saw a red cushion signifying England, a shirt that represented a heart, declared that he was the Son of God, that he would redeem the world, that he could heal all diseases, that he had transformed everything. He mistook people, called the doctor the King of Bavaria, and wanted to embrace and to kiss him, made stupid jokes, and shook hands violently, shook his sheet in other people's faces, but was easily managed, only now and then angrily excited, and always easily quieted with a cigar. Quite transitory and violent weeping and lamenting was observed.*

As you will see, the two first attacks were both depressive, the two last expansive. But while in the second attack ideas

* After sixteen months' duration of the illness, the patient, with slow increase of weight, is now making a gradual convalescence.

of grandeur stepped in along with the apprehensive bewilderment, in the present and in the preceding attacks we have a combination of cheerful mood with impediment of thought and action. Thus, in a series of favourably resulting attacks, the clinical course of the malady quite corresponds with that of *maniacal-depressive insanity*. In point of fact, we have to do here with conditions in which the otherwise different attacks of related or successively recurring symptoms of disease *mix with each other* in wonderful ways. While a cheerful frame of mind with facility of expression of the will usually accompanies maniacal-depressive insanity, and impediments of the same go along with a depressive mood, here impediments of thought and action are connected with exaltation. In this way the picture of maniacal stupor is formed, in which the patients are forgetful, intellectually dull, clumsy, taciturn, sometimes almost dumb, but occasionally showing their wanton moods in all manner of tricks, adornments, facetious remarks, and play on words.

Quite another form of these mixed conditions is shown by a farmer of fifty-three years, whom I will now show you. The patient gives coherent information as to his personal circumstances, knows where he is, knows the doctors, but is not quite clear as to time. At first he behaves quietly, but in the course of the conversation becomes more and more excited, begs urgently to be allowed to go home to his wife and children, entreats once more to be pardoned. Can they answer for keeping him always and for ever in the penitentiary? The attendants had said so; he had seen in the crossed spoons that they would shackle him; the five plates on the top of one another had meant that he would go no more to his family—four at home, and one here. He sees very well that they think him incurable, and will not eat another bite. He steals money from his children through his residence here. To-morrow he will certainly be put to death; but why has he not taken heed thereof of what was meant when the cup was broken and the vessel stood in that way on the table? He should have said, "I know not why," and demanded his clothes. In this confused way he talks on, only allowing himself to be interrupted for a short time, to immediately begin his lamentations anew. At the same time he shows active emotional excitement, wrings his hands, wishes to kneel down, groans and weeps aloud. All the same, his expression is not really sad. He looks round him with lively

and sparkling eyes, answers questions between whiles quite to the purpose, is ready to make a compact that he will not speak and will eat regularly for eight whole days if he may go home, urging half jokingly that one must give him one's hand on it, but then falls again into his former loquacity. The physical examination shows no deviation from health worth noticing.

The patient's condition, therefore, is one of *depression*. If we ask what this signifies clinically, we shall first think of *melancholia*, as general paralysis is little probable on account of the want of physical disturbances; so also is a state of circular depression, there being full freedom of expression of the will. The only symptoms, perhaps, that do not so entirely fit into the picture of melancholia are the great *loquacity* of the patient, and the ease with which one succeeds in *diverting* him, if only for a time.

If we now look back at the development of the condition, we learn that the patient comes of a healthy family, but has a son who is insane; two other children are healthy. He was in the campaign of 1870, and was a quiet, sober workman, healthy till his forty-third year, when he was treated in this hospital for "melancholia," recovering after a short time. Now for about a year he has again been ill. The illness came on gradually. The patient had groundless anxieties, worked badly, and expressed thoughts of suicide. According to his own account, he did not know in the morning whether he was to go out or whether he was to go in, whether he was to take the manure here or there. At last his wife said: "Now, do go away once and for all." Some days things went well with him, then again he thought he could never any more be happy. Why should he go on living? Often he became excited and angry; subsequently he regretted this.

On admission to the hospital six months ago, the patient was in a cheerful mood, showed strong desire for talking, and had no feelings of illness. He said that now he could decide everything easily that had been so very difficult to him before. But next day the picture changed quite suddenly. The patient became forgetful, was only able with difficulty to give the names of his children, showed great apprehension, thought he was condemned to death, slid about the ground on his knees, and refused to eat. But this condition changed quickly also, and now there developed a quite erratic alternation between exalted and

apprehensive moods, which sometimes occurred within a few hours.

The apprehensive mood, however, gradually gained the upper hand. Contradictory ideas of sin and persecution sprang up, and disappeared; at the same time the patient, in the way indicated, had the inclination to refer every occurrence in his surroundings to himself. He was especially tormented by the compulsion to add, "I know not why," to all his observations, so as to come to no harm from them. In his "delusions of reference" the great divertibility of the patient showed very distinctly, always allowing him to find out new connections, while the old would be quickly forgotten. Great motor unrest showed during the whole illness, manifesting itself in lively gesticulations, continual wandering about, and particularly in the exceedingly strong desire for talking. In that respect the enhancement of the excitement by speech itself was worthy of notice. As soon as one addressed the patient, his torrent of talk unfailingly quickly rose up, however much he had firmly resolved to remain quiet. Latterly, a more cheerful, hopeful mood has for the time stepped in again.

It is clear from the course of the attack that we have not here to do with a melancholic illness. The *distinct maniacal colouring* of the condition in the first weeks of the present attack, as well as the early appearance of the first attack of the illness, are contradictory to that throughout. At the same time, we see from the statements of the patient that *want of resolution*, which we have learnt to recognise as a symptom of circular depression, was very marked during the first time of the illness. We were also often able without difficulty to show an *impediment of thought*. The condition of the patient, therefore, in the beginning of the present attack showed symptoms already known to us as those of *circular depression*—that is to say, impediment of thought and will; later, from time to time those of *maniacal excitement*—namely, cheerful mood, with desire for talking, though without marked "flight of ideas." Then, after a time of fluctuations backwards and forwards, the sad apprehensive depression again became stronger, while the motor excitement continued. In our opinion, this picture also belongs to the embodiments of maniacal-depressive insanity, and is to be described as a *mixed condition of psycho-motor excitement with psychic depression*. The patient shows us, therefore, as we

believe, the very opposite of the picture in the preceding case, in which we could establish cheerful moods side by side with psycho-motor impediment. The grounds for these opinions are drawn chiefly from the marked, if at the same time transitory prominence of the ordinary maniacal and depressive conditions in the same patient in the same or in different attacks, alongside of the mixed states already described.

The value of this interpretation consists in the fact that we gain through it a clear opinion as to the further course of the malady. If we know that conditions of this particular kind only represent maniacal-depressive insanity, we may expect recovery from the present attack, but in all probability a relapse will occur later on in this or in another form of the periodically recurring disease. This tendency to fall each time into mixed conditions of the same nature apparently often exists in the same patient; sometimes, as in our first case, this tendency comes out only later on, yet an ordinary attack may appear, in addition, between several mixed attacks. As a rule, mixed conditions seem to represent rather more severe forms of the disease than simple attacks.*

In maniacal-depressive insanity we have already been repeatedly met by *delusions*, usually ideas of sin and persecution, more rarely ideas of grandeur. These delusions do not necessarily belong to the indications of the disease. They can be entirely wanting, but can also be so strongly developed that they give a deceptive character to the whole condition. You see here before you a student of music, aged nineteen, who has been ill for about a year. His old father is disabled in consequence of several apoplectic fits; a brother of his became insane. The highly-gifted patient, without any tangible cause, while studying music, became depressed, felt ill at ease, and lonely, made all manner of plans, which he always gave up, for changing his place of residence and his profession, for he could come to no fixed resolutions. During a visit to Munich, he felt as if people in the street had something to say to him, and as if he were talked about everywhere. He heard an offensive remark at an inn at the next table, which he answered rudely. Next day he was seized with the apprehension that his remark might be taken as *lèse majesté*. He heard that students asked

* After twenty months' duration of the attack, the patient has quite recovered, with great increase of weight.

for him at the door, and he left Munich post-haste with every precautionary measure, because he thought himself accompanied and followed on the way. Since then he overheard people in the street who threatened to shoot him, and to set fire to his house, and on that account he burned no light in his room. In the streets voices pointed out the way he ought to go so as to avoid being shot. Behind doors, windows, hedges, pursuers seemed everywhere to lurk. He also heard long conversations of not very flattering purport as to his person. In consequence of this, he withdrew altogether from society, but yet behaved in such an ordinary way that his relatives, whom he visited, did not notice his delusions. At last the many mocking calls which he heard at every turn provoked the thought of shooting himself.

After about six months he felt more free, "comfortable, enterprising, and cheerful," began to talk a lot, to compose, criticised everything, concocted great schemes, and was insubordinate to his teacher. The voices still continued, and he recognised in them the whisperings of master spirits. Hallucinations of sight now became very marked. The patient saw Beethoven's image radiant with joy at his genius; saw Goethe, whom he had abused, in a threatening attitude; masked old men and ideal female forms floated through his room. He saw lightning and glorious brilliancy of colours, which he interpreted partly as the flowing out of his great genius, partly as attestations of applause from the dead.

He regarded himself as the Messiah, preached openly against prostitution, wished to enter into an ideal connection with a female student of music, whom he sought for in strange houses, composed the "Great Song of Love," and on account of this priceless work was brought to the hospital by those who envied him, as he said.

The patient is quite collected, and gives connected information as to his personal circumstances. He is clear as to time and place, but betrays himself by judging his position falsely, inasmuch as he takes us for hypnotizers, who wish to try experiments with him. He does not look upon himself as ill; at the most as somewhat nervously overexcited. Through diplomatic questions we learn that all people know his thoughts; if he writes, the words are repeated before the door. In the creaking of boards, in the whistle of the train, he hears calls,

exhortations, orders, threats. Christ appears to him in the night, or a golden figure as the spirit of his father; coloured signs of special meaning are given through the window. In prolonged conversation the patient very quickly loses the thread, and produces finally a succession of fine phrases, which wind up unexpectedly with some facetious question. His mood is arrogant, conceited, generally condescending, occasionally transitorily irritated or apprehensive. The patient speaks much and willingly, talks aloud to himself, and marches boisterously up and down the ward, interests himself more than is desirable in his fellow-patients, seeking to cheer them and to manage them. He is very busy, too, with letter-writing and composing, but only produces fugitive, carelessly jotted down written work, with numerous marginal notes. Physically, he is well.

| The interpretation of this condition is not easy at the first glance. Of the diseases hitherto considered, dementia præcox would perhaps come first and foremost under consideration, especially certain forms of it with which we shall have to deal later on. But the exceedingly fresh, active mood of the patient, his interest in his surroundings, his sociability, and his press of occupation, are decidedly opposed to this supposition. Also, the manifold peculiarities of action and behaviour which we saw stand out so prominently in that disease are entirely wanting. On the other hand, the *divertibility* which is seen in his ever flying off at a tangent and so easily losing the thread of his narratives, in his *cheerful, arrogant frame of mind, and in his urgent need to be talking and doing*, points to the relationship of the condition with maniacal-depressive insanity. And this opinion would be justified by the joyless, irresolute manifestations, so characteristic of the first stage, passing into the comfortable but active states, so noticeable in the second stage. Hallucinations and delusions are not such essential clinical indications that they would suffice to found another diagnosis, because they could be absent in one attack of the malady and present in another. If our supposition with regard to our patient be right, we are able to predict complete recovery in the near future, though the possibility of a subsequent relapse has to be admitted.*

* The patient quite recovered, and has now been well for eight years.

LECTURE IX

KATATONIC EXCITEMENT

GENTLEMEN,—The patient I will show you to-day has almost to be carried into the room, as he walks in a straddling fashion on the outside of his feet. On coming in, he throws off his slippers, sings a hymn loudly, and then cries twice (in English), “My father, my real father !” He is eighteen years old, and a pupil of the Oberrealschul (higher grade modern-side school), tall, and rather strongly built, but with a pale complexion, on which there is very often a transient flush. The patient sits with his eyes shut, and pays no attention to his surroundings. He does not look up even when he is spoken to, but he answers, beginning in a low voice, and gradually screaming louder and louder. When asked where he is, he says, “You want to know that too ; I tell you who is being measured and is measured and shall be measured. I know all that, and could tell you, but I do not want to.” When asked his name, he screams, “What is your name ? What does he shut ? He shuts his eyes. What does he hear ? He does not understand ; he understands not. How ? Who ? Where ? When ? What does he mean ? When I tell him to look, he does not look properly. You there, just look ! What is it ? What is the matter ? Attend ; he attends not. I say, what is it, then ? Why do you give me no answer ? Are you getting impudent again ? How can you be so impudent ? I’m coming ! I’ll show you ! You don’t turn whore for me. You mustn’t be smart either ; you’re an impudent, lousy fellow, an impudent, lousy fellow, as stupid as a hog. Such an impudent, shameless, miserable, lousy fellow I’ve never met with. Is he beginning again ? You understand nothing at all—nothing at all ; nothing at all does he understand. If you follow now, he won’t follow, will not follow. Are you getting still more impudent ? Are you

getting impudent still more ? How they attend, they do attend," and so on. At the end he scolds in quite inarticulate sounds.

The patient understands perfectly, and has introduced many phrases he has heard before into his speech, without once looking up. He speaks in an affected way, now babbling like a child, now lisping and stammering, sings suddenly in the middle of what he is saying, and grimaces. He carries out orders in an extraordinary fashion, gives his hand with the fist clenched, goes to the blackboard when he is asked, but, instead of writing his name, suddenly knocks down a lamp, and throws the chalk among the audience. He makes all kinds of senseless movements, pushes the table away, crosses his arms, and turns round on his axis, chair and all, or sits balancing, with his legs crossed and his hands on his head. Catalepsy can also be made out. When he is to go away, he will not get up, has to be pushed, and calls out loudly, " Good-morning, gentlemen ; it has not pleased me." The only physical disturbance worth noticing is a considerable acceleration of the pulse to 160 beats.

At first sight, the patient might perhaps be considered maniacal, but closer consideration reveals several features inconsistent with this view. The first of these is the patient's *inaccessibility*. Although he undoubtedly understood all our questions, he has not given us a single useful piece of information. His talk was indeed connected with our questions, but it contained no answer, but only a series of disconnected sentences, having no relation whatever either to the question or to the general situation. Again, the frequent *repetition of the same phrases* could very plainly be followed in his talk, which finally degenerated into *unmeaning abuse*, without the occurrence of any external cause or the appearance of strong excitement in the patient himself. We have already learned to recognise some of the symptoms—the negativism shown in his refusal to answer, and perhaps in his keeping his eyes continually shut, and also the stereotypism. A new feature is *confused speech*, quite incoherent talk, without the patient's being irrational or showing strong excitement—a symptom which is not found in this form of mania. Maniacal patients may certainly talk in a confused way, but, at the most, it is only transitorily and in the worst states of excitement, with loss of memory, that they lose the connection so completely. Even then it is almost always possible to get some kind of relevant answer from them. And we only meet with the gross obscenity

of speech known as "coprolalia" in maniacal patients when they are very much irritated.

Other diagnostically important symptoms to be seen in our patient are *catalepsy*, sudden *impulsive actions*, *grimacing*, and *extraordinary, affected behaviour*. His remarkable attitude, his aimless movements, and the strange transformation of everyday actions, such as walking, speaking, and giving his hand, the so-called "mannerisms," are what principally distinguish his actions from the brisk and bustling activity of the maniac, which is so much more comprehensible to us who are sane. The senselessness of a maniacal patient's actions results from his great divertibility and the rapid succession of ever-fresh abortive impulses, but here the impulses themselves are quite aimless, and do not follow one another at all quickly, even though some particular impulse may be converted into action with violent suddenness. Hence, in mania actions bear the stamp of flightiness and precipitancy, but here of incomprehensibility and absurdity. There the mood is exuberant and unrestrained, while here, in spite of all external unrest, the absence of profound emotional excitement is obvious enough.

In accordance with these arguments, we will not hesitate to attribute the condition before us, not to maniacal-depressive insanity, but to *dementia præcox*, of which we find the characteristic symptoms present here—viz., good comprehension, with atrophy of the emotions and various kinds of vitiations of the will. Our patient's father was a drunkard and temporarily insane, and his mother seems also to have drunk. The patient himself was always quiet and very industrious, but of moderate mental endowment. Seven months ago, during the holidays, he suddenly began to learn in a quite senseless way, and then became confused, thought he was laughed at for being dirty, and washed himself all day long, was afraid his effects would be taken, broke the windows, seemed to hear voices, attacked his mother without any cause, became wet and dirty in his habits, and would not speak a word. In the hospital he was almost dumb, was cataleptic, gave his hand stiffly and jerkily, and almost entirely refused to eat. His expression was generally indifferent, though sometimes cheerful, and visits from his relations made no impression at all on him.

The patient understood quite well what was taking place around him, but as a rule he did not obey orders; indeed, he

sometimes did the exact opposite of what was wanted. Thus, he shut his eyes when his pupils were mentioned, covered his face with his handkerchief if you wished to see it, and drew his hand back when he ought to have stretched it out. He was often dirty, and also smeared fæces about, and rolled them into little balls—a sign diagnostic of great emotional dulness. After refusing food for a long time, he suddenly asked for Swiss cheese and then for chocolate, and devoured them both greedily. From this we can plainly see the senseless and impulsive nature of his refusal of food. Once he laid his outstretched leg on the next bed, and remained in that position when the bed was moved away. In the seventh month of the illness the patient began to be excited, after having sung occasionally during the period of dumbness. In the middle of the night he threw away his bedding, rocked rhythmically up and down on the bedstead, and screamed incessantly, “Now, I want to know where my brother is.” Since then he has been in a continual state of excitement, is destructive and abusive, and talks in a confused way. He briefly informed his relations, from whom he takes the eatables they bring when they come to see him, without talking to them much, that he was going to travel by Gibraltar to the Cameroons and by Constantinople to Bucharest.

The opinion we formed from our momentary observation of the patient, that we had to deal with a condition belonging to dementia præcox, is fully confirmed by the history of the case until now. The disease began in the usual way with apprehensive bewilderment. This was followed by unmistakable katatonic stupor, succeeded rather suddenly by the present excitement. The essential features of this form of illness, repeatedly described by us, have remained the same in the two conditions, outwardly so different.*

Our second patient to-day, a girl of twenty-nine, also shows marked excitement. When brought into the room, she lets herself slide on the ground, throws herself about, kicks with her legs, claps her hands, plucks at her hair, and makes it untidy, pulls out a whole bunch of it, makes faces, hides her face, and spits round about her. She does not generally react at all when spoken to or pricked with a needle, but resists violently if you try to take her hand or to pour water on her. She obeys no kind

* The patient was transferred to a nursing asylum a year ago, and since then has improved and been handed over to the care of his family.

of orders. She will not show her tongue, and shuts her eyes as soon as you want to examine them. But, from isolated remarks and answers quickly thrown out, it appears that she not only understands the questions, but is also pretty clear about her surroundings. But generally she calls out disconnected words, having absolutely no relation to her position, loudly and quite senselessly : “ Pupp—bups—moll—you know—temperature—fire insurance—water—Weinheim—water—creolin—God damn you !—twenty marks—say, what—water—creolin—don’t look in—twenty marks—say, what is—away with it—thank you very much—twenty marks—say what you want—God damn you !—water—not I—twenty marks—so—God damn you !—dear child—so—fire-shy—stay at home with your wife—treasures oh—sow—say what you want—thank you very much,” etc. Meanwhile she croaks and crows, then suddenly begins to sing a hymn with expression, changes to a street-song, laughs without restraint, and breaks off abruptly with loud sobs. She is slightly built and very badly nourished ; her lips are cracked and covered with scabs ; her head is flushed and her pulse very hurried. In her mouth are fresh syphilitic ulcers, which can only be imperfectly examined on account of her strong resistance.

What strikes one most in this severe state of excitement is the contrast between the *complete confusion of expression in speech* and the *slight disturbance of comprehension and sense of her position*. The patient addresses the doctor as “ Herr Doktor,” and makes pertinent remarks about what occurs around her, but does not answer the simplest questions, uttering quite disconnected words and exclamations slowly and deliberately. Here the frequent repetition of the same phrase is very marked, as is also the occasional playing with assonances and rhymes. In spite of her good comprehension, the patient does not seem to trouble at all about her surroundings, but maintains an attitude of refusal and resistance. Her mood is on the whole indifferent, only transitorily sad and more often cheerful. Her restlessness is aimless and monotonous ; they are not actions that she performs, but only movements. If we finally notice the grimacing, I think that the essential agreement of the condition before you with that of the first patient will be obvious. In both cases we find *good comprehension with little attention, confused speech, stereotypism in talk and behaviour, negativism, and aimless unrest, and silly*

actions without deep emotion. This condition, too, belongs to the sphere of *katatonia*.

Our patient's father was a drunkard, and she was but slightly endowed mentally. In her twenty-third year, as the result of a trifling injury to the head, perhaps with erysipelas, a change took place in her behaviour. She became shy, self-absorbed and very forgetful. She was apprehensive, thought there was a fire, and poured water on her bed, passed urine on her pillow, saw ghosts, and quickly fell into a state of violent excitement which seems to have been very like her present condition. Here in the hospital, where she was brought at that time, she gave no information, screamed out single disconnected words monotonously, took up extraordinary attitudes, and sank in a short time into a complete stupor, from which she awoke in a few weeks, unable to give any detailed account of her condition. After her discharge, she gradually began to lead an irregular and indiscreet life, in opposition to her previous conduct. She became syphilitic, and bore three illegitimate children, the last of which she suffocated in her bed a little after its birth. For this she was condemned, in consideration of her limited intellect, to two years and three months' imprisonment. This experience has made very little impression on her mind ; she only smiled in an imbecile way if you spoke to her about it.

After her condemnation, she still had to go through a course of mercurial treatment, but in eight weeks her mind suddenly gave way, and thus she came into our hospital again. She was then in a state of senseless excitement, scratched and struck herself, tore out her hair, threw herself ruthlessly on the ground, let herself fall out of bed, and had numerous bruises on her arms and legs. On washing out her stomach, a putrid fluid was discharged, while purulent slime and bloody mucous crusts came from her mouth. The patient occasionally gave sensible answers, but generally talked incomprehensibly and screamed continually for water, only to spill it as soon as it was brought to her. Her whole state was very much like what it is now, only far worse. By frequently washing out her stomach, by artificial feeding, and by the evacuation of the overfilled bowels, we succeeded with great trouble in improving her state of nutrition, which was much impaired. After only a few days the restlessness improved, and the patient, who appeared quite collected, took food again in abundance. Now, four weeks after her admission, there

has been a return of the excitement for the last few days. We will try to combat it, as before, by feeding her as well as possible, and, if necessary, by artificial means, and by prolonged baths, which generally act extremely well in such severe cases. Probably we shall soon succeed in tranquillizing her again.

It seems very doubtful, however, if our patient's condition will ever be that of a sane person. In the first place, she was only slightly endowed from her youth up, but still, she has had some scanty education at school, as we were able to make out during the period of tranquillity. She also remembers her former visit to the hospital, and the doctors who were there at that time. This development of dementia præcox on a foundation of congenital or early-acquired weakness of intellect is not altogether unusual, though we also see specially good scholars attacked by the disease. Our patient's prospects are rendered still darker by the fact that a *profound change in her whole character* seems to have followed her first illness. I have already told you that the improvement after the subsidence of severe katatonic disturbances is not generally a real cure. Even if we cannot at present completely exclude the possibility of complete and lasting recovery, experience shows that some remains or other of the illness can usually be seen by an expert observer. These, and the tendency to relapses, prove that the disease has produced a certain degree of infirmity. Loss of moral and emotional feeling, absence of any understanding of the past illness, want of freedom in action and behaviour, signs of catalepsy, affectation, negativistic obstinacy, and a reserved and inaccessible character are, as in our present case, the most important of its traces. The morbid nature of the change is often unperceived by those about the patient, but becomes clear afterwards when relapses occur. In the present case it would seem as if the patient's confinement, her trial and condemnation, and the mercurial treatment had worked together to produce a fresh outbreak of the disease. The result, even under the most favourable conditions, will be a high degree of feeble-mindedness.*

The factory-girl, aged thirty-two, who now comes into the room with an awkward and very deep curtsey, presents an entirely different aspect from the last patient. She declines to sit down

* The patient has now been in a nursing asylum for nearly five years. She is physically well, and remembers her illness and occupies herself, but has remained destitute of ideas, weak in judgment, and emotionally dull.

to talk to us, thanks us for the "honour," goes up and down with affected, waddling steps, and begins to declaim and recite verses, and to interpolate witty remarks in our discussion of her condition. Her name is what the parson christened her, and she is as old as her little finger. She knows her position, the date, where she is, and the people around her, and can give the most exact information about her past experiences. She does not consider herself insane. She often interweaves her disconnected talk with scraps of bad French and senselessly altered quotations, such as, "Ingratitude is the world's praise," "Many hands, many minds." She rides single phrases to death in uninterrupted repetition—"Devil's dung on the soul's foot, the soul's foot in devil's dung." She often uses very strange and almost incomprehensible compound words and phrases.

Her mood is silly, cheerful, sometimes erotic, and then again irritable. She takes pleasure in the most indecent sexual allusions, and occasionally in outbursts of the wildest abuse. She does not obey orders, and refuses to give her hand on the ground that they are *her* hands. She will not write, and pertly refuses to do anything she is asked. She chatters continually, and will not let anyone get in a word. Her speech is extremely laboured. She cuts the separate syllables sharply asunder, accentuates the final syllables sharply, pronounces *g* like *k*, and *d* like *t*, talks like a child, in imperfectly formed sentences, distorts words, inserts senseless expletives and strangely-formed words, and constantly changes the subject. All her movements and gestures are clumsy, angular, and stiff, and are very lavishly employed, but monotonous; she hops about, bends down, claps her hands, and makes faces. She has ornamented her clothes in an extraordinary way with embroidery and crochet-work of staringly bright wool. From her talk it appears that she looks on herself as the mistress of the house; she pays the nurses and appoints them, and will get herself better doctors. Moreover, she complains of being exposed to sexual assaults, and says that her lungs, heart, and liver have been taken out. She says she is engaged to a doctor in the asylum where she was before. She tells her name with the prefix "von." She also seems to have heard voices, but will only make evasive statements about them.

If we exclude the not very marked delusions and also the probable hallucinations, of which we cannot yet be quite certain, the morbid symptoms in this case lie principally in the department

of *action*. In the patient's inaccessibility to any advances we recognise *negativism*, in her speech and behaviour *stereotypism*, and, more especially, very strongly-developed *mannerisms*. On the other hand, her comprehension and memory are excellent. In the sphere of the emotions exaggerated self-esteem is to be noticed, with strong sexual excitement and great irritability. There is also a complete *dulling of the sense of shame*, which appears in the patient's coprolalia. Sympathy for others seems almost extinguished. The patient has become violent in the roughest way to those about her on numerous occasions and without any recognisable cause, and she has shown herself to be cunning, vindictive, and extremely ruthless. She does not worry about her future. She certainly asks for her discharge now and then, as she does not want to be shut up always, but she has absolutely no plans, and lives simply for the day. This, besides showing a certain lack of judgment, may prove the absence of those emotions which impel the sane to picture the future to themselves in hope and fear.

It is evident that here again we have one of the forms in which *katatonia* makes its appearance. The patient is said to belong to a healthy family, and only has a deaf and dumb cousin, but was considered very selfish and obstinate herself from her youth up. She was first a servant girl and then a factory hand, had two illegitimate children, and then aborted once. About six months later, two years ago now, she saw gray men and women's heads, and heard knocking and voices which called abusive words to her. Later on she wrote a love-letter to the proprietor of her factory, and was dismissed and picked up helpless on the street. When taken to an asylum, she was quiet and collected at first, but soon had brief attacks of the most violent excitement, during which she undressed herself completely, hit out round her in a senseless way, and bit. Later on she showed a repellent, discontented disposition and a tendency to stereotypism and impulsive actions. When she was brought here a year and a quarter ago she presented the same picture as now in all essential features. It should perhaps be added that she showed echopraxis, followed the same track—a figure of eight, for instance—for hours in the garden, and was very refractory. For a long time she had to be kept quite alone in the garden and in her room, because, though quite collected and free from great emotional excitement, she was very dangerous to the other patients. In

the course of the last few months she has gradually become rather more manageable.

We may hope that she will make some farther advance towards tranquillity. Yet there can be no doubt that the deep disturbances of the judgment, the emotions, and the will are no longer capable of complete reversal. In spite of her good comprehension and memory, the patient is feeble-minded in a very high degree, and will always remain so.*

* She has now been in a nursing asylum for ten months, rather quieter, but in other respects unchanged.

LECTURE X

MEGALOMANIA IN GENERAL PARALYSIS

GENTLEMEN,—You have before you to-day a merchant, aged forty-three, who sits down with a polite greeting, and answers questions fluently and easily. He is clear about his surroundings and position, and knows the doctors, but makes rather vague remarks about the length of his residence here, and cannot give the year of his marriage or the present date correctly, “because he has not had a calendar for a long time.” He says that he was driven crazy by overstrain and badgering, but is quite sane again now, only still rather nervous. His power of work has been very much increased while he has been at the hospital by the good care taken of him, so that he can do a great deal of work, and has the most brilliant prospects. He thinks of starting a large paper manufactory on his discharge, which will be very soon. A friend is giving him the capital necessary. Besides this, Krupp, whom his friend knows very well, has placed a property near Metz at his disposal, where he will go in for gardening on a large scale. The neighbourhood is also very well suited for vineyards. He will have fourteen horses for the farming business, and set up a brisk trade in timber as well, which cannot fail to bring him in a tidy little sum. To the objection that all these affairs will not go off so smoothly, and that they will require large means, he answers confidently that he will overcome the difficulties by his great power of work, and that, with his magnificent prospects, he cannot be short of money. He also hints that the Emperor is interested in him, and will allow him to resume the title his grandfather abandoned for want of means; indeed, he might really use it now. The patient makes all these statements in a quiet, practical tone, behaving in a perfectly natural way.

Even without my telling you that, as a result of his illness,

this man's affairs are in anything but a good position, and that he has absolutely no prospect of making anything in the way he proposes, you would have guessed that his is a case of morbid hopes or *ideas of grandeur*. This is confirmed by the matter-of-course way in which he sets aside the difficulties involved in his projects, and his readiness to extend his plans still further at the least incitement. If you suggest that poultry-breeding might be profitable, he says at once that of course he will keep turkeys, guinea-fowl, peacocks, and pigeons, fatten geese, and set up a pheasantry. This characteristic form of megalomania, the confident throwing out of ever-growing and easily-influenced plans, without any consideration of the difficulties in the way, is in high degree diagnostic of *general paralysis*. The same kind of thing is certainly observed in maniacal states, but there it is associated with symptoms of excitement, such as flight of ideas, loquacity, and a mood delighting in action, while our present patient, with his supposedly brilliant prospects, seems remarkably quiet and indifferent. We will now remember his uncertainty about dates, besides subjecting him to a searching physical examination.

The patient is a tall, lank, strongly-built and fairly well-nourished man. His features are rather languid and tired. The left labio-nasal fold is rather less marked than the right. Both pupils are very small, and show no contraction on exposure to light, while the reaction on looking at a near object is maintained. The tongue shows no tremor; the outspread fingers tremble a little; the knee-jerks are exaggerated. In pronouncing difficult words like "Elektricität" (electricity) or "dritte reitende Artillerie-brigade" (Third Brigade of Horse Artillery), the patient begins to stutter, and brings out the syllables in the wrong order. This form of disturbance of speech, called "*syllable stumbling*," and indistinct pronunciation of the individual letters, are among the commonest signs of general paralysis. In conjunction with the reflex sluggishness of the pupils, the uncertainty about dates, and the characteristic megalomania, they leave no doubt that the patient is really suffering from general paralysis of the insane.

As to the development of the disease, we know that the patient belongs to a healthy family, but has led a very restless life, and suffered from syphilis. His illness began about two years ago. He became absent-minded and forgetful, to such an extent at

last that he was dismissed by the firm for whom he had worked. Then, a year ago, he became excited, made extensive purchases and plans, weeping now and then in the deepest despair, so that he had to be taken into the hospital. On admission, he felt full of energy, "mentally and physically as well as ever," and intended to write verses here, where he was particularly comfortable. He could write better than Goethe, Schiller, and Heine. The most fabulous megalomania quickly developed. He proposed to invent an enormous number of new machines, rebuild the hospital, build a cathedral higher than that at Cologne, and put a glass case over the asylum. He was a genius, spoke all the languages in the world, would cast a church of cast-steel, get us the highest orders of merit from the Emperor, find a means of taming the madmen, and present the asylum library with 1,000 volumes, principally philosophical works. He had quite godly thoughts. These ideas of grandeur changed continually, arising in a moment, to be quickly replaced by others. The patient showed great divertibility, an overhappy mood, easily passing into a tearful one, and great motor unrest. He talked, wrote, or calculated without ceasing, and ordered off-hand everything he saw in the advertisement-sheets of the newspapers—provisions, villas, clothes, furniture, etc. Soon he was Count and Lieutenant-General, presented the Emperor with a whole regiment of field artillery, and offered to move the asylum on to a mountain. Sometimes he was irritable, quarrelled with the other patients, and was destructive, but he always grew tranquil again. There was often retention or involuntary passing of urine.

Two months after his admission the patient began to complain of hallucinations of hearing. Friends stood outside and talked about him, or he heard his children being violated. The news of large presents of money was also communicated to him in this way. Warders seized his sexual parts at night, and there were poison and black-lead in the food. He became gradually and continuously quieter, and fell into the state of mental weakness in which you see him now, devoid of judgment, emotionally dull, and feeble of will. His weight, which fell very much at first, has gradually increased by no less than 20 kilogrammes.*

* When the paralysis had lasted three and a half years, the patient died, quite demented, of miliary tuberculosis.

The course described here is very common in general paralysis. After the introductory symptom of loss of mental strength, and especially of memory, there follows a time of excitement, with a cheerful mood, and more or less pronounced megalomania; then the excitement subsides, but the feeble-mindedness remains. This form is usually called *classical general paralysis of the insane*, because it was the first which was accurately known to alienists. When at its height, the disease may present a great resemblance to maniacal states, but the physical examination and proof of the defective memory will save us from confusing it with them. So also will the senseless nature of the plans and the possibility of influencing them, and the feebleness and yielding character of the manifestations of the will, which are all greater in general paralysis.

We have already seen, in our discussion of the depressive forms of the disease, that megalomania is not a necessary accompaniment of general paralysis. The comparison of such cases with that of our present patient shows at once that neither the purport of the delusions, nor the hallucinations, nor the bias of the mood are essential to the diagnosis. We often see ideas of grandeur and insignificance and cheerful and apprehensive moods mingled with or directly succeeding one another in this disease, just as we do in maniacal-depressive insanity and dementia præcox. We have already met with indications of this behaviour in some of the cases discussed.

The telegraph official, aged thirty-four, whom I will now place before you, affords a very instructive example of this. He is slender and prematurely gray, pale-looking, but fairly well nourished. He comes in with a beaming expression, greets us politely, describes his personal circumstances, knows where he is, and knows the doctors, but becomes uncertain and involves himself in contradictions as soon as he is asked for more detailed statements about the length of his stay here and important events in his life, and for the dates of his marriage, appointment, and dismissal. He is very fond of talking, ingenuously relates tender incidents of his married life, complains of his father-in-law, brags in all kinds of obvious ways about the part he took in the campaign of 1870-71, and plumes himself on the excellence of his official work in a childishly simple way. He had been recommended for the Iron Cross of the first and second classes, but the sergeant burned the list of recommendations in a fit of

officialdom. However, he would appeal to the Emperor now, and get permission to wear the decorations from him. The old Emperor William had granted him 6,000 marks to visit a watering-place. He would write a book about the sergeant, which would make a great sensation. He was not ill at all, and could enter on his duties any day. He had a brilliant career before him, and at the most would only go away for a few weeks for a change of air. Then in a few years he would be Post-Master. He pays no attention to objections, but sets them aside with a phrase or two, or replaces his assertions with others not less improbable. His knowledge is quite good, and he can give a fairly complete, though rather confused, account of his duties. He becomes very uncertain in doing sums with high figures.

His mood is contented, confident, and joyously hopeful. Even a reference to his present unfortunate position, far from his family, without a place and without means, does not affect him much. He has recovered now, and has such excellent testimonials that he can never be at a loss. He has written out some of these testimonials from memory, and lays them before us. We see that apparently there are real papers corresponding to these records, but there are exaggerated praises and embellishments in them which cannot possibly have occurred in the originals. For instance, it is stated that he brought about the fall of "the greatest criminal in Hamburg." He also shows us an address to the Prussian Minister of War, in which he begs him to be kind enough to support his application to the Emperor for the grant of a decoration and pecuniary aid. In this document he gives references to his former officers, whose visiting-cards he has, to prove that he has "been through it all." In these papers we notice that the patient often leaves out some letters and words, writing, *e.g.*, "samlich" for "samtlich," doubles others, and strays from the proper construction of the sentences. Thus, he remarks that he "was present at the following battles and engagements," but does not name them, and goes on, "Am also for the Iron 1 as also 2d class, as well as for the Mecklenburg Cross of Merit, the which I took part in the campaign 70/71, and were present at the entrance into Berlin." The writing itself is good, but shows many little irregularities and bends.

In spite of his plans for the future, the patient is not very anxious for his release, lets himself be diverted and consoled

very easily, and agrees at once to stay here for some time longer. He does not worry at all about the position of his wife, who has gone back to her parents, or about the long time he has lost, or his discharge from the service, and receives the assurance that he is still insane with an incredulous smile, but without excitement.

The result so far obtained from the examination—the great weakness of judgment, memory, emotional feeling, and volition, the ideas of grandeur, and the deterioration of the writing—will already have convinced you that the case now before us, resembling the last in so many respects, belongs to the province of *general paralysis*. A searching physical examination shows that the labio-nasal folds are effaced, and the tongue trembles strongly when put out. Both pupils are inactive to light, and the knee-jerks are much exaggerated. In rapid speech, especially when repeating difficult words, the separate letters are indistinctly pronounced, and sometimes omitted, changed, or transposed. “Slurring,” lispng speech and syllable-stumbling may also be noticed.

The *development* of this condition is very remarkable. Nothing certain is known about the patient's family, and it is impossible to tell if he has suffered from syphilis, but his marriage was childless, and, indeed, he declares that he never had sexual intercourse with his wife. According to his own account, he committed a theft in his youth, and served a term of two years' imprisonment. After this he took part in the campaign, entered the telegraph service, and seems to have been a worthy official. Eight years ago he fell ill for the first time of *apprehensive depression*. He thought that his youthful offence was known, that it was alluded to in the newspapers, that his colleagues would have no more to do with him, and that the authorities would dismiss him. As the result of this, he thought his life was ruined, became secluded, left his home, and only came back two days later, not knowing where he had been in the interval. At that time he spent four months in the hospital here, and was discharged rather better. No physical symptoms could be discovered. His condition improved still further after his discharge, and he married and was promoted in the service, although he had often behaved strangely during the first few years.

Two years ago—that is, after an interval of nearly five years

—he was brought to the hospital a second time, having developed gradually increasing apprehensive depression, with refusal of food, and great loss of physical health. The patient now presented the picture of *stupor*. He hardly spoke at all, and lay in bed with a gloomy, surly expression, taking no interest in anything, and refusing food with great obstinacy. It gradually became evident that he was suffering from hallucinations of hearing of disagreeable purport, and felt himself to be influenced by “transferences.” There was dung in the bread and poison in the soup, and the meat was rotten, and stank like the plague. The patient’s mood was very discontented and ill-humoured, and he seemed to be annoyed whenever he was spoken to. He was not at all clear about his position, and made no attempt to get a correct idea of his surroundings or of relations of time. The condition lasted thus, with slight fluctuations, for fully eighteen months, until one day the pupils, which had been very frequently examined, were found to be *inactive to light*. They remained so from that time onwards, and inequality of the pupils also appeared from time to time. Retention of urine, and later on weakness of the bladder as well, were observed. The patient gradually became more accessible, and now developed the idea that he had grown all crumpled up, and was 9 inches shorter. He complained bitterly of the whole treatment, and especially of the artificial feeding, so long necessary, which he said had made him ill. But he now began to eat of his own accord, gained 28 kilogrammes in all—20 in seven months—and grew more and more into the state of happy feeble-mindedness in which you see him now.

I think we can hardly doubt that the first illness eight years ago was the beginning of the paralysis. This view is supported by the circumstance that the condition at that time bore a very great resemblance to the subsequent attacks, and that the patient was peculiar for some time in the interval. In spite of that, he married and performed his difficult official duties for nearly five years. It is well known that *pauses in the disease*, lasting for years, take place in general paralysis, with subsidence of all the symptoms, yet cases like this are somewhat rare exceptions. It is also very important that no physical signs of paralysis could be found, not only in the first attack, but also for a long time in the second. We may therefore sometimes have to reckon with the possibility of general paralysis, even

where hardly any of the recognised physical symptoms can be found at first. But it will hardly be possible in such cases to decide that general paralysis exists, and we will find it very difficult to distinguish it from circular and katatonic stupor. Perhaps the dulness and want of marked emotion may sometimes put us on the right track in the first case, and the absence of the diagnostic disturbances of volition—negativism, stereotypism, and mannerisms—may guide us in the second. The continuous confusion and incapacity to get a correct idea of time and things might also be made use of.*

The duration of general paralysis, which varies within very wide limits, will, of course, be greatly prolonged by a number of remissions. On the other hand, there are cases in which the whole course of the illness is very rapid and stormy. I will now show you a tradesman, aged forty-three, who entered the hospital two months ago. He has complained of headaches for a year, and for four or five months he has fallen off in his work. His eldest brother died of an illness like his own, and he has always drunk a great deal himself. Nothing is known of specific infection. The patient became irritable and loquacious a few weeks before his admission, and made great plans. He suddenly bought a bathing establishment for 35,000 marks, although he had no means, ordered 14,000 marks' worth of champagne, and 16,000 marks' worth of white wine, to set up a hotel, bought a dagger and some arsenic, and had an attack in which he became quite rigid.

You can see that the patient is now very much excited. He has torn up part of his clothes, and decorated himself with the shreds in an extraordinary way. He has tied strips round his legs, taken off his jacket, and turned his trousers up high. He chatters unceasingly, and develops the most fabulous ideas of grandeur. He says he will have himself made bigger, so as to weigh 30 stone, is having steel bars put in his arms, wears iron orders weighing 2 cwt., is making himself fifty negresses with an iron machine, will always remain forty-two years old, and is marrying a countess of sixteen, with a fortune of 600 million marks, who has been awarded the rose of virtue by the Pope. He has horses which do not eat any oats, and 100 golden castles, with swans and whales of the stuff the bullet-proof breastplates

* Our patient died in another asylum, after the disease had lasted nearly eleven years.

are made of. He has made great discoveries, has built the Emperor a castle for 100 million marks, is on the most intimate terms with him, has been given 124 decorations by the Grand Duke, and is making every poor devil a present of half a million marks. Besides all this, there are ideas of persecution. They have wanted to murder him five times, and suck two tubs full of blood from his posteriors every night. For this he will behead the warders, or have them torn to pieces by dogs. He is building himself a steam guillotine.

In spite of his continual screaming, chattering, and singing, it is possible to get a few short answers from the patient. He gives his name, knows he is in the "sick-house for madmen," knows the doctors, and can tell the date approximately, but always keeps straying from the subject to return to his fantastic ideas. His mood is exalted and blissful, yet he suddenly begins to weep bitterly when he speaks of the imaginary death of his wife, but immediately goes on to say that he is marrying a baron's daughter with money now. He is irritable at times, and gets into a rage, but is soon quieted by friendly persuasion, and by our entering into his delusions to divert his mind. His speech is hurried and indistinct, with an ill-defined, slurring articulation and syllable-stumbling. His writing shows transposition and doubling of letters, and the characters themselves are unsteady. His features are flabby, and when he speaks there are active sympathetic movements of the face. His tongue trembles strongly, and is put out by jerks. The left pupil is considerably larger than the right, and both are inactive to light. His head is flushed, and his pulse frequent. The skin and knee reflexes are considerably exaggerated. The patient's susceptibility to pain seems to be reduced when his attention is diverted, and, strongly as he is built, his weight is gradually diminishing.

You will see at once that the patient has general paralysis from the result of the physical examination, the extraordinarily disconnected delusions, the feeble mutability of mood, and the ease with which the will is overpowered. Here we see that type of the disease which is usually called the *agitated form*, from the predominance of strong excitement. This variety of the disease generally develops rather quickly, as it has done in the case before us. There may be remissions in its further course, or the excitement may increase continually, so that the

patients succumb in a short time to exhaustion, either in a paralytic attack, or as the result of some other accident. This is called "galloping paralysis." This last possibility is not out of the question in the case before us, for the patient is often quite senselessly excited, injures and dirties himself, and puts the greatest difficulties in the way of treatment. Our task will consist essentially in taking care that he is properly fed, and in the employment of prolonged baths. The administration of hypnotics—sulphonal, trional, or hyoscin—cannot quite be dispensed with, on account of the patient's extraordinary restlessness. It remains to be seen if we shall succeed in piloting him through his present danger by the means we are employing.*

* The patient lost weight continually, and succumbed to collapse when he had been three months in the hospital.

LECTURE XI

ALCOHOLIC MENTAL DISTURBANCES

GENTLEMEN,—The innkeeper, aged thirty-four, whom I am bringing before you to-day was admitted to the hospital only an hour ago. He understands the questions put to him, but cannot quite hear some of them, and gives a rather absent-minded impression. He states his name and age correctly. As to his previous life, we learn by broken scraps that he attended school up to the lower first class (the first class being the highest), and afterwards led an adventurous life for some time in America, after having failed to get into the railway service at home through colour-blindness. After two years he came home for some time, but then returned to America. There he seems to have made his living chiefly as a pianist, but he also had all kinds of other occupations, and was finally employed in a hotel. Eight years ago he came back to Germany, and began first one thing and then another, and for the last six months has kept a hotel. He says he has been in the asylum once already, and has had delirium from drinking. Yet he does not know the doctors, calls them by the names of his acquaintances, and thinks he has been here for two or three days. It must be the Crown Hotel, or, rather, the "mad hospital." He does not know the date exactly.

Even during this conversation, in which the patient has made perfectly connected statements, you will have been struck by his restlessness. He moves about in his chair, looks round him a great deal, starts slightly several times, and keeps on playing with his hands. Suddenly he gets up, and begs to be allowed to play on the piano for a little at once. He sits down again immediately, on persuasion, but then wants to go away "to tell them something else that he has forgotten." He gradually gets more

and more excited, saying that his fate is sealed ; he must leave the world now ; they might telegraph to his wife that her husband is lying at the point of death. We learn, by questioning him, that he is going to be executed by electricity, and also that he will be shot. "The picture is not clearly painted," he says ; "every moment someone stands now here, now there, waiting for me with a revolver. When I open my eyes, they vanish." He says that a stinking fluid has been injected into his head and toes, which causes the pictures one takes for reality ; that is the work of an international society, which makes away with those "who fell into misfortune innocently through false steps." With this he looks eagerly at the window, where he sees houses and trees vanishing and reappearing. With slight pressure on his eyes, he sees first sparks, then a hare, a picture, a head, a washstand-set, a half-moon, and a human head, first dully and then in colours. If you show him a speck on the floor, he tries to pick it up, saying that it is a piece of money. If you shut his hand and ask him what you have given him, he keeps his fingers carefully closed, and guesses that it is a lead-pencil or a piece of indiarubber. The patient's mood is half apprehensive and half amused. His head is much flushed, and his pulse is small, weak, and rather hurried. His face is bloated, and his eyes are watery. His breath smells strongly of alcohol and acetone. His tongue is thickly furred, and trembles when he puts it out, and his outspread fingers show strong, jerky tremors. The knee-reflexes are somewhat exaggerated. No irregularity can be seen in the pupils. There is a rather important enlargement of the heart.

The picture of disease before us is distinguished by some features which do not occur in the same way in any other condition, and therefore make a definite diagnosis possible at once. The first of these is the *want of clearness in the ideas of time and place, with almost complete collectedness*. You may converse with the patient for a long time without noticing his mental disturbance, till you suddenly find that he has no idea where he is, and completely mistakes everyone present. Paralytics may indeed, under some circumstances, present a similar picture, but in those cases the recollection of past events is always considerably disturbed, while here it is perfectly trustworthy for all occurrences up to the last few days or even hours. The mingling of true and false perceptions in our patient is, if possible, even more character-

istic. Without noticing any contradiction, he sits now as a tippler in the Crown and now as a patient in the hospital, now with innkeepers and customers, and now with doctors around him. This incapacity to correct such obvious inconsistencies, while fairly collected and with good control over the memory, reminds us of many experiences in dreams, and shows that we have to deal with a *delirious condition*, a dreamlike obscuration of consciousness. If to this we add the vivid hallucinations of sight, the restlessness, the strong tremors, and the smell of alcohol, we have all the essential features of the clinical condition called *delirium tremens*. The mood, too, is strangely complex. It almost seems as if, side by side with the apprehension of threatening danger, there were a certain appreciation of the senseless nature of the delusions and of the ludicrous contradiction between fact and fancy. But a humorous perception of their condition is characteristic of drunkards in general.

Delirium tremens is a very short-lived disease, generally running its course in four or five days, and only develops on the soil of chronic alcoholism. Our patient has drunk hard since he was thirteen years old. His father was easily excitable, and an uncle was formerly a very hard drinker. One of his aunts kept an inn, from which he had to take out the beer as a boy, and so he was treated everywhere. At home he got a quarter of a litre of wine every day, and also drank a great deal in a school-club to which he belonged. He learned to take spirits in America. At last, by his own account, he drank 6 or 7 litres of wine a day and five or six stomachic bitters, while he took hardly any food but soup. Some weeks ago he had occasional hallucinations of sight—mice, rats, beetles, and rabbits. He mistook people at times, and came into his inn in his shirt. His condition has grown worse during the last few days.

The further course of the case will presumably shape itself so that all the disturbances will disappear rather suddenly in a few days.* The return of mental clearness generally takes place after a long sleep, exactly recalling the awakening from a feverish dream, while, at the height of the disease, sleep is usually almost entirely absent. When the delirium has ceased, the patients are of course still far from well, and the symptoms of alcoholism

* The delirium ran its course in six days. Eighteen months later the patient returned to us of his own accord during a fit of drunkenness, as he feared another outbreak of delirium tremens.

continue, although their presence may hardly be noticed in the shelter of the hospital. Very occasionally a peculiar mental infirmity, with hallucinations and strong delusions, follows delirium tremens. From 3 to 5 per cent. of the patients, or under unfavourable circumstances even more, quickly succumb to inflammation of the lungs, heart weakness, accidental injuries, or suicide.

Our patient, as he says himself, has been in the hospital once already, and that only four months ago. The clinical picture he presented then was exactly the same as now, only there were glycosuria and severe pain on pressure on the great nerve-trunks. On that occasion also there had been isolated hallucinations for some time before : the patient saw rats and mice, gave expression to ideas of jealousy, and threatened his wife and servant-girl with a revolver. When he was admitted, he had brought a bottle of strong wine with him, at which he took a last hearty pull. Next morning he had three epileptoid seizures, with convulsions. The delirium lasted about six days, after which he was quite clear, and gave us a sketch of his experiences during the attack.

He thought it was "Papus Day," when the devil goes about. He ran his head suddenly against a marble pillar, and tried to turn away, but sideways across the street a huge slab of marble set itself opposite to him, and the same thing happened when he tried to turn back. The two slabs fell together threateningly against him. Two desperate figures brought him to the Oxen Church on a wheelbarrow, and laid him on the bier. A master of the ceremonies set hot rays against his mouth with red-hot shears, so that his life-strength gradually dwindled. At his request, he was given a glass of red wine, but Satan himself dashed a second glass out of his hand with a sneering smile. He then bade the bystanders farewell with all kinds of pious exhortations, and went away. At the same time, the corpses of the patient's four daughters were laid by his side. He was now to be punished in the next world with that in which he had sinned on earth. He continually felt an extraordinary thirst, but as often as he reached out for a jug or a glass, it vanished out of his hand.

Next morning he lay alive again on the bier in the Oxen Church, and the children with him, in the form of white hares. There was a procession of the Catholics, with which he was obliged to co-operate. While litanies were being sung in the next room

at the Crown, he had to stamp on an immense number of gold spectacles lying on the ground, and there was a report each time. Those who took part in the procession then debated whether he should merely be hewn in two or struck really dead. The hostess of the Crown was for the first of these alternatives, on condition that he should live there permanently. He wanted to go away, however, because he got no beer. Then a sergeant-major came to release him. The landlord of the Crown shot at the sergeant-major with a revolver, and was arrested and taken off to prison.

Another evening the whole Protestant community was in the church. A student's corpse was the central feature of the ceremony, fifty of the members giving a kind of circus performance before the service. Next the patient noticed that his wife retired into a pew with a relation. Then he hid behind the pulpit with a Sister of Mercy, and saw how they desecrated the sacred building. Then he was locked into the church, but a glazier cut a hole in the window, so that beer at least could be handed in. When he dressed, he found that all the sleeves and openings in his clothes were blocked and sewn up and the pockets ripped open. Then, in his bath, he saw that he was surrounded by seven hares, swimming under water and splashing and nibbling him continually.

This brief abstract of the patient's description of his delirium gives us a clear idea of the dreamlike condition in which particular real perceptions, like his knocking his head, are mingled with numerous very vivid false perceptions, especially of sight and hearing. As in a dream, a whole series of the most strange and remarkable events take place, with occasional sudden changes of scene. Patients often find themselves at their work in these visions, and we may observe this "business delirium" in the present case—the demand for the quenching of the thirst for alcohol being prominent all through.

In our second patient also, a merchant, aged forty-eight, you will notice hardly anything remarkable at first. He gives a perfectly connected account of his life, and says that he served in the war and got a bullet in his foot. He can tell the date, knows where he is, and says that he is excited because people have climbed in at his window at night. Suddenly he cries, "That is aunt shrieking," and declares that he sees a child standing over there. Then he looks out of the window and says, "I believe it is she! Or not? Yes, it is she!" He will not admit

that these are hallucinations. With pressure on his closed eyes, he sees mist, then a red streak, and then a bank, on which two girls and an old lady are sitting; they hold up their hands. Near them is a bear, and over that an ass. "That is a gendarme—stop; another gendarme, then a policeman." These were pictures, such as there are in children's spelling-books, and he thought he could see them through a chink between his fingers.

He tells about his adventures with the nocturnal intruders in a rather confused way, and always takes it for granted that we know about them already. But gradually we learn that after a rather long spell of hard work, during which he had drunk a great deal regularly, he drank very hard for a few days, eating very little and getting no rest. Five days ago, when he went to bed after a heavy bout, he noticed little snakes and scorpions running about on the walls, and frogs and rats on the floor. He kept quiet next day. In the evening two men came in through the window, and called to him, "Good-evening, Charley!" They did not answer when he spoke to them, and when he hit at them with a stick he only struck the air. Later on they knocked at the window again, and threatened him; then a whizzing began in his head, and he fainted. Next evening two gentlemen, two ladies, and two children came into his bedroom, sat down, and whispered together. One of the gentlemen came to his bed, and demanded his signature to a bill of exchange for 1,000 marks. This time also the figure did not wait to be seized, but vanished immediately; the door was banged, and a voice cried, "Good-bye till to-morrow." The ladies and children, however, remained lying on the sofa, and then came to the bed and apologized.

After working actively next day, in the afternoon the patient saw two men standing in the passage of the house, talking to each other. Three fellows grinned through the window, and his penholder bent and curtseyed. In his apprehension, he went and tossed off two or three glasses of wine in a neighbouring public-house. When he came back, he still saw the men standing in the passage, but got no answer to his greeting. As he heard uncanny laughter from several people in the yard, he tried to set on his dog, but it would not move. He heard his manager doing business with a gentleman in the next room, although all the doors were shut, and he looked at them both through the fanlight in the door. Then an attack of giddiness came on.

As the result of these experiences, the patient thought of suicide

but was kept from it by the appearance of his little daughter. The two gentlemen came to him again, and begged him to sign the bill without any more delay. On going for a walk, he was astonished to see cavalry, whose horses went on stilts 2 metres high, charging the piles of hop-poles standing in the fields. His daughter, who was with him, tried in vain to talk him out of his ideas. When he got home he saw grinning faces everywhere, and horsemen fighting in the air with golden spears. A gentleman drank to him in a tumbler, saying, "You don't get away from us to-day, even if you have a dozen dogs with you." The men then offered him his own cheque-book, which he kept under a double lock, and tried to force him to sign, but they disappeared when he screamed. Then the wall opened, and a long procession came into the room, led by a "president" in a uniform covered with gold. He understood that the president's daughter was celebrating her engagement with an entertainment at which wine would not be spared. The patient was offered some. He complained of their breaking into his house to the president, who thereupon became visibly smaller and vanished into the wall. He came back, however, with wine and other good things, which he offered by way of an apology, and invited the patient to a concert. The banquet came to an end, and the whole company vanished. Then a voice summoned the patient to come to the concert, and he rode there with a companion, through the air. It was quite dark in the concert-hall. The music sounded through a long pendulum. A collection was made for the patient, producing 740 marks and some watches and diamond rings, but someone made off with the money, at which the president swore that he would be his death, and promised to send everything next morning. Next, the patient found that a couple of lovers had stolen into his house, so he had recourse to the police, and was brought by them to the hospital.

The patient tells about his experiences in a mood which is half perplexed and half amused, crying now and then because he ought to be at home at his work. He seems still to be convinced of the reality of the events described. Slight restlessness is also plainly seen. The physical signs are strong tremors of the outspread fingers, a little uncertainty in speaking, and contraction and bad reaction of the pupils; but the last of these disturbances may be referred to the large use of opium during his illness. His liver is enlarged, and there is sugar in his urine.

We see again in this patient a number of features we learned to recognise in the previous case—the characteristically fantastic and dreamlike experiences, the extraordinary clearness to the senses of the hallucinations, the half-apprehensive, half-humorous mood, and the restlessness and tremors. On the other hand, the patient, for the time, has a correct idea of places and things. That seems generally to have been the case during the course of his illness, but at times it was not so—*e.g.*, during the delirious concert. We cannot therefore look upon the difference as essential, but only as one of degree. Lastly, in this patient also we have been able to call up illusions by slight pressure on the eyes, a phenomenon very frequent in sufferers from alcoholic delirium. We will therefore not be wrong in assuming that this is also a case of delirium tremens.*

Both patients had sugar in their urine, though it was only found for a short time in the first case. This is not a regular symptom, but at the height of the disease albumin may generally be found in the urine, and certain changes seem to take place in the blood. All these phenomena point to this conclusion : that the abuse of alcohol leads to severe disturbances in the physical economy, which we must apparently consider to be the direct and immediate cause of delirium tremens. There can hardly be any question of immediate alcoholic poisoning, because the clinical picture is very different from that of intoxication, and also because the delirium ends in a few days, even if drinking is continued. Moreover, the delirium may set in after some time of complete abstention from alcohol. Our present cases also show that the withdrawal of alcohol is not the most important cause, or, rather is apparently no cause at all, of the outbreak of the delirium. Both patients went on drinking till the disease was completely developed. This is not without importance in the treatment of the illness. The administration of alcohol has by no means so favourable an influence on the course of the disturbance as has always been assumed hitherto. I have treated delirium tremens myself for many years quite without alcohol, and have had every reason to be satisfied with the result. To combat the dangerous weakness of the heart, I prefer caffein, camphor, and, under some circumstances, strophanthus. I have also found warm baths very useful. Of hypnotics I consider paraldehyde the most effective and at the same time the least dangerous.

* The patient became clear after the delirium had lasted six days.

The collectedness and clearness shown by the last patient throughout almost the whole of the delirium, in spite of the most vivid hallucinations, may be said to mark the transition to another and nearly allied form of alcoholic mental disturbance. The agent, aged thirty-five, whom I will show you as an example of this, was sent here from the surgical hospital. The patient has chopped off the terminal joint of his left little finger. He is almost quiet, and is quite collected and clear about time and place. But in a conversation of any length we can clearly perceive a secret apprehension. He says he is not mad, and will not stay here, because, if he does, he will never see his children again. He knows very well that he has been condemned, and will be pursued by the police and executed ; the scaffold is up already. He begs for mercy. He suddenly breaks off in the middle of his conversation, listens intently, and declares that he hears voices, which he can distinguish quite plainly. He is telegraphed to through the telegraph apparatus we have in the house. When asked to repeat the words he hears, he does so in a sing-song tone : " Seven oaths—father no perjury—four perjuries—no, two—not quite sure—good people—honourable people—father strangled mother—son good fellow—brother a, brother a—no brother at all—father has strangled mother—because it was not said wife had it with my husband." He goes on talking in this way, as if he were following a telegraphic communication, and then asks quite quietly, " Is it true that my father and mother are dead ?" There was a singing in his ears, and then he felt a blow on his belly as if glass were pressing in. When he coughed, it rose up hot in his head.

There is nothing to be heard of hallucinations of sight. To the question how long he has been ill, the patient answers without hesitation, " For three and a half weeks," although he said before that he was well. The voices began then ; they said, " Fresh eggs, good eggs—All's well that ends well—If you don't come to-day, you'll come to-morrow." Everything was asked about ; if he thought anything to himself, the man who was talking to him knew it too. He has not seen him—" of course, he was far away." Others talked about him, but his wife did not notice it at all. Once he heard a voice up in the loft, " O God, if my husband sees that !" He went up with the oven-rake, but could not find anybody. He chopped off his finger because he was told that that would be a test if he had courage enough to be admitted

as a freemason. He was hypnotized by a doctor who would now be executed here. His three children had had their throats cut by his wife, and, as the voices told him, she had also stabbed an old man to death.

With regard to the development of the illness, we learn that the patient belongs to a healthy family, and that he married eleven years ago, and has four healthy children, while three are dead. He was always rather inconsiderate and extravagant, and had travelled for seven years. He had drunk a great deal since then, and become irritable, rough to his wife, and sexually dissolute. He came home unexpectedly one evening about four weeks ago, and his crazy manner was at once remarked. He ate nothing and could not sleep, complained that he was hypnotized and would be beheaded, and accused his wife of having given herself to other men, and got 20,000 marks for it. His hands trembled strongly. He was restless, answered voices he heard, spoke to himself, expressed ideas of persecution, and threatened those around him. He became more and more apprehensive during the last week, and wanted to cut his throat and drown himself, ran into the water, gave himself several stabs, and was in the act of driving a knife into his forearm, when his wife prevented him. Finally he chopped off the end of his finger. The patient himself declares that when he began to hear voices, while he was travelling, he suddenly became very apprehensive, and felt himself driven home. At home the voices had already taken precautions, and reported everything. They told him that he had been hypnotized with a machine by a doctor, who was a thought-reader and was called Wagner, and that his wife had been proclaimed a common prostitute. The patient admits that he has drunk hard; that cannot be avoided in his occupation. He adds, "When I am well again, I would rather go into the cigar business." To the objection that he is to be executed next day, he replies that he may still be pardoned; perhaps they will think that they really cannot execute the insane fellow. No physical disturbances can be seen now, except very bad sleep and fine tremors of the outspread fingers.

The picture of disease before you has a certain resemblance to delirium tremens, in the quickly-developed, fantastic delusions, the vividness of the hallucinations, the remarkable combination of insane ideas with a sense of illness, and the alcoholic origin. It differs from that disease chiefly in its *much longer duration*,

in the absence of any disturbance of the patient's idea of his position, and in the predominance of *hallucinations of hearing*, compared with the prevalence of hallucinations of sight in delirium tremens. The unrest, too, is generally less, and the tremors are not nearly so pronounced. For these reasons, it seems best to distinguish this illness from delirium tremens, although the two are certainly nearly related. We call this disease *alcoholic mania*. Its course may extend over several weeks or even months. The outcome is generally complete recovery,* but there is a much greater number of cases than in delirium tremens in which incurable states of weakness remain, usually with particular permanent delusions and hallucinations. Those cases more especially seem to take this unfavourable course, in which hallucinations of other senses appear together with those of hearing. Unfortunately, the special characteristics of these conditions are not yet perfectly understood. The treatment involves the most careful watching because of the danger of suicide, and also long and complete deprivation of alcohol. If this is not carried out, relapses are certainly to be expected.

* Our patient became sane after the disease had lasted six weeks. Now, after seven years, he does not drink, but lives apart from his wife.

LECTURE XII

INSANITY AFTER ACUTE DISEASES

GENTLEMEN,—The servant-girl, aged thirty, whom I have had brought into the room in bed, will give the impression that she is seriously ill at the very first glance. She lies with sunken features, trembling slightly, responds in no way when she is spoken to, or at the most turns her head a little, and does not speak at all. On urgent persuasion, she slowly puts out her tongue, which is dry, red, and covered with brown crusts, her lips and teeth being covered with sordes. The patient does not obey any other orders, but makes all kinds of uncertain, rubbing movements. Her expression is unintelligent and cheerful. Her temperature is rather high, her pulse over 100, soft, and not dichrotic. The physical examination shows no other perceptible changes, except exaggerated knee-jerks, signs of ankle clonus, and a little albumin in the urine.

If we try, on this meagre foundation, to form at least an approximate idea of the nature of her complaint, the patient's severe *stupefaction* will be the most important psychological symptom. As she has shown her tongue, it is not probable that her stuporose condition depends on negativism, and we must rather suppose that she takes in and understands what is said to her imperfectly. Neither does there seem to be any impediment in the psychomotor province, as her independent movements, though showing great weakness, are carried out without difficulty. Indeed, we may conclude that there is slight restlessness. Her mood is neither sad nor apprehensive. Lastly, it is plain that she has some acute physical disease in a severe form, which cannot at present be recognised exactly.

If we inquire into the development of the condition and the patient's family history, we learn that her grandfather came to

his end by suicide, that her mother is nervous, and that several brothers and sisters died in childhood of convulsions. She was well herself until four days ago, and had only slept badly for two nights before. After having done some house-work in the morning, she complained of great heat at noon, and very quickly fell into a delirious condition, in which she tossed about restlessly in bed, and thought that she would be burned or taken away by the policemen and executed, that she was the wandering Jew, and that people railed against her. She became quieter in the night, but was so excited again next day that she had to be transferred to the hospital. Here she showed the greatest restlessness, rubbed and stroked about on her body, tossed herself this way and that, and twisted her hair, so that an accurate examination was impossible. She did not answer questions, but talked to herself quite incoherently in single, abrupt sentences, bringing in words caught up by chance. One got the impression that the patient had numerous hallucinations of sight and hearing. She did not eat anything, her lips were dry and covered with crusts, and menstruation occurred.

The aimless restlessness was very great again during the next night. The patient chattered confusedly to herself, slid about on the floor, threw her legs in the air, knocked on the boards and the beds, pulled out other patients, hit out round her, and let herself fall out of bed. Giddiness and great unsteadiness on her legs were noticed. On the third day of the illness the restlessness continued, but the patient began to answer the questions addressed to her sometimes, though only to return to her confused talking again. She obeyed orders occasionally, and showed her tongue when it was done before her. Her temperature in the evening was about 38.4° C., but could not be taken accurately. During the next night the patient was rather quieter, and talked nonsense to herself in a low tone. Yesterday morning, too, she was quiet, very much dazed, and giddy. She talked in a low tone and confusedly, bringing in single words she caught up. Her temperature was 37.5° C. in the morning and 38.4° C. in the evening, her pulse 132; at mid-day she had a thin yellow stool in bed. In the afternoon the patient asked for water, as her tongue was so dry. She said that she had no headache, and that she thought she recognised the doctor, but did not know who he was. Her mood was indifferent, rather changeable, and not predominantly apprehensive.

The development of the illness described quite excludes the idea of paralysis, on account of the suddenness with which the delirium broke out; nor, indeed, is there any other ground for such a supposition. The psychical condition hardly corresponds to that of dementia præcox, which might also be suggested. The severe disturbance of comprehension and the deeply-clouded consciousness are more especially opposed to the idea of this disease, and the patient's talk was neither senseless nor stereotyped, but only incoherent and delirious, and no signs of stereotypism, automatic obedience, or negativism have appeared in her behaviour. We could only establish great divertibility rather by outward than by inward incentives. We must also dismiss the possibility of maniacal stupor. As has already been said, there was no impediment in the psychomotor province, but lively excitement and garrulity, with the most severe stupefaction. Now, the impediment of thought in maniacal stupor usually affects comprehension and the course of thought far less, but is associated with impediment of the impulses of the will, including those in the province of speech. The confusion of the patient's remarks was much greater than what is observed in the occasional speech of sufferers from maniacal stupor. Lastly, the extraordinary rapidity with which the severe symptoms set in is quite unusual in that disease. Thus, the hypothesis of a post-epileptic or hysterical state of semi-consciousness is the only one left. As regards this, it must first be noticed that there is absolutely no support for the idea of either the one or the other disease in the patient's previous history. Again, the well-defined, apprehensive, irritable, or extravagant mood, which we do not usually miss in this condition, is entirely wanting. Neither can we find any definite delirious purport in the patient's talk, as is always the case in those diseases, so far as the patients express their thoughts at all. The confusion is much greater than we could expect, where, as in this case, the patient still understands particular questions correctly, and tries to answer them.

In this last respect, the condition of our patient must remind us strongly of the deliriums of certain *febrile states*, in which, in the midst of all kinds of incoherent nonsense, it is still possible to get a correct answer by speaking loudly or emphatically. As there is an increase in the temperature, though a slight one, the question must always present itself, whether some severe physical illness does not form the basis of the psychical disturbance.

The severity of the whole picture of disease, the albumin in the urine, the formation of sordes on the tongue and lips, and the great weakness and uncertainty of the patient's movements, give this supposition great support. The slight increase in the temperature of itself cannot, of course, produce these disturbances, while the sudden appearance of so severe an illness points with a certain degree of probability to the occurrence of *poisoning* or *toxic infection*. The physical signs are at present so ambiguous that it is impossible to be quite certain about the kind of poisoning. We will, however, remember that sudden delirious conditions of this kind are not very infrequently observed at the beginning of small-pox and typhus, and at first may easily be mistaken for other mental disturbances. Small-pox is, upon the whole position of things from the very first, extremely unlikely. On the other hand, we have learned that there have actually been some cases of typhus in the place where our patient has resided. The course of the physical disturbances, too, up till now can very well be reconciled with the supposition that this is the beginning of *typhus*, even if conclusive grounds for the belief cannot be found in it. It seemed to us, however, even at the first examination of the patient, that the diagnosis of a typhoid "*initial delirium*" was the most probable, on the strength of the considerations adduced.

If our conception is correct, the present severe condition will not last very long. Initial delirium generally disappears with the further development of the disease, but may be replaced by ordinary fever delirium, which generally causes much less stupefaction. But attacks of typhus beginning with initial delirium are, as a rule, extraordinarily severe, so that in more than half of such cases the patients seem to succumb quickly. We must therefore be prepared for such a result in this case.* To guard against it, we must have recourse, besides careful nursing and watching, to special treatment by protracted baths, skilful feeding, and transfusions of common salt. Perhaps we may thus succeed in bringing the patient over this first and most critical period of her illness.

Fortunately the other mental disturbances produced by acute diseases have not the same bad prognostic significance as initial

* The patient died early in the tenth day of her illness. Its whole further course, as well as the post-mortem examination, coincided with those of a severe infectious disease, and more especially of typhus.

delirium. Indeed, these and a few other forms are the only kinds of insanity which admit of, and almost always arrive at, complete and permanent recovery, even in the strictest scientific sense. Here I will show you a woman, aged fifty, who sits before you apathetically, but answers questions in a low, tired voice. She knows that she is in a hospital and that we are doctors, but cannot say how long she has been here or how she came here. She has had erysipelas, and "that struck back into her head"; then she was quite confused, and does not know what happened. She says that she heard voices and saw apparitions, but cannot tell us anything more precise about them than that birds flew about. The patient understands with difficulty, has to think a long time even over simple questions about her age and birthday, and the month and day it is, and answers hesitatingly and in monosyllables, often incorrectly, or at least uncertainly. She does not think she is ill. She does not obey orders until they have been given repeatedly and emphatically. Her mood is rather depressed and tearful, but distinctly dull. As to the development of the disease, we know that the woman belongs to a healthy family, and was healthy herself until she came into the hospital three weeks ago with erysipelas. There great heart-weakness suddenly appeared, and at the same time the patient declared that she was dead, refused to eat anything, and had to be fed artificially. After a relapse of the erysipelas, the temperature suddenly fell to 35.8° C. a fortnight ago, and the patient became quite apathetic and confused, and began to have hallucinations.

The picture the patient now presents cannot be brought into agreement with any of the forms we have studied so far. There is, indeed, a certain resemblance to circular stupor, but the patient's confusion and want of clearness are too great for this, and the severe emotional depression is wanting. Finally, there is not so much an impediment in the psychomotor sphere, which cannot be overcome by any efforts, as a certain *atony* or indolence. Neither will the picture fit into the frame of dementia præcox. Pronounced confusion and want of clearness are hardly ever found in that disease, except at the very beginning and in association with lively apprehensive fluctuations of feeling, and generally with very marked hallucinations of hearing, about which we can easily learn, owing to the patient's good comprehension. Besides this, the strangeness of the actions and wishes, which generally

gives its peculiar stamp to dementia præcox at all stages of the disease, is entirely wanting in our patient. Hence, even without any knowledge of the previous history of the case, we would not see any of the forms of insanity hitherto described in the clinical condition before us.

On the other hand, the signs of *psychical enfeeblement* which we find present in an equal degree in the spheres of comprehension, thought, memory, emotion, and action, would point to the fact that an injury of a general kind may have occurred, and made its influence felt in all these directions. We would think first of some kind of paralysis, but for this there is no satisfactory support in the entirely negative result of the physical examination. Under these circumstances, we might with some probability advance the hypothesis that there has been an acute physical illness. In reality, we have arrived at this conclusion without any trouble, from the patient's own statements, but I wished to show you that in case of necessity we could have found our own solution without her help.

This is important for the following reason : even where there has been a preceding physical illness, it need by no means always be the real cause of the mental disturbance. Indeed, we see often enough that attacks of maniacal-depressive insanity, of dementia præcox, and occasionally even of paralysis, are only suddenly and accidentally developed by a physical illness. In such cases it is of course impossible to infer the occasion which provoked it from the clinical picture, neither can we draw any conclusions as to the further course and the probable result of the mental disturbance from the way in which it began, as we have been able to do with our patient here. If we are sure that the psychosis has been caused by the erysipelas alone, as the special clinical form of the picture of disease shows us here, we may with certainty predict *a quick and favourable course* for the case.*

We must probably consider an affection of the cortex, produced by the poison of the disease and gradually passing off again, to be the actual basis of the patient's condition. This supposition is confirmed by the fact that the first psychical disturbances appeared just after the erysipelas had reached its height. Forms

* After the disturbance had lasted six weeks the patient became perfectly sane, and has continued so for five years until now. The treatment will have to consist essentially of rest in bed and the highest feeding possible.

such as this are generally included, together with certain clinical pictures of dementia præcox and maniacal-depressive insanity, under the name of "acute curable dementia." For the reasons I have given, I would rather speak of an *infectious state of weakness*, and would further lay the greatest stress on its being sharply distinguished from stages of other diseases which are very similar to it at the first glance, but are entirely different in their origin, course, and result.

In spite of great external differences, the following case is nearly akin to that which we have just discussed. This is the case of a whitewasher, a married man, aged thirty. This physically well-developed patient is only moderately nourished, and has a marked mitral insufficiency, an old swollen gland on the right side of his neck, and a fairly well-healed fracture of the right fore-arm. There are no other physical defects. He is attentive, understands us well, and gives his age and name correctly at once, but does not know exactly when he came here or where he is; he has heard something said about a lunatic asylum. He gives consecutive information about his business and his past life, but soon gets into a state of some excitement, and begins to lament in a peculiar, incoherent way. He introduces all kinds of recent experiences into his lamentations, such as artificial feeding, expressions used by other patients or by the doctors, and also words and grimaces which he just catches up. "On account of the tube, that must be scarlet-red, like nature, like blood, that they can tear out one's whole sex and put it back again. When they lift up the glass with the indiarubber tube, that lasts a hundred years. I want nothing but home. They want to take off our hands and feet. The time comes rats and mice and everything in the world. Everything comes from the backside. I squeezed them to death; they came from me; they say so all together. Our mother and we lived on wild beasts, on snakes and everything, and everything sprang from us. Ha! when one is done for, one will still fly about so, when the eyes are out and everything is done for, as evil spirits. That is a Japanese, the first doctor. The voices speak as if they were my wife and children. I have seen no one. If I were out, I would be well, but here they want to take out one's sex. They are in the bath as if they were done for. If one puts down one's shoes, they are gone." The doctors "were very often there, one mostly; they say they are doctors." He does not know their names exactly.

He thinks he has seen one of the audience before, the one "with the blue tie."

Here we have first to notice that the patient comprehends particular things quite well—as, for instance, the presence of a Japanese colleague—and that his attention may be diverted by them. It is also always possible to interrupt him at once, and to induce him to enter on other subjects, though he soon digresses again. His *understanding of impressions* is evidently much disturbed. He does not understand his surroundings, and what takes place before him. Although he hears and remembers who we are and where he is, it is not clear to him that the relations of things correspond to the statements made to him. "I cannot understand that," he says himself. Hence everything seems strange, uncomfortable, and enigmatical to him. "I am bewitched," he says. "What silly things are being done there? Leave off, then, in God's name! I am to be shaved for ever like the devil; yet I'm not a devil. Then comes the key; they show it to me every day. Then the place is unlocked; there is something missing, and I must have taken it." He is "here in Heidelberg, if it is Heidelberg."

With this inability to get a connected understanding of events, and the *perplexity* which goes with it, *hallucinations* are also associated. The patient hears voices which he answers; apparently they are reproaches, against which he tries to defend himself, and threats. He is a robber and murderer; his sexual parts will be torn out. But, side by side with the hallucinations, there is also often a false interpretation of real but misunderstood perceptions. When a handkerchief is mentioned, he asks, "Am I supposed to have taken handkerchiefs too?" His delusions are all of a depressing character, but they change often, and are not followed up. His mood, too, is downcast and tearful, and sometimes despairing and irritable. He has tried to take his own life several times. He obeys orders readily, and puts out his tongue at once, when he is told that it is going to be cut off, though at the same time he pleads that you really cannot do such a thing, and that the tongue is the most sensitive part of the human body. In spite of his apprehension, he is incapable of defending himself, and allows anything to be done with him helplessly, like a child.

In the clinical picture before us, together with good comprehension of particular impressions, we see a far-reaching incapacity to connect them and to gain an understanding of the situation

and of the events taking place, great divertibility with lively attention, hallucinations, depressive, changeable delusions, sad, apprehensive depression, irritability and restlessness, and great weakness of will. It is impossible to find a place for this form of illness in any of the mental conditions previously described. The severe disturbance of the understanding and will is inconsistent with melancholia, while the idea of circular depression is excluded by the great want of clearness in the patient and the nature of the disturbance of his will, which is indicative, not of any impediment, but of incapacity to adapt his action to an end. Lastly, the clinical condition is distinguished from the depression of dementia præcox by the contrast of good attention with bad comprehension of things as a whole, while in that disease there is generally surprisingly good comprehension with little attention. It is also distinguished by the violence of the emotional excitement and the simple bewilderment of action, as opposed to the emotional dulness and the negativism, automatic obedience, impulsive outbursts, stereotypism, and mannerisms of dementia præcox. If we should think of the possibility of general paralysis, this would be contradicted by the absence of all physical signs, by the patient's mental and emotional activity, in spite of his bewilderment, and by his good memory and judgment of all occurrences in the more remote past.

It would seem that the combination presented here of good perception and active attention with bad understanding of impressions, divertibility, emotional depression, irritability, excitement and helplessness in action is diagnostic of certain forms of insanity appearing after *acute physical diseases*, whether the basis of the disease is formed by infectious causes or by exhaustion. As a matter of fact, there has been acute disease in the present case—*i.e.*, *articular rheumatism*. The patient belongs to a healthy family, except that his father was violently passionate. He was a good scholar and an industrious and temperate workman. He married at the age of twenty-three, and has three healthy children. At the age of fourteen he had an attack of articular rheumatism. He fell ill again of the same complaint about ten weeks ago, and had a great deal of pain. After four weeks the pain disappeared suddenly, but the patient began to talk in a confused way, expressed ideas of sin and persecution, was very restless, prayed a great deal, was very anxious to get out, and hardly ate or slept at all.

On being admitted to the hospital five weeks ago, the patient was confused, did not know what year it was, or the name of the Emperor, heard voices, particularly those of his wife and children, answered questions slowly and awkwardly, but relevantly, though often incorrectly, and could not do simple sums. His mood was depressed and apprehensive, and echolalia, echopraxis, and catalepsy transitorily appeared. These last disturbances gave rise to a suspicion of dementia præcox at first, but it had to be given up at the first examination, in consideration of the clinical picture as a whole. Indeed, we know that automatic obedience by itself is merely a symptom of a disturbance of the will, which may come under observation in very different forms of insanity. The patient's nutrition was very bad, and has substantially improved since then. At the same time, he has become more active and restless, but is no clearer yet. In this state you have seen him before you to-day.

The history or development described here exactly corresponds to our experience elsewhere, and the sudden disappearance of pain in the joints, in particular, on the setting in of the psychological disturbances, has often been observed. Considering the clinical picture, we cannot doubt that the articular rheumatism is the real cause of insanity here. The condition corresponds most clearly to that which, in imitation of *Meyner's* example, is usually called *hallucinatory confusion*, or *Amentia*. But, unfortunately, the same name is given to a number of essentially different and only outwardly similar conditions, belonging for the greater part to dementia præcox, but often to maniacal-depressive insanity, or to yet other diseases. This clinical picture, as we have defined it here, offers us the assured prospect of complete and permanent recovery, while the other forms alluded to do not. When, as in the present case, we really have a disease which is caused by physical illness only, rest in bed, good and careful feeding, prolonged baths under certain circumstances, and the occasional employment of medicine for inducing sleep or tranquillity, are enough to re-establish the patient in the course of a few months.*

* The patient completely recovered after the mental disturbance had lasted four months, and is still well now after one and a half years.

LECTURE XIII

VARIETIES OF DELIRIUM

GENTLEMEN,—From our investigations so far, you have learnt repeatedly that conditions which belong to the same examples of disease can appear extraordinarily different, while pictures which have a quite different clinical signification are often enough very similar. From this we must draw the conclusion that those symptoms which change in the course of the same disease, and on the other hand return in the same form in different courses of disease, are to be regarded as *universal* concomitant phenomena of mental disturbances, just like fever, pulse acceleration, and pain in physical illnesses. They do not admit of our forming any reliable conclusions upon the particular nature of the malady in question, and from this point of view are to be regarded only as accidental symptoms, be they ever so striking or dangerous. Opposed to these are the *distinguishing disturbances*, often apparently much more significant, but in reality diagnostically essential, which we invariably find in the most diverse cases of the same disease, and which reveal to us, therefore, the nature of the underlying malady. Of course, so far we know only a very small part of the essential symptoms of disease. It might be possible to establish that very many of the disturbances which now appear to come forward in quite similar form in different diseases might yet, by the most minute dissection in the one and in the other case, present certain differences. For example, we now distinguish between maniacal and katatonic-motor excitement, and between impediment of the will and negativism, of which the two first used to be comprehended under the common name of necessity of movement, the two last under the name of stupor. So far as we are already in a position to assign outwardly similar conditions, on the ground of distinguishing peculiarities

to various kinds of diseases, I have endeavoured up to now to point out the goal to you, and the road to it. To-day we shall also try to find out the distinctive hall-mark in a little group of apparently nearly related classes of disease, which makes the recognition of the peculiar clinical interpretation of an individual case possible.

The strongly-built school-teacher, aged forty, whom I will first show you, lies in bed with rather shrunken features and flushed face. He is in perpetual restlessness, burrows under the bed-clothes, rhythmically rubs about on his arms and legs, searches for and plucks at the coverlet, rolling and turning, while his movements are tremulous and uncertain. The patient does not trouble at all about his surroundings, generally does not answer questions, or at the most looks up for a moment ; is quite occupied with himself, talking foolishly in a disjointed and unintelligible way. Only on being spoken to very emphatically is his attention aroused and a few remarks obtained from him, which are at first sensible, but quickly become disconnected. He was twenty-four years old when he was born, son of the Emperor William ; his father is called Germanicus. He is engaged to a most beautiful Jewish girl, but no longer remembers her name. He is here in the infirmary which belongs to him ; sometimes he has the impression that he is rather deranged. The Emperor of Russia has made him a present of two thousand million mines in New Zealand ; they abound in gold. He has to die ; he cannot speak ; he has the sinews of a man-eater, a silver arm, and no longer a larynx. They wanted to tear out his eyes, and were going to put him in a new heart. He has raised considerably the height of the surrounding hills ; he can make mice.

The patient is divertible, is taken up with any casual impression, and jumps suddenly, simply anyhow, from one thought to another. He sees birds flying in the air, speaks of people being outside, who are not to come in ; says he has worked the whole night, and that he has cut the borders from the coverlets. His mood is now cheerful, now irritable and angry. Transitorily he becomes apprehensive, then breaks out into violent abuse ; desires that the warders who have to do with him should instantly be struck dead or shot to pieces.

The picture of disease that we have before us to-day is obviously one of *delirium*. The patient is stupefied, clouded, confused, and has hallucinations. Special features of the picture,

such as the trembling, the uncertainty of movement, the seeing of flying birds, the cheerful mood, the delirium of occupation, the tossing about and nestling, remind us very much of the alcoholic delirium already described. But we have a series of important deviations to note. Our patient is much more confused than subjects of alcoholic delirium usually are ; he also makes senseless statements as to his earlier circumstances ; lastly, the exceedingly fantastic delusions which he expresses point to a *change of consciousness of personality* such as never happens with these patients.

On the other hand, the physical examination of the patient at once shows us the right road. We have already noticed in his talk that his speech is slow, indistinct, and slurring. The pupils are unequal and insensible to light ; the sensibility to pain is lowered ; the features are flabby and expressionless ; the tongue is put out tremulously. Great rigidity exists in the legs, which makes it difficult to try the knee-reflex accurately ; but it shows distinctly. We very frequently meet with precisely this appearance in paralytics, in whom also the legs cannot be acted on in the usual way. On the sacrum there is a superficial skin-scurf ; on various places on the body we find little furuncular sores.

The physical symptoms prove beyond doubt that we have not to do with a rapid and probably curable delirium tremens, but with a condition which belongs to the course of forms of *general paralysis*. According to this interpretation, there is nothing remarkable in the patient's absurd ideas of greatness and insignificance, such as his illusionary information as to his age, parentage, and so on. With regard to the development of the malady, we learn that the patient, whose family circumstances are unknown, led earlier a very irregular life, and was very fond of strong drink. All information as to luetic illness is wanting. He was engaged to be married, and lately made every effort to obtain a Government appointment. The illness began quite gradually with headache, sleeplessness, defective appetite, and depression. Then the patient went a great deal to the public-house, drank more than usually, was exceedingly talkative, thrust himself into the foreground, "talked big," gave himself out for a rich man, gave large orders at a jeweller's, and fell into ever-increasing excitement, so that he had to be taken to the infirmary, where he was exceedingly violent, and from thence he had to be brought to us. He has been here four weeks.

As you may see, the development of the disease entirely corresponds with the diagnosis established by us on the ground of his present condition. Indeed, we also now recognise that the similarity of the description with an alcoholic delirium probably depended on a mixture of paralytic with alcoholic features. Nevertheless, I will remark in passing that similar, if somewhat differently-coloured, delirium also occasionally comes under observation in general paralysis without an alcoholic history. The form of this case of disease under observation is a very severe one ; it corresponds with those which we have mentioned before as acute general paralysis. We must therefore be prepared, even if the possibility of a remission is not to be quite excluded, for a rapidly unfavourable result which might be induced either through an apoplexy, septic pneumonia, or some septic infection.* We are treating the patient with the prolonged bath, which works favourably both for the restlessness and the skin sores. Though he sometimes eagerly takes food himself, yet he sometimes entirely refuses for a long time together, so that artificial feeding is often necessary. If imminent heart weakness threatens, we shall resort to saline transfusions.

The next patient whom I will show you, a goldsmith, aged twenty-six, is in such great excitement that he has to be held. He struggles violently on that account, tries to bite, snorts, makes faces, foams, slobbers, seizes his shirt with his teeth, trying to tear out a piece, tries to seize hold of anything with his hands, clings spasmodically to what he has grasped, twists himself, and treads with his feet. Persuasion makes apparently no impression at all on him ; he does not look up, gives no answer, obeys no orders, but struggles with all his might and with a defiant expression of countenance to get away from the restraining arms. Suddenly he begins to bawl, " Hah, hah, hah !—will you make me sweat—that is a right Christ—and the rest shall go out ! All that goes away ! Then I shall hear who comes there. Will you force me—all out, and my thing out that doesn't belong to you, all." Gradually he becomes quieter, so that he can be let free. He now sits upright in bed, the upper part of his body inclined forwards, his arms stretched out at full length, while he nods his head with a smile, quickly moves a cloth as if to strike, tries to tear it, draws it through his mouth, and will not allow it

* The patient succumbed seven weeks after admission, as the result of an apoplexy.

to be taken away. Then he calls out, "Bring me my money, bring me my blood, bring me my sweat." He snatches the key away from the warder, and shrieks, "Away, who sweats—all away, who sweats! Go in there! That one who has been there and has taken me, remains there—here, ha, no trouble at all!" Then he leans back, stretches out his arms, wraps his hands in the corner of his coat, and remains lying rigidly in that position. If you try to change his position or to take his hand, he at once falls into great rigidity; if you approach his head, he shrinks it back a little, but allows a needle to be stuck into his forehead without resistance, and does not remove it. He does not say anything more, but once nods his head when he is asked whether he knows the doctor. An accurate physical examination is not possible on account of the patient's resistance.

If we would rightly interpret this condition of confused excitement, we have in the first place to notice that the perception of the patient presents apparently no disturbance. His efforts to seize and to tear something, also to get free, were so adroit that they were only possible with the most rapid and complete use of the impressions of the senses. That the patient opposes all addresses and orders cannot be attributed to poor comprehension, but only to opposition. But the opposition might perhaps be dependent on delusions or on apprehension. To the first, neither the actions of the patient nor his speech pointed in any tangible way; in any case, it would be exceedingly difficult to explain the whole strange behaviour from definite delusionary lines of thought. But it also follows from his smile, and especially from his indifference to the needle-sticking, while the gentlest touching of his hand immediately brought on the strongest opposition, that apprehension was not the motive of his actions.

It is precisely this last-named circumstance that perhaps makes it clearest to us that here we have to do with symptoms of negativism with instinctive opposition, without foundation from apprehension or illusions. These latter being more frequently absent than present, can consequently in no case form the true reason of negativistic appearances. But, apart from certain conditions of disease in old age as yet little investigated, negativism comes under observation virtually only in dementia præcox, though occasionally also in general paralysis.

On account of the impossibility of a physical examination, we cannot with entire certainty exclude the latter disease, though

the age of the patient makes it very improbable. The great agility of his movements is also contradictory to that assumption. On the other hand, the abrupt alternation between senseless excitement and rigid tension, the taking up of peculiar attitudes, and lastly, the high degree of confusion of talk with good comprehension, the uniform return of the same turns of expression, and his meaningless ejaculations, containing no reference to any given circumstances, remind us forcibly of our former experiences of the picture of disease of *katatonia*. To this also belongs the slobbering, since it usually appears with extreme frequency in dementia præcox, either temporarily or permanently. Therefore, with the greatest probability, we must take our patient for *katatonic*.

As to the development of the malady, we must note that the strongly-built patient comes of a healthy family, but from his youth up was always somewhat peculiar. During his military service, which he went through otherwise satisfactorily, a peculiar play of features (grimacing) gave rise to remarks. The present illness began quite gradually about eight weeks ago. After the patient had been very restless and had got up a dozen times during the night, the following night he began to groan and to call out aloud, and threw various articles out of the window. The second day he was angry, spoke at times confusedly, but remembered his behaviour in the night. His excitement now increased very rapidly. He asked whether he would be hanged or beheaded, wished to hang himself up, becoming very violent, threw his mother on the ground, overturned a stove, and at last sprang out of the window, although his hands and feet were fastened, without, however, doing himself serious harm. On admission to the hospital four days later, the patient was quite quiet and entirely clear, but had imperfect remembrance of what had occurred—at least, he hardly spoke at all about it, but also showed no wish to become enlightened as to his experiences and his condition, and took no thought of the future.

The almost sudden beginning of the violent, confused excitement, accompanied by states of lively apprehension and ideas of persecution, the rapid disappearance of the symptoms of disease, and the very imperfect remembrance of the attack, very much suggested the presumption of post-epileptic mania. But after a more accurate examination we had to reject this assumption as improbable, as after the cessation of the excitement, although a distinct weakness of comprehension did not exist,

yet the patient was entirely wanting in that clear and complete understanding of the disease which is never absent in the epileptic. Epileptic patients, as a rule, perceive with accuracy that from a certain point of time a profound morbid revolution has taken place in them, whose end is indicated by the correction of the delusions and the endeavour to separate the morbid occurrences as sharply as possible from healthy life. It is only in advanced imbecility that this lucid attitude towards the conditions of disease gradually becomes effaced. Moreover, all symptoms on which to found a diagnosis of epilepsy were wanting in our patient's previous history. Therefore we came to the conclusion, at that time, that a katatonic state of excitement had to be dealt with which would be followed by a remission of probably not very long duration.

In point of fact, the patient was only four weeks at home, then again became excited, and yesterday was brought back to us in the condition in which you now see him. This time also we may perhaps expect that the excitement will not last very long, and will result in a new remission or in stupor. On the other hand, one can predict with considerable probability that finally, after several intermediate attacks, a more or less marked degree of feebleness of mind and sensibility will remain behind.* The treatment evidently presents great difficulties, as there is no saying what the patient will not do, and he may at any moment do the greatest violence to himself or to others. He needs, therefore, the most careful watching, both in bed and in the bath. If the excitement should for a time so increase that the bath treatment becomes impossible, we shall be compelled with the aid of hyoscin to have recourse to regular wet-sheet packings, which in such cases are often of most signal service. The patient very soon becomes accustomed to give up his original resistance. After two hours we release the patient from the pack, but repeat this as required at short intervals until some tranquillity is induced, and the bath treatment resumed. As a rule, that is generally arrived at after a few days.

* The patient so far gradually improved that six months later he was able to return home. Nevertheless, after another six months, he again became excited, and presented as before, with entire rationality an irregular change between negativistic stupor, unconcern, and instinctive violence, with a tendency to play on words and grimacing. For a year and a half he has remained unchanged in a nursing asylum.

The third patient whom you see before you to-day, a cigar-maker, aged thirty-nine, has also to be supervised by several warders. It is true, he lies there quietly for a moment, breathing hurriedly, with rigid, open eyes and large pupils, and does not move if one speaks to him, pinches him, or even touches the cornea. The knee-jerks are exceedingly active. Suddenly the patient springs up, tries to throw himself out of the bed, and begins with senseless violence to fight those nearest him, so that he can only be held with the greatest trouble. Meanwhile he calls out loudly : " Let them out, now it comes, mother, mother—go away ; let them run past ; help, help me—help, come. We go out there, Jesus, Mary—let them pass, Katie ; come, take me to you, Katie." He repeats the last words many times. Gradually he becomes quieter, murmurs low to himself, sinks back, and now lies motionless as before. After five or ten minutes the excitement recurs with a sudden springing up. From the patient's broken sentences we can make out the following : " Don't go so near, you will fall in ; throw him something. What are you putting in there ? I shut the barrier again. We don't go out, it won't do. You bulldog, get away ! the nasty brute. Fritz, put to (harness), or I will throttle you. Throw him away, squeeze him, till he has had enough. The nasty brute sets the dog on me." With signs of the most terrified apprehension, he goes on : " Grandmother, the red witch, still laughs ; Fritz, now he brings his lads with him. Now they lay hold of me by my new coat, Hermann. Go a flight of stairs higher ; it is not I. Let me go ; I must go to the factory, Theresa " ; and so on. This change from excitement to lying in stupor repeats itself over and over again. Even in the excitements it is impossible to obtain any answer or reaction from the patient when addressed.

In spite of many outward similarities, this patient is at once distinguished from the former one by the fact that he is *very stupefied*. His assaults are made with great violence, but quite without the adroitness and finesse which we observed in the other patient. As the patient does not react to any outward stimulus, we have no cause to assume that he is negativistic, especially as in the pauses he sometimes allows his arms to be moved without any will of his own. On the other hand, the patient's talk is certainly disconnected, but comprehensible throughout. One easily sees that he lives in a dream-world with changing incidents, with which his utterances accord. Lastly, there exist markedly

in him very severe fluctuations of emotion, especially of an apprehensive kind, when he believes himself to be surrounded by dangers making him defend his life. The condition is therefore evidently one of *delirium*.

Of the varieties of delirium that we have hitherto considered, the alcoholic would from the first be excluded on account of the profound stupefaction, and from the want of the peculiar kind of unrest as well as of the tremors. Also, the clouding of consciousness is too deep for an ordinary fever delirium; this also, along with the want of the symptomatic disturbances of will contradicts the assumption of a katatonic state of excitement. Certainly, the constant repetitions of the same ejaculations might be construed as katatonic stereotypism; I might observe, however, that we have to deal with ejaculations which, according to their purport, form the *expression of apprehensive states of mind*. Their repetition, therefore, is very well explained by the lively apprehension itself, without our having any reason to assume an aimless instinctive compulsory force. In a paralytic delirium, or in the initial delirium of typhus, we certainly meet with profound stupefaction, yet in neither of those cases should we be able, even in a small degree, to follow the purport of the very confused delirium. In both of these conditions the outward perception is less disturbed and the delirium far more incoherent than in this case. Also, the movements of our patient are of greater strength and force than we should expect to meet with in those two conditions.

But, lastly, the case under consideration, with its profound disturbance of comprehension, its active delirium, its extreme apprehension, the inclination to reckless acts of violence, and the change from stupor to suddenly recurring excitement, absolutely corresponds with that of certain *epileptic semi-conscious conditions*. The large immobile pupils are also in favour of this assumption. We may therefore expect that after a quite short time, probably after a few days or hours, tranquillity, lucidity, and insight into the illness will set in, without clear remembrance of the present occurrences, but that sooner or later similar phenomena will be repeated. Under these circumstances, the treatment can be reduced to strict supervision of the patient, whom we have placed in a padded bed.

If we now look back upon the previous history of the patient, to see whether further support can be discovered for our inter-

pretation, we learn that a brother of his mother's was insane. He himself was run over at nine years old, and was at that time for some days unconscious. For a long time latterly he has drunk pretty deeply, though he could not stand much. Till his fourth year he suffered from infantile convulsions and wetting the bed. At school slight attacks of giddiness often still came on, but he learnt quite easily. Later on, too, he was often very giddy in the morning. In his thirty-fourth year a condition in connection with abuse of alcohol came on for the first time, in which he was delirious, expressed ideas of grandeur, did not know where he was, and only came to himself after eight days in a hospital for the treatment of the insane. At that time he led a very unsteady life. It frequently drove him away from his work without any definite reason, so that he left everything in the lurch, even money due to him, and went out haphazard into the world. The semi-conscious conditions were repeated several times, and led him into various asylums. In such a condition he came to us about four weeks ago, but soon became lucid again. Some days after admission a fresh attack of similar kind set in, and afterwards the patient was low-spirited during the whole day. The attack quite resembled the present one. After three hours' duration of the attack, the patient fell into a deep sleep, from which he awoke next morning without remembrance of what had happened. The repeated depressions, very well described by the patient himself, were very pronounced. He felt "as if he had a terrific 'next-morning headache,' and was obliged, without any reason, to stare into a corner, and wish that someone would put him to death; life had no longer any value for him." Anxiety to get away was also observed in these conditions. It was all over after one or two days. Such states of ill-temper regularly preceded the states of semi-consciousness which set in quite suddenly. The most trivial cause could then put him into the most violent rage.

As you will see, this previous history quite corresponds with our expectations. It is true that real epileptic attacks of convulsions appeared only in earliest childhood. Later on there were only attacks of giddiness, but exceedingly symptomatic bad temper and semi-conscious conditions of a much more severe kind were especially observed, their appearance being promoted through indulgence in alcohol. The regular return of these conditions, the deep obfuscation resulting from it, its rapid ending,

and the want of remembrance afterwards, leave not the smallest doubt as to the epileptic nature of these attacks, even if we do not allow the not less characteristic bad temper to count as sure proof of the existence of epilepsy. The illness evidently goes back to early childhood ; the accident in the ninth year is hardly to be looked upon, as one might at first think, as the cause of the malady which most probably existed previously. In spite of this long duration of illness, the patient is, however, not imbecile worth mentioning. Certainly he shows the pedantry, the sensitiveness, and the outward piety of the epileptic, but is possessed of quite fair knowledge, moderately good judgment, and the inclination to occupy himself not only physically, but also mentally. But for all that, on account of the danger to himself and his neighbours, permanent residence in an asylum is hardly to be avoided.*

* The patient remains unchanged in a nursing asylum.

LECTURE XIV

PUERPERAL INSANITY

GENTLEMEN,—The revolutions brought about in the physical economy of women by the different stages of the work of reproduction are so far-reaching that they cannot but influence the course of mental disturbances. As a matter of fact, we see psychical illness developed in the puerperal state in about 7 per cent. of the women admitted to asylums, and rather less frequently during pregnancy or lactation. We have repeatedly come across such cases in the course of these lectures. But experience shows that all the observations of this kind are not of equal value. People very often speak of “puerperal mania” in the sense of a particular form of insanity produced exclusively by the puerperium, but this view can only be maintained to-day within very narrow limits. Where mania really appears in the puerperal state, it is, like every other kind of mania, only a link in the chain of attacks of maniacal-depressive insanity. The puerperium cannot therefore be regarded as the cause, but only as the last impulse to the outbreak of the disease. Accordingly, we must be prepared for the occurrence of further attacks after some other provocation, or even without provocation. As a rule, however, the pictures of disease which develop in the puerperal state are not maniacal at all, but are essentially different from maniacal attacks even when they resemble them outwardly. Among these conditions, *katatonic states of excitement* are particularly common.

An example of illness setting in during pregnancy is offered by a woman aged twenty-nine, who was confined here a year ago. The patient is of medium height and ill-nourished. Her complexion is sallow, and there is bluish discoloration of the lips, hands, and feet. The tip of her nose and her toes and fingers

are very cold. Her expression is peculiarly strained ; you can see deep transverse lines on her forehead, and her eyebrows are drawn together. The patient, who has to be led into the room, gives hardly any answer to questions, but shakes her head as if she did not understand them. After a little persuasion, however, we elicit some brief and monosyllabic statements about her name and birthday and the names of her children, made almost in a whisper. She often repeats a question before she answers it. While she is being questioned she gets up, goes to the window and looks out, and mentions half aloud the name of a man she knows who happens to be passing. Except for this, she takes very little heed of her surroundings, and looks straight in front of her, without even glancing up when she is spoken to. She obeys orders hesitatingly, and stops now and then while she is carrying them out. In giving her hand, she only touches the tips of my fingers indolently, and then draws it back. If we hold her hand tightly, we notice a certain degree of tension, which can be overcome by a little force. If this is done, the patient shows evident catalepsy. After orders repeatedly and emphatically given, she gets up slowly, goes to the blackboard, and writes the name of her youngest child. She also adds up numbers of two places quite correctly and comparatively quickly.

The patient's emotional state shows no definite bias. She is neither cheerful nor sad, nor is she apprehensive. You can stick a needle in her forehead or eyelid without her making any active defensive movement. She only pulls it out slowly, and lays it on the table again. Neither her behaviour nor her expression shows any interest in what goes on around her ; she only twists her face for a moment into an imbecile smile at a jocular remark which she understands. When left to herself, she gently murmurs almost incomprehensible sentences, accompanying them with monotonous rocking movements of her body and arms. " They have done for me—they ought to make a poem—I must go yonder," and the like. She repeats these expressions several times, but, in spite of the most pressing inquiries, she will give no explanation of them ; at the most, she shakes her head. Once she goes to the door and murmurs, " I want to go out," but does not go away when the door is opened for her. She shuts it again, and only repeats, " I must go out," pushing against it regularly with her knee. Lastly, the copious production of viscous, ill-smelling saliva, which she empties out on to the floor

from time to time without any consideration, is very remarkable. No other physical disturbance can be discovered.

The patient's whole attitude leaves no doubt that she is *demented*. She is able to recognise an acquaintance at once, and to do sums quickly and correctly, but cannot give the least information about her condition or judge of her position at all. There is therefore no question of dimming of consciousness, but of real dementia. This view is supported by her want of all interest in what passes around her and of all emotional activity. The key to a better understanding of her condition is afforded by the signs of negativism—the head-shaking, the rigidity of the limbs, the inaccessibility, the refusal of information, the hesitating voluntary actions, and shutting the open door in spite of the wish to go away—the automatic obedience, the stereotypism in movement and speech, and finally the flow of saliva. All these symptoms are indications of the *katatonic state of disease* with which we are acquainted already, so that we may unhesitatingly attribute this case also to the same form of insanity.

It is true, and I must admit, that we took another view at first. I have already told you that there are states of mental weakness which have been described as “acute dementia,” and, unlike ordinary feeble-mindedness, are curable. It is supposed that these are cases of cortical changes, involving a fundamental degradation of all the psychical activities, without precluding recovery. We thought at first that we had such a case of acute dementia before us. But I have become more and more convinced in the course of time that most of the cases which are called acute dementia belong to the province of katatonia, and some of them to that of maniacal-depressive insanity. The rest are infectious states of weakness, which of course claim a special clinical position of their own. Under these circumstances, I now consider the diagnosis as acute dementia to be quite superseded, and I have abandoned it in the case before us. As a matter of fact, the further development of the clinical condition has given no cause for making any other diagnosis than that of katatonia.

As to the previous history of the case, I must now tell you that our patient's father suffered from epilepsy. She was mentally and physically well constituted herself, married four years ago, and had an apoplectic fit three years ago during her first pregnancy, as the result of which she was paralyzed on the right side for three months, but did not have her speech

affected. The child was born dead in the seventh month. A second child died of convulsions when nine months old. The present mental disturbance began in the last stage of the patient's third pregnancy. She left off speaking, took no natural interest in anything, and wanted to run out of the house. At the same time she expressed apprehension, thought people wished to kill her, and heard voices calling her. She made all kinds of extraordinary movements, ate and slept badly, and finally became quite dumb.

When admitted to the hospital a year ago, she was collected, but gave hardly any information, lay in bed apathetically and without any variation of feeling, obeyed simple orders promptly, and showed pronounced waxy flexibility. On the third day a boy was born without difficulty at the full time. The patient was quite indifferent to this, denied afterwards that she had had a child, and took no interest in it. In the next few weeks she became almost entirely stuporose, and then gradually grew rather excited. She ran about the place, tried senselessly to get out, and undressed herself. She also refused food, began to slobber, became dirty in her habits, stood all day at the door till her feet swelled, and pushed at it rhythmically with her knee, but did not go out when it was opened. She would give no information at all. She remembered the birth of the child quite well, and knew its name, but was quite mute when her relations visited her, declaring afterwards that she had not known what to say. An attempt to take the patient back into her family was a failure, as there, too, her habits were dirty and she tried to escape. Her weight, which had gradually sunk after the birth of the child, has increased again a little in the last few months, but without any improvement in her general condition.*

The appearance of katatonia during pregnancy is always so common that it is not very probable that it is an accidental coincidence. We must rather suppose that pregnancy, like the puerperium, is very favourable to the development of the disease. It seems to me to be the *stuporose* forms, quickly passing into profound dementia, which most readily appear, without there being as yet any satisfactory grounds for speaking of a particular "insanity of pregnancy." Parturition has either no influence on the course of the disease, or an unfavourable one. This is an observation of great importance, because it will keep us from

* The patient is now in a nursing asylum, completely demented.

inducing artificial abortion or premature birth in such cases—a measure which in reality is never indicated here. The *apoplectic fit* the patient had during her former pregnancy is very well worth our attention. It is naturally difficult to decide if it is connected with the katatonia, but I know several other cases where there have been similar attacks in the course of katatonia followed by paralysis, from which the patient afterwards recovered.

An entirely different picture is presented by the architect's wife, aged forty-one, whom I am now having carried into the room in bed. This very pale and ill-nourished patient is in a state of continual unrest. She claps her hands, exposes herself, tries to jump up, rolls in her bed, plucks at the pillows and sheets, throws herself about, and suddenly tears up her nightgown and throws away the shreds. Meanwhile she chatters and sings almost incessantly in a quite confused way, often in rhymes and assonances: "Good-morning, Mr. Privy Councillor; how goes it? how is it? [Wie geht es, wie steht es?] I was never so merry before as I am to-day—my dear Katie [Käthchen]—my dear Maggie [Gretchen], my dear girl [Mädchen]—what does that—there you are, my treasure—my husband is a scamp—he is dead," and so on. She speaks of St. Bartholomew's night, of crowns of thorns and nailing to the cross, of war, of spirits that beckon to her, and of men going past. The patient is senseless, mistakes people, and gives hardly any answer to questions; only now and then she takes up what she hears, and distorts it or gives it a playful turn. Her mood is excited, but changeable; erotic tendencies find vent in irritability and outbursts of violence. Her features are sunken, her tongue and lips are dry, covered with sordes, and cracked. The patient refuses fluids offered to her, or spits them out again. Her hands tremble strongly, but otherwise, except for the signs of recent parturition, no physical disturbances can be pointed out.

This state of excitement reminds us in its essential features of the description of mania. But the disturbance of comprehension and the clouding of consciousness seem to be much more pronounced. The confusion, too, in speech and action is surprisingly great compared with the degree of excitement. Then there are the delirious hallucinations, of which we see occasional indications in the patient's talk. It seems as if we would be right in regarding this kind of excitement, in which *severe disturbance of comprehension and thought* is combined with compara-

tively slight psychomotor excitement, as the manifestation of a course of disease which does not belong to maniacal-depressive insanity, but is produced by *exhausting* causes. Hence, we see it appear more especially in the puerperal state, also after great loss of blood, and, lastly, after certain very acute inflammatory diseases, particularly pneumonia and erysipelas. The very favourable prognosis is an essential feature of this form of insanity. So far as we know at present, complete and permanent recovery always results if the patient can be kept alive long enough. In our present case we may therefore hope, on the strength of the clinical history, for complete recovery from the present disturbance, in spite of its severity, without our having to fear any subsequent relapses, unless the effect of some new and very injurious influence should appear.

The patient, whose sister also suffered from mental derangement during a confinement, was a highly-gifted, active woman, and has only been married three years. She bore a child seventeen days ago. She was very much excited during her pregnancy, and had a great deal of trouble over it. When a little fever set in after the child was born, she became very restless and could not sleep, although her temperature soon fell again under the influence of douching. On the sixth day of her confinement she became quite confused, heard voices, saw pictures, mistook people, and did not know where she was. She began to sing and scream, and was brought to the hospital on account of her rapidly increasing excitement.

The peculiar form of the disturbance in this case shows that its connection with the puerperal state should very probably be considered a close one. This is not an attack of a disease like maniacal-depressive insanity, which might break out another time without any similar cause, but we may regard the injury caused by the confinement, which has taken place late in the life of this woman, who is no longer young, as the real cause of the mental illness. A prominent part is usually ascribed to exhaustion, but there are authorities who lay the principal stress on a preceding infection—that is, on sepsis with fever. In the case before us the appearance of fever would support the latter conception, yet the illness during the confinement was only slight, and cases of puerperal insanity occur without any sign of infection. These, however, are usually cases of katatonia. The question has not yet been really cleared up, but we may point out

that, even when there has been exhaustion, sepsis, though of another kind, must also be taken into consideration.

Two kinds of insanity of exhaustion are distinguished in accordance with their clinical course : (1) *Delirium of collapse*, with its very quickly and stormily passing course ; and (2) acute bewilderment, or amentia, which usually continues for several months. At present the first form seems to me to be the best-grounded clinically, and we may regard the case before us, with its extremely rapid commencement and its very severe disturbances, as an example of this class of disease. If this view be correct, we may hope for rapid and complete recovery after a course lasting only a week, or at most a fortnight, even though slight excitability and various changes of mood may remain for some time longer.* Recollection of the stormy period is not usually at all distinct. The doctor's task consists in very careful nursing and in keeping up the patient's strength. The right place for our patient is undoubtedly the prolonged bath, night and day, if possible. At the same time, generous feeding is required, which often necessitates the use of the tube on account of the patient's bewildered resistance. Alcohol may be added to the food to obtain tranquillity, and under some circumstances paraldehyde or trional. The slightly impaired action of the heart needs special watching. We strengthen it by the addition of strophanthus to the food, by injections of cocaine, or, in case of serious danger, by saline transfusions, which often have the effect of actually saving life. We have already used them in our present case with excellent results ; the action of the heart is so good at the present moment that we may look on the patient as out of danger.

The whole state of things is far more complicated in the case of a woman of twenty-nine, who was confined two months ago, and has now been five days in the hospital. The patient, whom I am also obliged to have brought here in bed, shows active restlessness. Arms, legs, and head are continually making jerking, aimless movements, which you immediately recognise as suggestive of *chorea*. The patient makes faces, twists her mouth, wrinkles her nose, shoots out her tongue, and snaps with her mouth. She rolls her head, pushes it back into the pillows, throws herself about, tosses her arms, and makes convulsive

* The patient became quiet and clear on the twelfth day of her illness, recovered very quickly, and has now been perfectly sane for nine years.

movements of pronation and supination. She often exposes herself involuntarily, and does not think of covering herself again. As she knocks herself about ruthlessly in this restlessness, she is covered all over with bruises. The patient's attention is difficult to hold. Now and then she answers a question quickly, but she is quite incapable of giving connected information, and is easily diverted by chance impressions. Sometimes she pays absolutely no attention to what goes on around her.

There seem to be occasional hallucinations of sight and hearing. The patient suddenly points with her finger, and says, "The King, the Emperor, who has screamed so there," or she names her brother, whom she thinks she has heard calling her. She is almost clear about her position and surroundings, but brings many events into delusionary connection with herself, and thinks that it is her fault that a fellow-patient is fed with the tube. Her mood shows no distinct colouring, but is rather cheerful than otherwise. From time to time the patient sings, yet she has a clear sense of illness. Her speech is abrupt and gushing, her talk is monotonous, nonsensical, incoherent, and interspersed with expletives relating to nothing: "For instance," "To what extent, then?" "I say nothing at all," "Red hearts meets no golden hearts. Shall I, then, always give away a golden heart? Fie, devil, once more! Golden hearts meet, living hearts meet, dead do not. One gets different hearts," and so on. Sometimes she makes inarticulate sounds.

When we let the patient get up, you see that her walk is unsteady and giddy; she simply lets herself fall, even on her face. The sensibility of the skin is increased, and the patient screams out loudly if you touch her with the point of a needle unexpectedly. Her state of nutrition is very bad, and her weight has sunk nearly 3 kilogrammes in five days. Her lips and tongue are dry and cracked. Her temperature is 39.1° C. The pulse is small, 120; the heart is somewhat displaced towards the left. At the apex of the heart a presystolic murmur may be heard. No other physical disturbances can be noticed, except that incipient superficial cellulitis of the left leg might come under consideration as the cause of the fever.

The most striking feature of the case is afforded by the choreic movements. Unfortunately, their clinical meaning is not quite clear. They may either be symptoms of a special disease, or accompaniments of hysteria. The severity of the whole condi-

tion and the signs of heart failure, which is known to be closely connected with chorea, would rather confirm the former conception. We learn that the patient, whose father died of an apoplectic attack, has suffered since her fifteenth year from attacks of unconsciousness, in which she gave a shriek, twitched her hands and feet, foamed at the mouth, and breathed heavily. These recurred on an average every six or eight weeks. She knew nothing afterwards of what had happened. She did not injure herself, except once when she bit her tongue slightly. The attacks lasted from five to ten minutes. The patient was tired after them, and slept for some hours. When she was twenty-one years old they ceased for three years, but then returned with greater frequency. Three years ago the patient married, having already had an illegitimate child. The attacks ceased again during her pregnancy. After her marriage the patient aborted twice in four months, then she fell ill two years ago of articular rheumatism. Six months later she was quite confused for four weeks, spoke very little and incoherently, mistook people, lay rigid, had to be fed, and was dirty in her habits. She had no recollection of this condition afterwards. With the beginning of another pregnancy last year the attacks ceased again, and have only reappeared during the last few months. Three months ago a confused state of excitement set in, just like the present attack, but slighter, disappearing in three weeks. A few weeks after her last confinement the patient was again attacked by articular rheumatism with fever, which soon disappeared with appropriate treatment. The choreic movements, with bewilderment and mistaking of people, were noticed twelve days ago. They were only slight at first, with occasional improvements, but then grew worse and worse. Even on the patient's admission to the hospital, the disturbances were not nearly so pronounced as now. The pain in the joints had apparently ceased altogether then.

When we examine this history, it seems most probable, in view of the regular advance of the illness for years, of the nature of the attacks, especially their uniformity and the patient's biting her tongue, and, lastly, of the absence of other hysterical seizures, that our patient is suffering from *epilepsy*, and not from hysteria. In this case we should have to deal with real *chorea*, of which the articular rheumatism that has attacked the patient twice must be considered to be the cause. It is well known that chorea very often follows this illness. It is true that the first attack of

chorea preceded the last attack of articular rheumatism, but the *valvular heart disease* seems to be the connecting-link between the two affections, and may possibly have existed ever since the first attack of rheumatism.

As a matter of fact, the clinical picture our patient presents agrees completely with the mental disturbances observed in chorea. Senselessness and bewilderment with choreic movements, occasional hallucinations, a morbidly cheerful mood and great restlessness, with rapid physical sinking, are particularly diagnostic of this form of insanity. It is only remarkable that the psychical illness of eighteen months ago presented an entirely different picture. It will, of course, hardly be possible to form a reliable opinion now on the patient's condition at that time merely from the description given by her relations, yet all its features seem to me to show that it was simply one of epileptic semi-consciousness, having no immediate connection with the present illness.

If this be so, we will have to distinguish the epilepsy, with its special morbid symptoms, from the choreic insanity in its dependence on the articular rheumatism. The confinement, to which one might have been inclined to ascribe a leading part in the production of the mental disturbance, seems in reality to stand in no kind of causal relation to it. The case before us is thus a good example of the difference between *real* and *apparent causes*, the neglect of which has so often been fatal in psychiatry as well as in medicine. Reproduction in women certainly has an intimate causal relation to katatonia, although the actual point of attack of this subversive influence is quite unknown. Some such subtle connection is also very probable in the case of the delirium of collapse. But where mania or paralysis follows a confinement, we can at the most regard the physical injury as provoking a disease already latent in the patient. In the case before us even such a remote influence on the outbreak of insanity can hardly be established. I think that all these distinctions are clearly stamped on the clinical form of the mental disturbance. By careful attention to all the features of the disease, we can very well decide from the illness itself what part the work of reproduction has played in the chain of cause and effect.

If the patient does not succumb to exhaustion, choreic insanity usually takes a favourable course, and ends in complete

recovery.* In the case before us our task will be to keep the patient as quiet as possible, to feed her well, and to guard against infection. Presently we will try to combat the chorea itself by the administration of salipyrin. We are treating the patient with the prolonged bath, and try to give her as much fluid food as possible. The cellulitis will be treated in accordance with the ordinary principles of surgery.

* The patient recovered completely after the disturbance had lasted five weeks, but the attacks take place regularly, as before.

LECTURE XV

PARANOIA, OR PROGRESSIVE SYSTEMATIZED INSANITY

GENTLEMEN,—Among the symptoms of insanity, *delusions* and *hallucinations*, very often associated with each other, have in particular attracted attention, along with the fluctuations of mood. The different forms of delusion—the delusion of greatness and insignificance, the delusion of sin, the physical delusion of persecution, and so on—have often been considered as characteristics of distinct forms of disease. According to our present experience, conclusions as to the clinical meaning of a picture of disease from the existence and purport of the delusions are only permissible to a very limited extent. The tendencies of human fears and wishes can follow the same morbid ways in the most varied forms of insanity. But yet, the nature of the disease remains naturally not quite without influence upon the form of the delusion. In the following lectures we shall have, therefore, somewhat more minutely to observe some relations of this disturbance to definite forms of disease.

The stately gentleman, aged sixty-two, who presents himself before us with a certain courtly dignity, with his carefully-tended moustaches, his eye-glasses, and his well-fitting if perhaps somewhat shabby attire, gives quite the impression of a man of the world. He is somewhat testy at first because he has to allow himself to be questioned before the young gentlemen, but soon enters into a long, connected conversation in a quiet and positive manner. We learn from him that as a young man he went to America, and there went through many vicissitudes, finally settling in Quito, where as a merchant he made a small fortune. With this he returned home twenty-one years ago, but on the dissolving of his business connections he was done out of considerable sums. At home he lived at first on his money, spending

his time in amusements, reading the newspaper, playing billiards, going for walks, and sitting about in cafés. At the same time he occupied himself with all sorts of schemes from which he hoped for recognition and profit. Thus, he submitted to the leading Minister the plan (with a map) whereby Germany could lay claim to a lot of still unpossessed land, especially in Africa and New Guinea, and, above all, the islands of Galapagos, which the State of Ecuador would willingly hand over, and which would become of great importance after the finishing of the Panama Canal. A short time after that same Minister travelled to Berlin, and now began the German Colonial Policy, without, it must be confessed, due thanks falling to the lot of the real originator, which another nation would not have withheld. Then our patient drew up a plan for the cultivation of cinchona and cacao in our colonies; he also made several inventions for the better connection of railway-metals, by which the jolting, an important cause of derailment, would be done away with. Finally, he applied for a number of situations which seemed suited to him, including that of the consulship at Quito, but had always only failures to record.

As he considered it beneath his dignity to come down from his former greatness, he gradually used up his means; besides, according to his opinion, there was always something amiss with the administration of the same. However, on the whole, he did not trouble himself much about it, for he was convinced that a man of his capability and knowledge, who spoke three foreign languages and had been all over the world, had merely to stretch out his hand to find a satisfactory post, according to his pretensions. Nevertheless, he finally fell into embarrassment, for he could not recover his debts in America, so that he was no longer in a position to pay for his maintenance, but had to refer people to his prospective income, which assuredly could not fail still to come in. He was enticed into a district asylum, under the false pretext that he would be given a post, and there he assisted in the management till it became evident to him that they had no intention of paying him for his services. When, on that account, he tried hard for other situations, they sent him, also under false pretences, to the hospital, where he is now illegally detained. That, he concluded with bitterness, was the thanks which the Fatherland bestowed upon him for his services.

The patient gives all these detailed explanations in a perfectly

quiet and consecutive manner, and they agree in general with the actual occurrences. What strikes one at first is only an exalted self-esteem and the overrating of his own services and capabilities. It can be seen from the manner of this statement that the patient has not had much education. Further noteworthy is the matter-of-course way in which he assumes an inner connection between his interview with the Minister and the inauguration of the German Colonial Policy, as well as the confidence with which he has, in spite of every failure, lived recklessly and spent his means, and expects even now honour and profit from his activity. If one points out to him the contrariety between his hopes and the reality, he says, "A prophet is not without honour save in his own country"; he was much too clever for the gentlemen. But at last, with a contemptuous movement of the hands, he throws out the remark, "What do you wish?—the petticoat!" Upon closer questioning, he at first refuses to explain this remark, but then relates, little by little, that a woman whom he calls by the nickname of Bulldog, and who was the daughter of the English Consul at Quito, had persecuted him for twenty-three or twenty-four years with her plans of marriage, and sought in every way to cross his steps in order to reduce him to submission. Even in America things ultimately never went as he wished, and a hundred stuffed birds had, out of spite, been stolen from him by means of a skeleton key; everywhere he noticed the frauds of the Bulldog and her accomplices. "If people do everything differently from what I should have wished, there must be something more than meets the eye." The half-crazy American also travelled home after him, had insinuated herself into his neighbourhood, had the impudence to dress herself up in man's clothes, and to force marriage by preventing him from finding a post, and by these means brought him to want. This artful person had approached him under various names, though he had always told her that one did not win a man's love through such chicanery. He would perhaps be one of the richest men in California if the Bulldog had not prevented it. She was also to blame for his being brought to the asylum. "Who else, then, could it possibly be?" Both at home and abroad he was eternally meeting her. He had discovered holes in his boots and stains on his clothes, which could not possibly have been caused except through the Bulldog.

All objections that one raises to these ideas are received by the patient in a superior, incredulous manner, and glance off from his

steadfast conviction without leaving the slightest impression. One can see that he does not for a moment believe in the seriousness of our remonstrances, but his idea is that we wish to persuade him out of the matter, contrary to our real belief.

The most substantial mental disturbances to be perceived in our patient, whose comprehension, memory, and outward bearing allow of no sort of irregularity being recognised, are, on the one hand, his *ideas of grievances*, and on the other hand his strong *over-self-appreciation*. The first especially unquestionably wear the characteristics of *delusion*. They contradict every reasonable experience, are not at all accurately established by the patient, and yet are adhered to with the most extreme tenacity. As it would appear, they have already existed for over twenty years in approximately the same form, and have, in their turn, continually led to delusionary interpretations of the events of life. All small vexations, and, finally, his being brought to the asylum, are referred, not to the natural course of events, but to the deliberate dealings of a certain person and her accomplices. The patient has also, to a certain degree, formed for himself a *delusionary view of the world*, from which standpoint he works up new experiences. And so it is that the persecution becomes more and more fantastic. Ever-widening circles of his surroundings are to be found side by side with the Bulldog, and we too are on the point of sharing the fate of all who are obliged in any way to act in opposition to the wishes of the patient.

So far as can be ascertained, true hallucinations play no part, or only a very trifling one, in the development of the delusion. Certainly, on one occasion, as the patient was passing by a house, he observed that from behind the half-closed shutters a one-year conscript, with a gun, took aim at him. At the same moment someone called out, "Don't you see that someone is shooting at you?" After a second warning, when in stumbling he lost his hat, he noticed that a grazing shot scratched his left temple, so that blood flowed. Then he found the occupier of the house standing close to him with a knife in his hand, a lawyer who was ill-disposed towards him, and who called out that he wished to put his mark on him, as he had offended his wife. As the patient surmised, the man wanted quickly to replace by another the hat with the bullet-hole in it, and to cut to pieces the face of the corpse he expected to find beyond all recognition, in order to hide his guilt. How far illusions or delusionary inter-

pretations of harmless occurrences are involved in this narrative it is impossible to say. I might, however, at the same time remark that such experiences are sometimes entirely invented, though they seem to the patient to be real recollections. In any case, hallucinations are not otherwise to be established in our patient. His ideas of persecution are much more connected throughout with indifferent or ambiguous real events, to which he alone gives their special construction, such as the holes in his boots, his being brought to the asylum, and his unsuccessful applications.

In this delusionary working-up the considerable *weakness of judgment* of the patient becomes very apparent. Even if it is expressly pointed out to him, he does not grasp the absurdity of his notion that the daughter of the English Consul at Quito should for over twenty years, here in Germany, try in such extraordinary ways to gain his love, and that she should dress herself up in man's clothes, and obtain help from every possible human being. He answers these objections by observing that one does not know what such an artful woman will not contrive. We are met by the same want of judgment in his over-self-appreciation. In spite of every failure, he does not see that he must lower his pretensions. He demands high payment for his slow and purely mechanical occupation of copying or executing simple drawings. It can be seen, besides, that he is quite unable to execute works which require a certain originality, and when it comes to the point he admits at once that in copying he cannot keep the sense in his head. His conduct of life also, and the careless way in which he simply squandered his last farthing, are extremely significant of his incapability of grasping the true state of affairs, and of taking measures accordingly. We must add that he would not believe that his balance at the bank was exhausted, but was always demanding more money, lived on credit, holding out hopes to people of his prospective receipts, and finally he proposed to various fathers for the hands of their daughters in marriage, proceedings which gave the last stroke to his being taken to the district asylum, after having up to this point moved in his own circle without specially giving rise to suspicion.

It is upon this last experience that I would lay special stress. Striking disturbances in the emotional department of the patient, and especially in the department of the will, are wanting through-

out. There is at the most a certain touchiness to be alleged, which shows when he is contradicted as to the delusions, and particularly as to his exaggerated ideas of self-esteem. But otherwise the patient is in neither morbidly cheerful nor gloomy mood, nor is he emotionally dull or indifferent, but in a natural way takes interest in the events and persons of his surroundings, reads books and papers, occupies himself with drawings and sketches of his own accord, takes notice of his fellow-patients, follows the events of the day, chats with the doctors, makes new acquaintances, worries over disagreeables, and rejoices over appreciation. His outward bearing and behaviour are entirely unexceptionable and without remark, and are free from mannerisms, automatic obedience, and negativism. Where he acts senselessly, the explanation rests unquestionably in his delusions.

This distinctive disease, in which delusions of being wronged and of over-self-esteem develop quite slowly, without independent disturbances of emotional life or of the will becoming prominent, we shall call by the name of paranoia, or "mental derangement." In this disease there occurs regularly a mental working up of the delusion to form a delusionary view of the world—in fact, a "system." The disease leads to a "derangement" of the standpoint which the patient takes up towards the events of life. The malady always develops quite stealthily. First, suspicions begin to appear which gradually become certainties and steadfast convictions. The delusions become connected with real perceptions and occurrences, which are construed only in morbid and prejudiced ways; hallucinations never come under observation, or only quite occasionally; now and then, however, there is evidence of defects in memory. As the patients maintain their outward bearing, the malady, as a rule, is only recognised after many years' standing; hence the patients come seldom or late into the lunatic asylum, and mostly only for special reasons. They are generally in a condition without gross disturbances, and still able to engage in some profitable business. As the malady indicates a profound change in the mental personality, it is not accessible to cure.* It is much more usual after a number of years for a certain mental weakness gradually to develop out of it, as has become the case with our patient. The patients bear

* The patient has been for the last five years in a nursing asylum, without marked change in condition.

the asylum treatment badly, for they retain a lively sense of their independence, and take up the struggle for their freedom with the greatest vigour, if their energy does not finally flag with progressing mental weakness. Our patient also has sought to regain his freedom by numerous petitions, letters, and personal visits to the offices of newspaper editors.

The master-tailor, aged forty-two, whom I wish to show you as an example of another form of the disease described here, has had a still more obstinate struggle. Seven years ago he became insolvent, and at that time fought out fierce lawsuits with the attorney of a principal creditor. Later on he removed to another town, but could not get on there, and fell into debt. Four years ago he had to leave a house that by purchase passed into other hands. The new owner, as vindication of his claim for rent, wished to have part of the furniture brought back through the bailiff, but was met by violent opposition, the patient simply locking up the bailiff as well as his companion, in order that meanwhile he might be able to lodge a complaint in court himself. He was accused of false imprisonment, and punished.

A short, humorously-treated notice of this affair appeared in a daily paper, in which the incident was incorrectly described as "distrainment," and it was added that the accused had an intense hatred for the bailiff, who had been a frequent guest of his. Our patient was very angry about this statement, and sent in a correction, which was only printed in part, and consequently did not satisfy him. He wrote an enraged letter to the editor, which was answered by a report in full of the further course of the proceedings, which went up to the Supreme Court. That the title "master-tailor" was printed in large type put the patient into the greatest excitement, and caused him to bring an action in the first place against the editor for private insult, then an action for compensation on account of damage to credit, and, lastly, an announcement of punishment on account of gross misdemeanour.

All these complaints were rejected by the court on account of insufficient grounds. The patient did not rest satisfied with this judgment, but gradually set in motion every means imaginable in order to attain his end. First, he went through the usual stages of appeal, up to the Provisional Court of Appeal and the Supreme Court of the Empire; then came the complaint, the revision, the petition for appeal, the petition referred back to its

original position, further petitions to the Ministry of Justice, to the Ministry of State, to the Grand Duke, and to the Emperor, besides to the Court of Administration and to the legal Government official. Petitions were also planned to the Diet and to the Federal Council, and interpellation of the Chancellor of the Empire in the Reichstag was planned, because he was answerable for the execution of the law in the Empire. Lastly, on the refusal of the judges and courts of justice, the patient tried the experiment of complaints to the heads of the courts, and held out in prospect the proposal of disciplinary proceedings against the Public Prosecutor before the Grand Duke, as well as a piteous appeal to the public for the support of legitimate interests.

The innumerable petitions which the patient has drawn up in the course of the last few years, chiefly at night, according to his statement, are exceedingly long-winded, and always allege the same thing in a rather disconnected manner. In their form and mode of expression they incline to the legal document, beginning with "Concerning," going on throughout with "evidence," and concluding with "grounds." They abound in half or wholly misunderstood professional expressions and paragraphs of totally different laws. Often they are careless, and appear to have been written under excitement, contain numerous notes of exclamation and interrogation, even in the middle of a sentence; one or more underlinings, some in red or blue pencil; marginal notes and addenda, so that often every available space is made use of. Many of the petitions are written on the backs of judgments and refusals of other courts.

In consequence of this incessant pestering of the authorities, the patient was at last pronounced to be mentally deranged, but against this opinion he adopted every possible legal means of redress, and at the injunction of the Highest Court of Appeal will now once more and conclusively be passed judgment upon by us. He has meanwhile carried on his business even under great difficulties, and, apart from his petitions, has not become strange or troublesome.

If we now allow him to speak for himself, you will see that the patient is not only clear as to his position and gives a consecutive history of the events of the past, but is also able to express himself with great volubility and readiness for battle on the subject of his lawsuit. He does this evidently with a certain inward satisfaction. He is never at a loss for an answer to objec-

tions, but justifies his action by the quoting of ever-new minutiae, principles of jurisprudence, and law paragraphs. In prolonged conversation a wearisome diffuseness certainly appears in his narrative, and the inclination to jump from one line of thought to another, but always to return in the end to the same expressions and amplifications. It can be seen from this that the patient looks upon the plaintiff's attorney, who co-operated in his bankruptcy proceedings, as the real source of his misfortunes, although he has not come into contact with him for six years. But when he wished to bring an action against the editor of the newspaper, the clerk of the court, referring to that earlier lawsuit, at first dissuaded him from it.

By this it became clear to the patient that the attorney had prejudiced the clerk of the court against him, and furthermore sought to ruin him. All subsequent misfortune was only the result of this influence. The clerk did not draw up the accusation properly, so that it could not be carried through; the Public Prosecutorship got a wrong view of the matter from it, and the judges of the several law-courts, out of deference to their colleagues, did not wish to reverse verdicts once agreed to. They were as a body "prejudiced." His affairs, therefore, in this particularly exceptional case, had been obliged to be referred to another court. Thus had the course of law been "systematically obstructed" to him. The whole business was a "secret conspiracy"—"Freemasonry," for he assumes that his enemy had gone among the Freemasons. The whole body of Jewish financiers play a part in it, because the daily paper that wrote about him is, according to his opinion, supported by them. Also associated with the attorney are the "brigands of the press," the "Jewish sacrilege," the "subterfuges of the courts," the "violation of justice" by the attorneys appointed to him by the court, with whom he immediately fell out as soon as they did not follow his instructions, and, lastly, the incapability of his trustee, who throughout understood nothing of legal affairs.

The patient's idea of being wronged goes back to one solitary fixed source, but it has gradually involved and brought into connection with one another a whole series of persons who worked together, after a secret plan, for his ruin. This way of looking at things is everywhere supported on real occurrences, which are judged and interpreted by the patient alone in quite a one-sided manner. We see here plainly how that idea has developed to a

kind of *viewing of the world* which affects in the most influential way the working-up of the later experiences of his life. In addition to this, the patient is quite *impervious to reason*. It is quite impossible to get him to admit that he may perhaps have been mistaken in his interpretation of the occurrences. On the contrary, he at once becomes mistrustful if one urges him on this point; mere contradiction arouses in him the suspicion that we too are bent on supporting his opponents.

All these features, the connection of the ideas of being wronged with a common starting-point, the extension of these in ever-widening circles, and, lastly, the imperviousness to reason, show us that we have here to deal with a delusion which takes deep root in the mental personality and is worked out into a *system*. There obviously exists along with it a certain *weakness of understanding*, which shows itself in the monotony and aimlessness of his line of thought, as well as in his inaccessibility to the most obvious influences. His memory is generally correct, although, on closer examination, many of his assertions and wordy statements are found to be not quite reliable.

In the emotional province we notice first an increased self-confidence. The patient displays a certain superiority, likes to show off his legal knowledge, and, in spite of every failure, expects a happy ending to his affair. He has no hesitation whatever in again and again troubling the highest quarters with his petitions, for he looks upon his affair as one of quite special importance. As "a German and the father of a family," as "a man of business," he holds his "legal instinct" to be more authoritative than all the judgments of the courts. At the same time, he is exceedingly *touchy*, and answers each unfavourable verdict with the coarsest invectives, accuses the witnesses of perjury, the judges of corruptibility, speaks of "political-religious poisoning of wells," but says withal quite ingenuously that he always moves "within the bounds of propriety" himself.

But the most striking point is the *senseless action* of the patient during the last few years, by which he has brought himself and his family more and more deeply into misfortune. He recognises this, but lays the whole blame on his opponents and the courts, who had forced him into it, and from whom he demands ever-increasing amounts of damages. It remains incomprehensible to him that he would now do best to acquiesce, and to spend all his energy in gaining a livelihood. On the contrary, he is

already considering what way still remains open to him for making good his rights, should our verdict prove unfavourable to him also.

The picture of life that is in broad outline disclosed to you here is that of a *mentally-deranged, querulous person* (or chronic grumbler). In the main points the picture agrees entirely with that of the former patient—that is to say, in the slow development of a delusionary view of the world from the morbid working out of the experiences of life, in the moderate but always gradually progressing mental weakness, in the increased self-confidence, and, lastly, in the influencing of action by the delusion, with very trifling injury to memory, mental vivacity, and outward bearing. Also, the lengthy course, the insignificance of the changes which the condition undergoes in the course of many years, and the fundamental incurability, are common to both patients. Hence, we are justified in regarding the delusion of a querulous person as only a secondary form of *paranoia*. I should like at the same time briefly to remark that there are also querulous people who do not suffer from the delusion of a grumbler. Very perverse, quarrelsome, and also under some circumstances simply weak-minded people may bother the authorities in the same way as our patient. To make the diagnosis of querulous delusion absolute, there must always be accurate proof that there really is a delusion to be dealt with, and furthermore, that the idea of legal injury is connected with a *single fixed point of departure*, and has from that point made ever-widening circles. One can easily tell this, as in their petitions the patients always return to that starting-point. But finally there always belongs to the querulous delusion an entire imperviousness to reason—that is to say, the incapacity of appreciating the most obvious and most self-evident objections to their own interpretation. Only when all these symptoms are present shall we be justified in taking for granted the mental derangement discussed here, and only then will we venture to expect that the further course of the case will correspond with the examples of *paranoia* with which you have here been made acquainted.

LECTURE XVI

PARANOIDAL FORMS OF DEMENTIA PRÆCOX

GENTLEMEN,—The merchant, aged twenty-five, whom you see before you to-day, has made himself conspicuous by putting leaves and ferns into his buttonhole. He takes a seat with a certain amount of ceremony, and gives positive, concise, and generally relevant answers to our questions. We learn that he was admitted to the hospital a year ago, that he afterwards spent six weeks at home, and that he has now been here again for six months. The patient makes no explicit statements about the nature of the disturbances which appeared, but he admits, when he is asked about it, that he did not speak for some time, he does not know why. But he remembers most of the details of what he has been through. Although he knows where he is, he mistakes the people about him, calls us by wrong names, and takes us for merchants. While he is more or less indifferent at first, taking very little interest in us and looking round with a conceited expression, he gradually becomes rather excited, grows rude, irritable, and threatening, and breaks out into an incoherent flood of words, in which there is a quite senseless play on syllables —“ Macbeth—mach'ins Bett,” “ Irr ich mich nicht—Klinik,” “ je suis—Jesus,” and so on.

At the same time, the patient intimates that he is the German Emperor, and that the Grand Duke is his father-in-law; he has been promised the Grand Duke's daughter since 1871. He is studying astronomy here. He denies that he has hallucinations. He declines to obey orders, but after some persuasion he finally stretches out his hand stiffly to shake hands. The patient is divertible; he often breaks off in his talk, and he intersperses it with curious snorting noises. His mood is changeable, but on the whole very much exalted. Often, more especially when he makes

his jesting play on words, the patient bursts into a tittering laugh. His behaviour shows no marked excitement. His deportment is pompous and affected.

The diagnosis will have to rest principally on the peculiar aberrations in the patient's actions—the *mannerisms*, the *play on words*, the signs of *negativism*, and also on his *emotional indifference*, while he is yet quite collected. The patient does not consider himself ill, but stays here without making any resistance, does not worry at all, forms no plans for the future, and expresses no desires. We know this picture well already as a form in which *dementia præcox* appears. What seems strange about the condition is the absence of strong excitement on the one hand, and on the other the delusionary mistaking of people and the ideas of grandeur quite quietly expressed. But you will see at once, when we follow out the development of the case, that these deviations from the appearances discussed in an earlier lecture do not essentially affect the clinical interpretation of the patient's condition.

The patient is said to belong to a healthy family. He was clever at school, was always serious and conscientious, and served as a one-year's conscript. So far back as three years ago he complained of being shaky and excited, and no longer able to work as he had once done. Then, after he had been particularly active and enterprising for some time, marked depression of spirits set in fifteen months ago. The patient became sleepless, and complained of pains in the back of his head. He felt stupid and unfit for work, took no pleasure in his business, played apathetically with his fingers, lay in bed all day, and thought that he had abused his principal's confidence and embezzled. In this way he came to the hospital. Here he showed a striking conjunction of emotional dulness with good comprehension and perfect lucidity. Very soon he sank into a stupor, became dumb, showed signs of automatic obedience alternating with negativism, and masturbated very much. He was afraid that the French were coming, and that the knife would be whetted and people made away with, heard threatening voices, felt electricity in bed, wished to die, and ate hardly anything. He was perfectly indifferent when he was visited. It was only quite slowly that he became a little more active, got out of bed, and followed the doctor in his shirt, without speaking, or at the most murmured in a low tone to himself, or occasionally uttered irrelevant ex-

pressions, as to the meaning of which nothing could be learned from him.

In this condition he was taken home by his relations. There, too, he was almost dumb, and ate little, but jumped into a carriage one day, saying, "I drive a cab." He drove a little way, got out, and remained standing on the same spot for an hour and a quarter. During the next few days he suddenly became excited, clapped his hands, stamped with his feet, threw himself about, spoke quite incoherently in a loud voice about princesses, the Grand Duke, pardon, beheading, and the like, and laughed a great deal to himself. As he then became violent and broke windows, he was brought back to the hospital. Here he was very irritable and disobliging, gave senseless, irrelevant answers to questions, expressed disconnected ideas of grandeur, mistook people, and spoke and behaved affectedly. In speech and writing he plainly showed confusion of speech with playing on words. Thus he wrote in a letter, " $2 \times 4 = 8$, that is the day of the Lord come to pass; good mine to bad man is bad; bad wicked mine d'or to good man better as first recovery; I B flat in A—Saucier, you got—Minister—Mercier." When shown a knife, he answered, "Knife, razor, Barber of Bagdad, Salem aleikum." On seeing a gold piece, "Louis d'or, Napoleon, Empress Eugénie, la France, Spain, thither will we go." He often spoke out of the window, and said he was talking to spirits or acting a play. His sleep was very much disturbed. The physical examination showed no abnormalities worth noticing, but great dermatography and mechanical excitability of the facials. His weight had increased considerably.

The patient was originally supposed to be suffering from maniacal-depressive insanity. His previous history and the alternation of excited and depressed moods seemed greatly to favour this view. But in the further course of the case *katatonic* symptoms came out prominently during both the stuporose and the excited periods—negativism, mannerisms, automatic obedience, and confusion of speech. The diagnosis we derived from the clinical condition is thus fully confirmed by the whole development of the disease until now. It is true that divertibility and quibbling, as we see them here, are generally considered to be symptoms of mania. I may, however, point out that in maniacal cases it is only in the very worst states of excitement that the incoherence reaches as high a degree as it did here, where

rationality was fully maintained and the excitement was comparatively slight. Under these circumstances, we must certainly adhere to the diagnosis of katatonia, and may therefore suppose that considerable improvement in the patient's condition is still possible, but that even in the most favourable event a certain degree of dulness and want of freedom will probably remain in the spheres of emotion and action.*

At first sight, the mechanic, aged forty-three, who takes his place before us now, seems to present much the same features as the last patient. He is slightly built, shows a certain formal politeness, and answers all our questions about his personal circumstances quickly and correctly. He is clear about time, knows where he is, knows the doctor, does sums quite well, and possesses a fair amount of general knowledge. His mood is conceited, and a superior smile plays over his features. When asked what he is doing here, he suddenly comes out with a whole flood of the most fantastic ideas, which he utters with great fluency, paying absolutely no attention to objections. He has been brought here to have his mental condition observed, through the Black League. He is not ill, though potash, arsenic, prussic acid, sulphuric acid, and other poisons have been put into his food. He has been put under excommunication, inflicted by means of a mirror. In this mirror the spirit appears, through which men may communicate with spirits. There is such a mirror in every house where there is a member of the Black League; even priests have it in the monstrance. The members of the League devour the born and unborn fruit of the womb, and make offerings of blood. "With these gifts, they inflict the excommunication, under the simultaneous stipulation if what they seek by their offerings is not granted, they stake their personal freedom. By offerings of dead life, it is understood that one is declared to be dead, but is not dead. Man need not die at all; there are thousands who are only said to be dead, but are still alive and devour human flesh." "There are women, particularly Jesuits, who even sit on thrones, who are territorial princes, and others who are in high positions in the Government—Ministers, for instance. They make the sacrifice

* When the patient had been eight months in the asylum, we were able to discharge him substantially improved. He was not very accessible, but fairly intelligent and free from delusions. Now, two years later, he is actively engaged in his business. The delusions may disappear completely.

of uncleanness, and let themselves be defiled by beasts, even in church. There are even beasts which take the form of men. The worst of this evil dates from Chamisso ; that is seen in the very name, ' Shame-is-so '!"

He goes on in this confused way. Whatever subject is mentioned he immediately tacks on his monstrous delusions. Napoleon was used for uncleanness by Catherine I. in Russia. He got the testicles and penis of new-born children to eat, and so was turned into a hermaphrodite who could let himself be used by men, brought down misfortune on his head, and is now inspector of a penitentiary. He has been given sweat-powder and cats' dung himself in his food, and has had his heart, liver, lungs, and testicles taken out. Parson Kneipp is enthroned as Germania on the Niederwald Monument ; Germania has a brother in the High Street at Freiburg. " That is the real ' Heit,' which is derived from heathendom [heidenthum] ; he calls that truth [wahrheit] ; he is not a real heathen at all."

All these things are very fluently alleged by the patient as quiet self-evident matters of fact. When cross-questioned, he goes into details at once, explaining his statements with more and more monstrous assertions. But as soon as he sees that his word is doubted he becomes extremely irritated, and breaks out into a flood of abuse, saying that his questioner is also one of the hired assassins and a swindler and a hermaphrodite, and he can only be quieted with difficulty. Echolalia, echopraxis, and catalepsy exist in the patient. The knee-jerks are much exaggerated, and the outspread fingers tremble, but no other physical disturbances can be made out.

The clinical interpretation of this highly fantastic condition presents some difficulty at first. However, the senselessness and incoherence of the delusions, expressed with a complete absence of emotion, show that we have to deal with a state of mental *weakness*. The automatic obedience, the confusion and indecency of the patient's talk, and the quite senseless playing with assonances, remind us of what we have observed before in cases of *dementia præcox*. We also met with entirely similar disturbances in our last patient.

If we look back to the development of the illness, we find that a sister of the patient was idiotic, and that he led a frivolous life himself, separated from his wife, entered into brief relations with other women, and served several terms of penal servitude for

theft, forgery, and fraud. The first traces of disease appeared in the convict prison four years ago, in the form of hallucinations of hearing. The patient heard himself admired by his fellow-convicts for his blooming appearance, or threatened with arrest. The inspectors whispered, "Be quiet; there he goes; he has heard again. Good God! what ears the fellow has!" People called out his first name and talked about him. Then hallucinations of taste appeared, and he mistook people, and only six months later more and more senseless ideas of grandeur and persecution gradually developed. These often changed and assumed new features, but gradually they took the forms still existing, while the earlier ideas disappeared. States of lively excitement, with a tendency to violence, were repeatedly observed.

The patient has been in the hospital for three months. He generally keeps quite quiet, associates little with the other patients, does not occupy himself, lives for the day alone, is in a cheerful mood, says he is comfortable, greets the doctors in a rather formal way, and expresses no delusions of his own accord. But as soon as you get into conversation with him you find yourself under a shower of delusionary talk, consistent only in the main features. The patient gets increasingly excited, and more and more incoherent and irritated, but is friendly again next time he meets you, however abusive and threatening he may have been. He speaks in affected High German.

The beginning of this course of disease, with the rather quickly-developed hallucinations, would agree quite well with our previous observations in cases of dementia præcox. But we have never yet met with the luxuriant production of such extraordinary and constantly-changing delusions. For this reason the case before us bears a quite peculiar stamp, which formerly induced me to set this group of observations to a certain extent apart, under the name of "Dementia Paranoides." I think I may say from my experience that such cases usually present almost exactly the same features for dozens of years, and neither recover nor become more mentally dull.* The delusions remain permanently active, and new and extraordinary forms are always succeeding one another. At the same time, there are hallucinations of hearing and often of sight also, and particularly a most remarkable change in the physical condition and the course of thought. In the sphere of the emotions,

* The patient has been in a nursing asylum for some months unchanged.

irritability may be observed, with complete indifference to the natural relations of life. Patients have a tendency to outbursts of loquacity, without feeling the need of occupation or purposeful striving for the improvement of their position, and without any thought for the future.

This *emotional enfeeblement*, in conjunction with the symptoms previously described, leads us to assume that this condition may be closely allied to dementia præcox, in spite of many individual points of difference. Up to the present, I have not been able to discover any sharp division between the two clinical conditions ; indeed, there seem to be many transitional forms. If we bear in mind that in dementia præcox and maniacal-depressive insanity delusions in particular may either be wholly absent or may take on the most various forms of development, we will hardly have sufficient reason, considering the similarity of the disturbances in feeling and action, fundamentally to separate the forms described here from the various other forms of dementia præcox.

The question is rather more difficult in another fairly large group of cases. The widow, aged thirty-five, whom I will now bring before you, may serve as an example of these. The patient gives full information about her life in answer to our questions, knows where she is, can tell the date and the year, and gives proof of satisfactory school knowledge. It is noteworthy that she does not look at her questioner, and speaks in a low and peculiar, sugary, affected tone. When you touch on her illness, she is reserved at first, and says that she is quite well, but she soon begins to express a number of remarkable *ideas of persecution*. For many years she has heard voices, which insult her and cast suspicion on her chastity. They mention a number of names she knows, and tell her she will be stripped and abused. The voices are very distinct, and, in her opinion, they must be carried by a telescope or a machine from her home. Her thoughts are dictated to her ; she is obliged to think them, and hears them repeated after her. She is interrupted in her work, and has all kinds of uncomfortable sensations in her body, to which something is "done." In particular, her "mother parts" are turned inside out, and people send a pain through her back, lay ice-water on her heart, squeeze her neck, injure her spine, and violate her. There are also hallucinations of sight—black figures and the altered appearance of people—but these are far

less frequent. She cannot exactly say who carries on all the influencing, or for what object it is done. Sometimes it is the people from her home, and sometimes the doctors of an asylum where she was before who have taken something out of her body.

The patient makes these extraordinary complaints without showing much emotion. She cries a little, but then describes her morbid experiences again with secret satisfaction and even with an erotic bias. She demands her discharge, but is easily consoled, and does not trouble at all about her position and her future. Her use of numerous strained and hardly intelligible phrases is very striking. She is ill-treated "flail-wise," "utterance-wise," "terror-wise"; she is "a picture of misery in angel's form," and "a defrauded mamma and housewife of sense of order." They have "altered her form of emotion." She is "persecuted by a secret insect from the District Office." She gives her hand in a spread-out way, and is cataleptic and echopractic. There are no indications of physical disturbances of any clinical importance.

The symptoms last mentioned will suggest the idea that the case belongs to the group constituted by the forms of dementia præcox. But the long and unvarying persistence of the same delusions is very much opposed to what has been described hitherto. The patient's father was rather excitable, and a brother had convulsions as a child. Her former history shows that she has been ill for nearly ten years. The disease developed gradually. About a year after the death of her husband, by whom she has two children, she became apprehensive, slept badly, heard loud talking in her room at night, and thought that she was being robbed of her means and persecuted by people from Frankfort, where she had formerly lived. Four years ago she spent a year in an asylum. She thought she found the "Frankforters" there, noticed poison in the food, heard voices, and felt influences. After her discharge she brought accusations against the doctors of having mutilated her while she was there. She now thought them to be her persecutors, and openly abused the public authorities for failing to protect her, so she had to be admitted to this hospital two months ago. Here she made the same complaints day after day, without showing much excitement, and wrote long-winded letters full of senseless and unvarying abuse about the persecution from which she suffered, to her relations, the asylum doctors, and the authorities. She did not occupy herself in any way, held no

intercourse with her fellow-patients, and avoided every attempt to influence her.

Cases of this kind are very common. As a rule, the permanent delusions are thought to be of the greatest importance in their clinical interpretation, and for that reason they are generally classed under the head of Paranoia. To me, however, the patient's *peculiar feeble-mindedness*, which corresponds exactly to what is seen in dementia præcox, seems to be decisive of the diagnosis. The emotional dulness and loss of mental activity, the signs of automatic obedience and negativism, the mannerisms in the patient's behaviour, and the affected turns of speech, are symptoms with which we are well acquainted in that disease. There, too, we so often meet with the obstinate delusions of hearing, and even more with the delusion of influences on the body and on thought, that we can only look on the greater development of these disturbances here as a matter of degree, and not as an essential deviation from the ordinary features of dementia præcox.

The condition before us differs from paranoia in some very essential respects. The delusions are quite without sense from first to last, and are not worked out in the mind. The patient feels no need at all to raise objections and refute them, or to get a clear idea of the personality, motives, and procedure of her persecutors. Important details such as their personality are altered by her quite unconsciously. There is a transformation of the delusions, but no extension of them, and they do not develop into a completed view of the world, but remain fantastic and only loosely coherent fancies. Here hallucinations of the most different kinds play a predominant part all the time, while in paranoia we saw that the delusions were almost exclusively connected with real experiences mistakenly worked out. Lastly, as years go on, the purport of the delusions loses its influence on action fairly quickly, and the patients become dull and indifferent.* Very often the delusions are simply forgotten. The final condition may then be simple feeble-mindedness, which we see in other cases also as the outcome of dementia præcox. This result is never seen in real paranoia. It is from observations of this kind, more especially, that I am convinced that even those forms of feeble-mindedness which take their course with permanent delusions must not be called paranoia, but are more correctly to be brought under the head of dementia præcox.

* The patient has been nine months in a nursing asylum unchanged.

LECTURE XVII

DIFFERENT FORMS OF DELUSIONS

GENTLEMEN,—As we are continuing our discussion of the clinical and diagnostic meaning of delusions to-day, I will first show you a locksmith of forty-seven, who has been in the hospital for four months. The patient is collected, and has correct ideas of his surroundings, and very nearly so of time. He declares that five years ago, after influenza, he fell ill of pains in his loins and spasms round about his body. The nerves were so strained that he could not walk properly. Besides this, he suffered from constipation, and his water stopped once or twice. He is not insane, only “rather crazy-headed.” He would like to be separated from his wife, as he cannot put up with her any longer. Since he has not been able to work he has become a burden to her, and then he heard how she said that he was a scamp, and she would rather have no husband at all. She has sold or pawned everything, and talked about him to the landlord, and said, “We could have had him taken away before this.” Now he wants to marry again a pretty young girl; when he can walk better again, he will earn enough to be able to carry that out. He has been persecuted for a long time to get rid of him. People spoke about him in the yard—“Yesterday evening would have been the time; he could have been got rid of then.” He has not been able to understand it all, but he has seen and noticed that he was influenced with an apparatus. That happened through his wife. It came from underneath, apparently with electricity, as if looking-glasses were moved about in front of his eyes. An impression has been made on his body with the apparatus, in his head, and on his hearing, so that there was a buzzing and whistling in his head. When he gets up, he feels the apparatus behind on his back, but he cannot see it. The patient’s mood is indifferent, on the whole,

but often rather irritated. He thinks he has not the right nursing, that the food is bad, and that he could work again quite well. He is bitter against his wife, because she had him taken to the lunatic asylum ; but on persuasion he soon declares that he is ready to make it up with her again. He does sums fairly quickly and correctly, and his general knowledge corresponds to his position.

The ideas of persecution expressed by the patient may perhaps remind us at first of those we know in dementia præcox. There, too, we very frequently meet with the delusion of being physically influenced. On the other hand, the expressions the patient thought he heard are like those of alcoholic insanity. The ideas of jealousy, as we will see better later on, would confirm the alcoholic origin of the illness. It is true that the patient altogether denies having drunk, and he is so poor in ideas and weak of judgment that there cannot well be any question of simple alcoholic derangement. But the supposition of dementia præcox, which is improbable, if only on account of the patient's age, is quite contradicted as soon as we examine his physical condition more closely. We discover disablement of the abducens on the left side, myosis, and inequality and reflex sluggishness of the pupils, while the accommodative reaction is still poorly maintained. The left labio-nasal fold is effaced, the tongue is put out jerkily, the knee-jerks are lost, the gait is very uncertain and ataxic, and there is strong swaying when the patient stands with his eyes shut. Sensibility to pain is reduced, and the faculty of localization is bad. Speech is indistinct and slurring.

These symptoms make it clear at once that we have to deal with *general paralysis*, accompanied in this case by delusions associated with hallucinations, and of quite a different kind from those we have already seen in this disease. You may look, if you like, for the cause of this peculiar variation in the greater participation of the sensory centres in the morbid processes ; at least, the view has been expressed that the paresthesia and sensations of pain in disease of the spinal cord may be the foundation of the delusions of physical influencing. The idea of being dazzled may be due to morbid lightning sensations in the optic nerves, which are often affected in the forms of paralysis accompanied by symptoms of tabes. In our present case, unfortunately, incipient atrophy of the optic nerves could neither be proved nor disproved, as the incidental presence of opaque

nerve-fibres made an exact diagnosis impossible. The slight disturbance of the patient's memory and his good arithmetical powers are remarkable, as it is in this direction that the first pronounced morbid symptoms usually appear. This experience, like so many others, shows that we should never rely too much, in making a diagnosis, on the presence or absence of any one symptom, but must always keep the general picture before our eyes.

In the previous history of the case we must notice that the patient is said to belong to a healthy family, and to have led a well-regulated life, free from dissipation. He admits that he had gonorrhœa twenty years ago, but denies all idea of luetic infection. There are two healthy children of his marriage. For five years the symptoms of tabes have gradually developed, particularly girdle sensation, ataxia, disturbances of the bladder and rectum, and impotence. Six months ago he began to grow excited, both sexually and otherwise, drank more than he had been accustomed to, and so became still more irritable, and thought that people persecuted him and wished to poison him, and that they wasted his money. Finally, he fled from his house, taking his papers with him. He applied for a divorce at once, and was then taken to the infirmary, where he slept very little, abused his wife, tore things, and was dirty. Thence he was brought to the hospital, and soon grew quiet, though he held fast to the old delusions, which he has just repeated before you now. Once a state of collapse was observed, with giddiness, pallor, and a very small pulse, which should probably be regarded as a slight paralytic attack. His weight increased at first, but is now gradually diminishing.*

That the appearance of tabes should precede the development of the paralytic picture of disease by a considerable time, even by many years, is not at all unusual. This form of paralysis is generally called *ascending* or *tabic paralysis*. Whether the idea lying at the bottom of this name, that the disease, to a certain extent, *ascends* from the spinal cord to the brain, is correct or not seems rather doubtful. We are not even sure, as yet, that the tabes, which ends in paralytic disturbances, is essentially the same as the usual form of wasting of the spinal cord. As paralysis is regularly connected with changes in the spinal cord, sometimes spreading more in the posterior and sometimes more

* The patient died six years after the tabes began.

in the lateral columns, paralytic disease of the posterior column might very well produce the clinical symptoms of tabes without the course of the disease being the same in both cases. In the clinical aspect it has struck me that in ascending paralysis the tabic symptoms are usually practically confined to the absence of sinew reflexes, myosis, reflex sluggishness of the pupils, and atrophy of the optic discs, while the rest of the disturbances, particularly the severe ataxia of the legs and the swaying, are either entirely wanting, or are far less developed than in ordinary tabes. But there is undoubtedly a very near kinship between tabes and general paralysis, especially in their relation to syphilis as a cause, and also in respect of the inefficacy of anti-luetic treatment. Our patient was formerly treated with mercurial ointment and iodide of potassium, without their arresting the disease or preventing the subsequent development of the signs of paralysis.

We meet with delusions quite similar to those of the last patient in the farmer of sixty-five who came to us a year ago as an out-patient, but afterwards had to be brought into the hospital. He came here, for the first time, to look at electrical apparatus, after having visited an optician for the same purpose. This perfectly-collected and well-ordered patient can inform you of his motives himself. Indeed, he feels a necessity of expressing his ideas, and tells us that he has been persecuted for a year and a half by his neighbours, particularly by a shoemaker. His enemies have possession of apparatus with which they can influence him in the most diverse ways. First he heard people talking about him, speaking evil of him, as if he had stolen, destroyed trees, and committed forgery. He recognised the voices plainly, and called the people to account, but they pretended not to know anything about it. It must be done with the telephone. His thoughts were "construed," too—"What I have thought, the others have said."

Further, they threw black powder like chloroform at him by electricity; it got into his mouth at night, and then it was like fire in his body. They threw the powder on the trees, too, so that the leaves withered; he sent them to be examined, and the answer came back that it might be mildew. But the worst of all is the electric current they set at him with the machines; it goes into his ear, his belly, and his sexual parts; then it begins to twitch and burn, so that suddenly it almost throws him to the

ground. Fiery rays shoot at him as he lies in bed, so that he thinks he is on fire. That is done with the treadle-machine the shoemaker has; they also have horns $1\frac{1}{2}$ feet long, like horns you blow on, and little things they can hide in their trouser-pockets. They set up steel posts, so that they can throw the current right into his bedroom, they are such experts. They have come into his house at night with the electric key and stunned him and hit him on the mouth. There was a stink, like burned leather or bones, left in the house. There was a stink of soap-boiling and phosphorus in the food. His head was often drawn together and his face pressed in, or he was hit in the side or on the belly, so that it hurt, and grew fatter, and was blown out, as it were, till the wind went away. The optician showed him a round glass thing with little tubes to it, but said the machine his enemies had must be bigger. A policeman who came round said that shoemakers had that. Then he ordered a price-list from a manufactory of electrical apparatus, to see what the machines were like. He looked through the advertisements in the newspapers, as similar apparatus were advertised there. In the current is the "sin-prognosis"; "that is just like outside at the telegraph; everything that happens is announced there."

The patient first called on the Burgomaster to help him against this persecution, and then applied in person and by letter to the district office, but they did not help him, and he soon discovered that the gentleman supported the shoemaker. He therefore tried to help himself, and placed the hot-water bottle on his head. He heard the ticking of the current in it, but could sleep, particularly when he added a piece of iron. In the hospital, too, he asks for some pieces of tin, so as to be able to insulate himself on all sides. He would like still better to have a close-shut room, with thick walls that no rays could penetrate. He still keeps on writing addresses to the authorities, begging for protection, and intends to appeal even to the Ministry.

The patient relates all this in a perfectly quiet tone. He is absolutely convinced of the correctness of his ideas, and is determined not to be misled by objections. He hardly listens to them, and takes no trouble to refute them, but sometimes grows angry, and says that we are helping in it too, since we shut him up, and keep him back in an unjust way, and he therefore urgently demands his discharge. You can converse with him quite well about things remote from this, but he very soon returns to the

subject of his persecution. His knowledge is fully commensurate with his position, and he also shows a certain degree of mental activity. He reads, occupies himself, talks to his fellow-patients, and plays cards, and his behaviour is in no way remarkable, apart from his measures of defence against the "rays." As he hears the shoemaker speak about him even here, and can get no sleep because of him, he tries to protect his head from the rays with little walls of bedding and any other articles he can obtain. A certain exalted self-esteem is to be noticed in his satisfaction that he is cunning enough to see through all his enemies' tricks, and does not allow himself to be hoaxed.

As regards the previous history of the case, we must add that the patient comes of a healthy family, and was a temperate and industrious workman. He is married, and has five healthy children. The disease began eighteen months ago with ideas of persecution and hallucinations; at times the patient also expressed ideas of grandeur, saying that he would introduce a new religion, and improve agriculture all over the world. In the destruction of his person, the ruin of all mankind was aimed at, but he would make his persecutors harmless with an air-gun and a special kind of powder. The patient now professes to know nothing about these delusions.

The interpretation of this picture of disease involves great difficulties. Such conditions are generally regarded simply as paranoia. It seems to me, however, that the sudden onset of the illness, the rapid development of a high degree of mental weakness and the predominance of vivid hallucinations of all the senses contradict this assumption. Besides, the delusions are not at all constant in detail, but often change. In this, and by their purport, they remind one very much of what is seen in dementia præcox. On the other hand, all the characteristic symptoms elsewhere known to us in that disease are absent here. Loss of mental activity, negativism, automatic obedience, stereotypism and mannerisms are wholly wanting.

On this account, and also in consideration of the patient's advanced age, we cannot decide simply to regard this case as one of dementia præcox. Indeed, it will for the present be most in accordance with the facts to say that in advanced old age there is a picture of disease, "senile delusion of persecution," which has for its essential feature the appearance of fantastic ideas of persecution, with hallucinations and obvious mental

weakness. In practice such cases are far from rare. The ideas of being wronged often take the form of delusions of jealousy. Commonly, the patient's condition remains unaltered for years, while the delusions continue, though their purport changes. In the further course of the illness senseless ideas of grandeur are usually associated with the ideas of being wronged. Some degree of reason is generally maintained to the end, yet the patients do not recover, but gradually become more feeble-minded and more flighty.*

Lastly, a very peculiar form of the ideas of persecution is presented by an officer, aged forty-two, whose illness is very interesting in many ways. The patient is perfectly collected, correct in his ideas of his position, and orderly. Neither in his mood nor in his intelligent and amiable behaviour does he show the least sign of derangement. He feels well and fit for work, has no complaint to make, and simply begs in a quiet and polite way to be allowed to return soon to his home and his duty. Only after a long conversation do we notice a certain want of clearness about his experiences in the last few years. It is true that he makes various statements about them, but these sound quite fantastic, and are often contradictory.

The patient relates how he lived in the hotel at a watering-place, together with a member of the swell mob, who was introduced to him under an assumed name, broke into his room at night, and is now kept in a lunatic asylum, from which he will be discharged again as sane. This man has already been condemned in a trial which you might have read about in the papers a little while ago. The patient himself thinks that his detention in the hospital must be connected with this affair. Ladies of high position are involved. On objections being made throwing doubt on this, he holds fast to his statements with complete conviction, and continually produces fresh details to establish the truth of his representations.

From this it may be recognised that we have to deal with a peculiar disturbance, which is usually called *falsification of memory*. All kinds of pictures spring up before the patient, which in his eyes fully bear the stamp of genuine recollections, although there is absolutely no original corresponding to them in the past. These imaginary recollections evidently have produced

* The patient has now been eighteen months in a nursing asylum unchanged.

vivid impressions, for the patient describes all the details of such experiences with the words, "I still remember quite well," just as we would reproduce an event which has happened a few days ago with the words which were spoken then, the people who were present, and also quite unimportant accessories, which increase the certainty of the other statements. The more you talk to him about it, the more circumstantial does his story become, as new details keep on occurring to him. It is significant that he acknowledges himself that he had "never given another thought" to the whole affair, until it suddenly occurred to him. Thus he remembers falsely that a decree of divorce, already subscribed by several judges whom he names, was laid before him for his signature. Particular people named were present as witnesses. At the same time, he was pledged to break off all communications by letter with his wife, and this he actually did for some time, on the grounds of this false recollection, and without any other cause.

If the patient is led to talk about his past life, he relates, with the fullest conviction, a series of highly remarkable experiences—attacks which were made on him, little acts of heroism, and extraordinary occurrences, which have all arisen in the course of the falsification of memory. It is therefore quite impossible to get anything like a correct picture of his actual life from his descriptions. Besides, these accounts are anything but uniform; they are subject to frequent changes, and new features keep on springing up, while others fade and disappear. Not unfrequently their connection with particular external associations can be recognised. Thus, the introduction of a new doctor very soon awakened the recollection in the patient that he had met him before somewhere, that his parents had lived years before in his own neighbourhood, and so on.

It is quite comprehensible that actual recollections should be very indistinct and weak in this severe disturbance. In the case of this patient it is easy to satisfy one's self that after only a few hours the purport of a conversation is quite forgotten. Hence he often relates or writes the same thing many times, because he does not remember that he has done so before. Explanations remain in his mind only a very short time. When the doctor comes to see him, the patient forgets altogether that he has sent for him himself, to ask for his discharge. He forgets where he went for a walk or a drive yesterday, if he has washed himself, how much he has smoked, and if he has slept and eaten

well or badly, and on that account he sometimes repeats matters of daily routine several times. From special experiments made for the purpose, it appeared that after only half an hour he could not repeat more than a quarter of certain words of which he had been asked to take particular notice, while sane people of the same degree of education hardly forget a single word in that time.

On the other hand, false recollections remain with him just as distinctly, and perhaps even more so, than true ones. Thus, the patient lay in bed in the morning for some little time, declaring that this had been prescribed by the doctor. All such falsifications of memory bear for him the stamp of the most complete certainty. He grows distrustful if you try to persuade him out of them, and suspects secret motives in the background, the comprehension of which is soon laid open to him by new falsifications of memory. The delusions, however, govern the patient only temporarily, and are then superseded. They do not unite to form a view of the world. The patient always remains polite and amiable to the doctors, although he considers himself perfectly sane, and cannot understand why he is not discharged.

The physical examination gives us the key to this very strange picture of disease. It is found that the muscles of the arms and legs are extremely flabby and feeble, yet the electric test gives no reaction of degeneration. On the other hand, the muscles show an unusually high mechanical excitability. All the nerves are *very sensitive* to pressure on the accessible points. The knee-reflexes are lost. On standing with the eyes shut, there is evident swaying, and also on quickly turning round. The outspread fingers tremble strongly. No other disturbances worth noticing can be pointed out, and in particular there are none in the pupils, or in speech or writing. This result of the examination shows that *polyneuritis* must have existed here.

Now, we have learned from *Korssakoff* that psychological disturbances are observed in this disease which are principally distinguished by the appearance of highly-developed *falsification of memory*. As a matter of fact, the previous history of the case shows that we have to deal with a *polyneuritic mental disturbance* here. The patient, who was originally mentally well endowed, though perhaps there was a slight heredity on his father's side, had an attack of inflammation of the lungs ten years ago, and made a very slow recovery. During his convalescence he became accustomed to considerable indulgence

in alcohol, and afterwards he suffered from polyneuritis. Apparently there was also syphilis, of which the indications were removed by treatment with iodide of potassium. The neuritic disturbances fluctuated at first, but gradually became more severe with the patient's increasingly intemperate habits, and often interfered with his work. Very soon after the illness began a slight weakness of judgment became obvious, inasmuch as he did not realize the significance of his condition. In the last few years feebleness of will and forgetfulness also appeared. He was incapable of abstaining from alcohol, and apparently did not know how much he drank. Three years ago a delirious condition was transitorily developed. After abstention from alcohol for any length of time, all the symptoms quickly improved till only a certain residue remained, but they returned with still greater force when the patient was left more to himself and drank again. For several years the falsification of memory became more and more evident, at first in the combination of truth and falsehood, and then in pure invention. The development of delusions, as the result of the falsification of memory, finally led to the patient's being brought to our hospital.

You will see that the way in which the delusions arose and their clinical meaning are both quite different from those we have observed in any of the cases considered hitherto. This, too, may warn you against overestimating the diagnostic value of this symptom. But it must be recognised that the particular clinical form of the delusions, though not their existence in themselves, may perhaps make it possible to decide as to the nature of the case. If our patient's perfectly orderly behaviour and faultless bearing remind us of paranoia, this suggestion is soon disproved by the instability and vagueness of the delusions, which have very little influence on the patient's relations to his surroundings, although they are advanced with the greatest confidence at the moment. In this respect they are more like those of general paralysis or dementia præcox, but the diagnostic physical disturbances of the one and the peculiarities of action and behaviour of the other are absent. We see neither the disablement of general paralysis nor its far-reaching mental and emotional impoverishment and advancing course, while the disturbance of the faculty of retaining impressions is far greater here than it is in dementia præcox. These differences are all the more important because falsification of memory occurs in both those

diseases, and, though not so well marked as what we see in the present case, may be very like it in other respects.

Polyneuritic mental disturbance is not exactly a common disease, although perhaps it may often be overlooked. It appears to be the result of a toxin on the cerebral cortex. It is often preceded by tuberculosis, and almost always by alcoholism. Some patients recover after several months of illness, but in others, as in the present case, an incurable state of weakness is developed, betraying its peculiar nature in the falsification of memory and the traces of neuritis. The treatment consists of very careful nursing and permanent deprivation of alcohol. In the present case it has come too late.

LECTURE XVIII

CHRONIC ALCOHOLISM

GENTLEMEN,—It is only in a comparatively very small number of cases, in the province of clinical alienism, that we are able to form anything like a reliable idea of the *causes* of the morbid phenomena, and still more seldom can we give an account of the way in which those causes work. For obvious reasons, we most nearly approach the latter goal of clinical inquiry in cases of *poisoning*, particularly in those which daily experience frequently brings before us. We know that *acute alcoholic poisoning* produces changes in the cortex of the brain which can easily be pointed out, and that the expression of these changes in intoxication consists of difficulty in comprehension, shallowness of the train of thought, and increased psychomotor excitability, with loss of strength and disturbance of the finer control of the movements. It is also known that the effect of large doses of alcohol may continue for from twenty-four to forty-eight hours, and that, by the regular repetition of the doses before the effect of the previous dose has passed away, a permanent reduction of the mental capacity for work in various departments is produced in a few days, and disappears only very slowly, even when the administration of the poison has ceased. These facts, which have been discovered by actual experiment, are calculated to give us a certain comprehension of the onset of the mental disturbance called *chronic alcoholism*.

If you examine the merchant, aged thirty-three, who entered our hospital of his own accord a few days ago, you will probably hardly notice any symptom of disease in him. He is perfectly collected and clear, and gives well-ordered information about his whole circumstances. His features are rather flabby and bloated. The knee and skin reflexes are very active, and when he spreads

out his fingers there is a fine tremor. The gums and mouth are very red, and the tongue is a little furred.

The patient states that he entered the asylum because he had drunk hard latterly. He did well at school, but when he was about sixteen he was induced by his father's drinking habits to drink beer pretty regularly, and got a taste for it, which, with many fluctuations, has gradually become more and more strongly developed. His marriage, when he was twenty-six, brought about an improvement for a little while, but afterwards things got worse and worse, until finally he spent nearly the whole day in a certain state of intoxication. In this condition, he was irritable, scolded on trivial occasions with the lowest expressions, became careless and negligent in his work, and ate only very little at home. On his wife's persuasion, the patient, who is good-natured and easily influenced at home, let himself be admitted here, and remained nearly four months in the hospital, where all the disturbances disappeared very quickly. He was urgently advised by us to remain a complete abstainer, and he followed this advice for eighteen months. His capacity for work had been greatly increased, so that he earned considerably more than before. His wife in particular was delighted with the change in her husband's nature, as the patient had become cheerful, amiable, and very domestic.

Four months ago he began to drink again, from curiosity, as he said, and to see if he could stand it. His comrades' example had awakened the wish to be able to drink just a glass now and then, so as not to "hang back" behind them. At first he was moderate, but very soon he was unable to restrain himself. "After the first glass one gets angry and excited, and then one goes on drinking without knowing how!" For the last few weeks he drank very hard, mostly champagne. Of course, he neglected his work, and when he saw that he no longer had strength to control himself, he begged to be admitted to the hospital again.

In the course of this narrative, the peculiar, humorous mood in which the patient relates his experiences strikes us once more. Thus, he says that he has drunk ever since he was born, for that is the first thing a man learns to do. He also tries to excuse his drinking a little, although he has clearly recognised his indefensible position. Both these features are characteristic of drunkards. They depend on the effect of alcohol on the emotions, which leads us to take serious things lightly, not to trouble about

anything, and to throw our sense of responsibility overboard. You will never find a drunkard who lays the blame for his drinking on himself, as long as he is under the influence of the poison. It is always the peculiar circumstances—his occupation, his comrades, and especially his wife—that are responsible for his drinking. The sense of his own want of independence and steadiness, revealed in these statements, is, in fact, only too well grounded on the weakness of will developed in every drunkard. The fact that our patient's capacity for work was seriously impaired is partly explained by the immediate effect of the individual amounts of alcohol which he took at very short intervals. But it has been shown by experiments with the patient that even now, a fortnight after having entirely given up alcohol, there is still a very considerable disturbance of comprehension, and also that in simple copying he makes an extraordinary number of mistakes, and is very forgetful. These are disturbances which are perfectly familiar to us in the picture of chronic alcoholism.

The life-history which I have brought before you here shows quite the usual course of things in numberless cases of chronic alcoholism—temptation in youth through our drinking customs, the gradual growth of the taste for drink in a good-natured and rather weak-willed man, the degradation of his conduct and family circumstances, the good resolutions which are always abandoned in temptation, and the rapid improvement on total abstinence. We cannot doubt, however, that the weakness of will produced by the poison continues for a very long time in a drunkard; at any rate, the danger of occasional relapses is extraordinarily great. Indulgence in alcohol itself, in particular, even in very small quantities, immediately weakens the power of resisting temptation. We all know that nobody sits down to get drunk, but that, under the influence of the first few glasses, self-control is more and more completely lost, just as our patient describes.

We must therefore try to induce all our alcoholic patients to *abstain completely*, if we would obtain permanent results. Even then there will be many disappointments. Still, it is possible in half or even two-thirds of the cases which are taken in time to obtain the permanent recovery of drunkards. In all the more severe cases treatment in an asylum is indispensable, as in ordinary life the enfeebled will of a drunkard is exposed to many temptations which he cannot resist by his own strength. Un-

fortunately, it is only now that a few asylums are being provided for drunkards, so that they can hardly be dealt with except in lunatic asylums—a circumstance which naturally makes the prompt treatment on which everything depends very difficult. Too often drunkards only come under correct treatment when they have become a public danger, and so exhibit the most severe forms of alcoholism. In our present case the prospect is not unfavourable, insomuch as the patient has a clear sense of his own need of help, and came to our hospital both times of his own accord. He may also have been fully convinced, by his relapse, that only strict and total abstinence can save him in the long-run. We may therefore hope that it will be possible, not only to restore him to health for the present, but also to keep him well for the future.*

There is a much less favourable state of things in the case of a wire-drawer, aged thirty-four, who was brought here a few days ago from the infirmary. He was there because he had committed a disturbance of domestic peace by making a forcible entrance into the house of his mother-in-law and breaking a glass door. The patient is perfectly quiet and collected, has correct ideas of time and place, and gives connected information about his circumstances. His school knowledge is very moderate. While he is quite at home in subjects which concern him intimately, he can only give very inadequate answers to rather more general questions in the departments of knowledge of the country, history, politics, and religion. With regard to the recent occurrence, he says that he has suspected for some time that his wife was unfaithful to him. He could not say it for certain, as he is away from home all day, but three months ago, after sleeping with her, he noticed a burning which he thought suspicious. It is true that a doctor whom he consulted told him that his wife's pregnancy, of four months' standing, might be the cause of this. A fortnight ago, when he came home, he found the sofa in disorder, and concluded that his wife had committed herself with another man during his absence. At that he made a violent scene with her. When he came back in the evening, he found that his wife was not at home, but had gone to her mother's house. As she would not return with him, he rang the bell very loudly, and pushed in the panes of a glass door "by accident."

This story will at once arouse the suspicion of a *delusion of*

* The patient has been well and a total abstainer for five years.

jealousy. Of course, we ought always to be very careful in making such an assumption. But the theory of a morbid origin for the idea is strongly supported by the indefinite nature of the statements and the extremely insufficient grounds of suspicion. What the patient says he observed evidently proves nothing at all, and therefore his jealousy has not arisen on the ground of experience. On the contrary, the facts, which show nothing in themselves, owe their special interpretation to the jealousy which has arisen on other and morbid grounds. The delusion of unfaithfulness in marriage is not in itself diagnostic of a particular disease, as it may develop in very different mental disturbances. But it is most common in advanced age and in alcoholism and cocaineism. As the last is altogether improbable on account of its rarity and expense, the ideas of jealousy lead us at once to the assumption of *alcoholism*. The patient, however, when questioned on this point, says that he has hardly ever been drunk; he only drinks his "fill." He has generally drunk three or four bottles of beer in the day, with a glass or two of beer besides, but never spirits. He worked so hard that he could **not** eat anything at home.

We would be very much deceived if we were to drop the assumption of chronic alcoholism merely on account of these statements. The last remark about not eating is very suspicious in itself, as the abuse of alcohol is a very frequent cause of such disturbances. And the amounts of alcohol given by the patient are considerable enough if we remember that, in spite of the universal admiration of the power of heavy drinking, drunkards always have a tendency to estimate the amount they habitually take as low as possible. If we look more closely at the patient, we will find that he is prematurely aged and very gray. His outspread fingers plainly show a fine tremor, and when he puts out his tongue its tremor is also distinct. The knee-jerks are exaggerated, but no other conspicuous physical disturbances can be seen. The tremors, as they exactly resemble those of chronic alcoholism, give fresh support to our suspicion.

If we turn to our patient's previous history, we learn that he has always drunk a great deal, and spent most of his wages on himself. For the last six months he has expressed ideas of jealousy against his wife, and threatened and beat her, so that she was not fit to be seen. He used the lowest expressions, even before his children. When he was taken to the infirmary on account of

the last scene, he was fast asleep, and evidently under the influence of alcohol. When we bring these statements to the patient's notice, he says that all that is very much exaggerated. There have certainly been little quarrels now and then, as there are in every household, but he has never threatened or ill-treated his wife. He only beat her a little once, when she did not give him some important news in time. As to her unfaithfulness, he may very well have been mistaken, and he will never say another word about it. He can give up drinking quite well, and he sees now that it does him no good.

You see that our suspicion has been fully confirmed by the further examination of the case. We find all the characteristic features of habitual drunkenness in our patient—the loss of wider interests, the selfishness which leads him to an exaggerated personal expenditure, the brutalization of his conduct, seen in his ill-treatment of his wife and his wild outbursts before his own children, and, lastly, the morbid jealousy which develops very often in drunkards, perhaps on account of the inevitable moral estrangement of husband and wife. This last symptom is particularly important, as the jealousy often leads to dangerous violence against the wife. Generally, too, it only appears after severe alcoholic deterioration of character.

That the patient flatly denies his drunkenness ought not to surprise you. This, too, is a common phenomenon in drunkards, just as people who are drunk will hardly ever admit that they are intoxicated. Neither must you be deceived by the patient's fine promises. You may hear such promises from almost any drunkard, who has abstained for a little while. But even if they are really meant, and are not simply a means of obtaining his discharge as soon as possible, a drunkard's weak will is, as a rule, unable to resist the least temptation. In all cases which are at all severe it is only after the lapse of a year that patients stand really firm on this point. Unfortunately, we have hardly any means of keeping patients wanting in insight against their will, until their recovery from the disturbances produced by alcohol can gradually be completed.* As the conspicuous symptoms of the disease disappear very quickly, we are obliged to leave such a patient to his fate far too soon, although we have it clearly

* On his demand, the patient had to be discharged after only a week. His condition has grown so much worse since then that his divorce is in preparation.

before our eyes, not only that he will certainly relapse, but also that he constitutes a serious danger to those around him, or, as in the present case, to his wife. It is obvious that much good might be done here by the total abstinence societies, which take these patients under their protection at once, and afford them so much support that many win their way to permanent abstinence by this means who could never have done so by their own unaided strength.

A very similar picture to the last—at any rate, at first sight—is presented by a farmer, aged forty-four, who has now been admitted to the hospital fifteen times. He is said to come of a healthy family, and was mentally gifted, but is considered unsteady. After serving as a soldier, he married at the age of twenty-four, and has two healthy children. He has been given to drink since he was twenty years old, and his circumstances have been reduced by his extravagance when drinking. He drinks, however, only from time to time, for a few days or weeks, but then takes anything he can get, in quite unreasonable quantities, without getting actually drunk. When the impulse to drink comes over him, no one can stop him. He forces his wife to give him money by serious threats, and runs at full speed to the nearest public-house, sometimes in the middle of the night. His whole bearing is then excited and irritable; his eyes shine, he talks a great deal and very loudly, and does not stay long anywhere, but runs from one public-house to another. He goes about by railway or in a carriage to places in the neighbourhood, treats other people, and spends his money recklessly. The sums expended on these occasions are often very considerable. Once in two days he got through 130 marks, which he had withdrawn from the savings-bank a little while before.

These outbursts cease after a time, and then the patient does not usually know exactly what he has been doing, and more especially where his money has gone. He is also in great trouble about what has happened, and is quite temperate, often not drinking a drop of spirituous liquor for a long time. His weight, which has fallen greatly during the drinking, is now recovered quickly. For the first few years these attacks of drinking came on about every three months, but afterwards they grew more and more frequent, until at last they returned after only a week. In the last seven years since we have known him there has been some improvement, and the patient has several times had periods

of freedom extending over many months. But the whole course of the illness has been very irregular.

If we turn now to the tall and strongly-built patient himself, there is hardly any striking physical disturbance to be seen. He is collected, and is perfectly clear about his position, feels ill and depressed, and complains of pressure in his head. Unlike the last patient, he wishes to be cured at once. "I cannot help drinking, and do not want to drink," he says. In his morbid states, as he describes them, he grows ill-humoured, stares peevishly in front of him, and feels an inward restlessness, which drives him forcibly to drink. "To drink all day long, only drink, always at it; one has to drink, whether one likes it or not—it is a kind of impulse from within." It goes again suddenly, "as if it fell from me." "When it comes I have to go to the public-house, and when it is over I have a loathing for it. You might give me money; I have no craving for it at all then." From these expressions, which agree very well with the statements of the patient's wife, it is clear that we have not to do with an ordinary drunkard. We have rather to deal with that form of alcoholism which is usually called *dipsomania*, and is characterized by the *periodical instinctive* setting-in of the tendency to drink, while in the intervals little or nothing is usually taken.

The starting-point of every attack of this kind, as can easily be proved, is a state of *depression*, a feeling of discomfort and restlessness within, which patients try to escape by drinking. Then, under the influence of the alcohol, they pass into a state of *excitement*, which constantly drives them to fresh drinking, until the attack suddenly comes to an end.

There are two facts of the greatest importance for the clinical understanding of these so-called "quarterly toppers." In the first place, we very frequently find these conditions in patients who undoubtedly suffer from epilepsy, and, secondly, it appears that in dipsomaniacs, when, as in our present case, there is no possibility of their being supplied with alcohol, the attacks pass off in the form of simple and very transitory depression, *exactly resembling that of epileptics*.

I could also point out to you, from our observations of the last few years, every conceivable form of transition from dipsomania to ordinary epilepsy. At one extremity of the line are patients in whom periodical states of depression, of dipsomaniacal colouring, appear in combination with severe attacks of convulsions.

Next come cases in which epilepsy is only noticeable, apart from attacks of dipsomania, in isolated fainting fits or states of semi-consciousness. Finally, we have to record observations in which, as with our present patient, dipsomania is the only sign of disease. All these facts make it impossible, as I think, for clinical reflection to see anything else in dipsomania than *one of the manifold varieties of epilepsy*. Even though drinking seems at first to be the most prominent feature of the cases, yet it is only an accompanying symptom, and is as far as possible from being the real cause of the attack. But it certainly very greatly aggravates the condition, as we have already seen in the states of semi-consciousness and the morbid states of intoxication in other forms of epilepsy.

From this it follows that, in spite of many points of resemblance, dipsomania must essentially be distinguished from ordinary drunkenness. In practice, the alcoholic deterioration of the whole man is usually less in dipsomania, because of the short duration of the single attacks, although they are often very severe. For this reason, dipsomania presents, on the whole, a more favourable prospect of overcoming the alcoholism than ordinary drunkenness. Of course, a long and careful education of the patient in total abstinence is necessary, a point we have, unfortunately, not been able to reach in the present case. If the patients possess enough strength of will and understanding of their malady to abstain from all indulgence in alcohol throughout their whole life, not only do the attacks generally pass off in the form of slight and comparatively harmless depression, but they also gradually become decidedly less frequent. During the depression rest in bed is most to be recommended, with a large dose of bromides under some circumstances. Our patient has repeatedly helped himself over an incipient attack by taking from 1 to 2 grammes of sulphonal or trional a day, and then sleeping until all tendency to drink had disappeared after a day or two.

LECTURE XIX

MORPHINISM AND COCAINISM

GENTLEMEN,—It is certain that every doctor will consider it the highest principle of his professional duty not to injure his patients. Yet I must introduce you to-day to no small group of psychical disturbances originated almost exclusively by the indiscretion of medical men.

First, you see before you a farmer, aged forty-four, who received a gunshot wound in his left hip twenty-one years ago, which grazed the pelvis and apparently also injured the sciatic nerve. As the result of this injury, he often had tearing pains in the thigh, which made walking very difficult and necessitated a series of cures at health resorts. Five years later the ball, which had remained in his body, was extracted, but the pains continued as before.

Morphine was administered to relieve the pains from the first, and its employment was afterwards left to the patient himself. As, of course, he did not observe the rules of asepsis in making the injections, numerous abscesses formed. He therefore decided, about sixteen years ago, to take the solution of morphine internally. As is always the case, the remedy soon became an indispensable necessity of life. As soon as he left it off, tiredness, depression, disgust, and a feeling of oppression set in, which always drove him back to the use of the poison. Soon the doses he took at first were not enough to obviate the sufferings which arose from the use of the drug, and the patient was obliged to take it in constantly increasing amounts. He often tried to reduce the dose, but always made shipwreck on the very severe suffering already mentioned, which prevented his reducing the doses beyond a certain point. It seems that, at times, he came down to about 0·06 gramme a day, but latterly he again took three

times as much. However, his statements on these points, as is always the case with this class of patients, are not very reliable.

For the moment, you see nothing very noticeable about the patient, who tells us his history in a rational and connected way. He finds his dependence on the drug very irksome, and has a lively wish to be freed from it, especially as it really has no effect at all on his pains, but only obviates the suffering arising from his leaving off the remedy itself. The patient feels more infirm than he did, sleeps badly, and has little appetite. His nutrition has also fallen off, but he is strongly built. The pupils are small, a sign of morphine poisoning, and the hands tremble a little. Both arms and thighs and the breast are quite covered with whitish, shining, sinewy scars, arising from the injections and abscesses. The flexibility of both elbow-joints is very much limited by cicatricial contraction. These scars are an infallible sign of the abuse of morphine or similar remedies, and are absent only in a few cases where the poison is taken internally from the first. There is a small, non-adherent scar of the old gunshot wound remaining on the left edge of the pelvis. In the left leg no disturbances of movement in any direction can be found, but the patient complains of an unpleasant creeping in the sole and toes, and piercing pains in the left thigh, as well as of fleeting sensations in the rest of his body, which can only be referred to the craving for morphine. The patient's memory and understanding show nothing abnormal. In the emotional sphere there is perhaps a certain tendency to self-pity.

Little as the symptoms of disease at first strike the eye in prolonged use of morphine, the whole malady has the most serious results for those whom it attacks. So far, all we know from experiments about the psychical effect of morphine is that apparently it makes the course of thought easier, but renders the carrying-out of the impulses of volition more difficult, and so disables the will. This last effect also becomes clinically prominent in the picture of chronic morphinism. The patients become flabby, and lose their power of action, their endurance, and their pleasure in work, and are thus most severely injured in their whole activity in life. To this must be added the continual alternation between the mentally exciting effect of the individual doses of morphine and the phenomena of deprivation, which set in after a few hours, and consist of painful inward restlessness and feelings of anxiety, and also of yawning, sneezing,

diarrhœa, sweating, palpitation of the heart, and many other tormenting sensations, which drive the sufferer with great violence to fresh use of the poison. Finally, there regularly appears an exaggerated sensibility to all kinds of pain and mental shock, inducing the sufferers to have recourse to injections for comparatively very trivial causes. In this way the morphine unfailingly becomes the central point of the patient's whole interest in life, to which all other considerations are subordinated, and an absolutely *slavish dependence on the remedy* develops, which is proof of an infirmity of the will. With this are associated sleeplessness, defective nutrition, diminution of the physical power of resistance, and exhaustion of sexual ability.

Unfortunately, it is extremely difficult to overcome this fatal malady. Of course, we must first withdraw the morphine, and this may almost always be done without serious difficulty in the course of two or three weeks. It is dangerous to cut off the supply of morphine suddenly, on account of the collapse which results. As patients generally say that their dose was larger than it really was, and also regularly take more than is necessary to relieve their sufferings, the dose may be reduced pretty quickly at the beginning of the cure. We gave our patient 0·16 gramme on the first day, and on the second day 0·12, and now, after a fortnight, we have come down to 0·04 gramme. The patient's discomfort has been very slight—a little restlessness and bad sleep, and in the last few days a little yawning and sneezing, with slight diarrhœa. The appetite has remained pretty good. In three or four days we intend to leave off the drug, keeping the last dose for the evening, to let the unpleasant phenomena pass off as far as possible in the daytime. Meanwhile, the patient has to keep strictly to his bed, is nourished as well as possible, especially with milk, and takes a prolonged warm bath daily. No important disturbances need certainly be expected now.

With the withdrawal of the drug, however, only a small part of the work has been done. It is much more important to prevent the extremely frequent *relapses*. In a still higher degree than in alcoholism a lowering of the power of resistance remains after the abuse of morphine, which leads the patient to have recourse to the drug at once, when suffering from overexertion, disagreeable conditions, or pain. This disturbance disappears only *very slowly*, generally not till after a full year, while morphinists usually consider themselves cured as soon as they have

gone without morphine for a few days. Until this fatal self-deception is entirely done away with, and morphinists are placed under careful oversight and treatment, for at least as long a time as is now recognised as indispensable for alcoholics, the very gloomy prognosis of morphinism will hardly improve. It shows an inexcusable want of conscience that every day in newspapers and pamphlets doctors should promise morphinists "a certain cure in thirty days, without restraint or discomfort." The withdrawal of the morphine in this time, without great suffering, is certainly not a work of any special skill. But the man who calls morphinists cured then deceives either himself or his patients. The unhappy victims of such advertisements wander from one institution to another after they have entirely lost their faith in themselves and in their doctors.

It is impossible to say with certainty what form our patient's future will take. In his circumstances he cannot, and will not, devote more than seven or eight weeks to his cure, although we have made the great danger of a relapse clear to him. Yet it is not quite impossible that he may remain free, as he has taken only comparatively small doses, and is a man of insight, whose strength of will does not seem to have been greatly impaired, and as the pains, which were the cause of his using the drug, are comparatively trifling.*

Things are much more serious for the tanner's wife, aged forty-four, who may serve as an example of the more severe forms of morphinism. The patient is collected and clear about her position, but in a very irritable mood. When her abuse of morphine is spoken of, she breaks out into violent scolding, because she is deprived of the drug. She declares obstinately that she will begin to inject again at once, and threatens to strangle herself at the first opportunity, saying that it is very easily done. The patient is small and ill-nourished. Her teeth are bad; her tongue is slightly coated and trembles. You also see a tremor in her outspread fingers. There is a coloboma in the left eye, arising from iridectomy. There are numerous shining scars on both arms and both hips.

Our patient has been here once already, four years ago. Her father drank, and her maternal grandmother was paralyzed. She married thirteen years ago, and has two healthy children.

* The patient is said to be free from morphinism now, eight and a half years after his discharge.

Her illness began seventeen years ago. At that time she had to undergo an operation for acute glaucoma, and the doctor gave her morphine ; then the nursing sister, who was herself a morphinist, went on giving it to her, so that she got accustomed to it. Later on she got the doctor to prescribe the drug at first, but afterwards got it from a chemist's shop without a prescription. She got the money for it by selling leather secretly, or opening her husband's safe with false keys. At last her husband took the administration of the drug into his own hands, but, as he never gave her enough, she used to outwit him in every possible way, taking morphine from the bottle secretly, putting water in, and then upsetting it. In the course of the last ten years she has used several thousand marks' worth of morphine, so that the domestic circumstances of the family have suffered greatly. Her condition kept getting worse and worse, and everything centred with her on the morphine. The patient became unsettled, unstable, and apprehensive, and could not work without injections of morphia. She ate and slept very badly, fell off in her nutrition, and looked pale and haggard. The menses disappeared almost entirely.

In the last few years the patient has begun to drink. All attempts to wean her from the morphine having failed, it was finally resolved to bring her to the hospital. She was said to have used from 1 to 2 grammes of morphine a day at that time. However, the withdrawal of the drug, which was carried out in five days, caused no particular suffering, so the dose was doubtless estimated far too high. There were only slight restlessness, a feeling of oppression, and a little diarrhœa. But during the withdrawal, and for a few days after, the patient was very much irritated and wanting in insight, and declared that she would get herself more morphine at once, although she had begun the cure at her own wish. It was only later on, with an increase in the patient's weight, which had fallen at first, that she grew more reasonable and confident, and said that she would never relapse again. With this idea, she would not stay here, in spite of all our warnings, but left the hospital, with her husband's consent, after only two months.

The relapse, which under the circumstances we confidently expected, followed, as the patient asserts, within the first few days, but her husband did not notice it till a year after. Very soon the old condition returned. If the patient had no morphine,

she went to bed, had palpitations, and felt so wretched that she would risk anything to get herself more, in all sorts of underhand ways. "I would have stolen," she says herself; "a morphinist has no sense of shame." She said that her daily dose amounted to about 1 gramme. We therefore administered a little more than one-third of this dose at first, and then reduced it pretty quickly. The very first night there was great restlessness, with pains in the limbs, sweating, and oppression. The patient complained, "You can form no idea at all of my torment." She was irritated with the doctors, and said that no one could help her, "even if an angel came down from heaven!"

On the seventeenth day, when she was only getting 0.04 gramme of morphine, she began to see ants on the sheet, and to hear her husband reproach her for having smashed a window-pane, without any cause, two days before. She was very much dazed, talked incoherently to herself, saw the dye-cock standing open in the tannery at home, and the dye running away, and swept lice and other vermin off her bed. At times she was quite clear, and afraid she was going crazy; she felt as if she had a thick board in front of her head. At the same time there was a coarse tremor in her hands. Often she did not know where she was, addressed the doctor as "thou," and was frightened, and sometimes apprehensive, sometimes in a humorous mood. On pressure on her eyes she saw water, but no other hallucinations of sight could be produced. On the other hand, she begged for a screen, so that she might not see a tall man, who held out a shield to her, inscribed with the words, "Injections are not allowed." This delirious condition lasted, with frequent fluctuations in severity, for about a week, and the daily dose of morphine was only reduced by 0.01 gramme during that time. The patient has now been clear again for three days, but is still unreasonable and irritated. We expect to finish the withdrawal in two or three days.

The prognosis of this case is far worse than the last, on account of the much greater quantities of morphine the patient has taken for a long time, and also on account of her instability and weakness of will, which has partly been produced by the abuse of morphine, but also existed in part before. Her wish to be freed from her slavery to the poison was at once extinguished by the first symptoms arising from its withdrawal. Besides this, her longing for the drug has led her to actions which are morally

very reprehensible, such as, unfortunately, are not unusual in morphinists when the morphia craving comes over them. This loss of moral fibre in all questions in which their malady comes into consideration shows the deep-reaching influence of morphine plainly enough, in spite of its slight effect on the memory and the action of the understanding.*

The withdrawal has been made difficult in the present case by the appearance of the peculiar delirious condition. Such, and other similar disturbances, are not very uncommon in morphinists, but can hardly be referred to the effect of the poison itself. In our present case the picture of disease points with the greatest probability to an *alcoholic* origin, and our patient has admitted that she has often had recourse to alcohol to relieve her sufferings. Alcohol is often employed by the doctor himself to make the withdrawal of the morphine easier, with the regular result that patients use both together. Cocaine is no less a favourite, and was long cried up as the true remedy for morphinism, until it was recognised that it is far worse than morphine. Our present patient was given cocaine seven years ago for a few weeks by a doctor. A feeling of apprehension and restlessness set in between a week and a fortnight later. She heard people talking about her, and her husband scolding her, and thought she was standing on a high tower, from which an angel was going to throw her down. It was only when she left off the cocaine that these hallucinations disappeared.

A mechanical dentist, aged twenty-six, who came to us from a well-known institution for the cure of morphinism, has been through very similar experiences. He had been a morphinist for some years before he entered the institution eight months ago. He got on very well for the first two months, until he had come down to a daily dose of 0.02 gramme. Then, when the first symptoms arising from the withdrawal set in, he used a gramme of morphine, which, like most morphinists, he had reserved for an emergency. He was able to deceive the assistant-doctor, for "he had not had experience enough to see through a morphinist." "Most of the patients cheated, and I knew it perfectly well, but they just pretended before the doctor." Later on he had an attack of pleurisy, during which he says the dose was

* According to information given by her husband, the patient takes no morphine now, two years after her discharge, but suffers from sleeplessness, nervous twitching, apprehension, and palpitation of the heart.

increased again to 1 gramme a day. Later still a fellow-patient, who also injected to relieve the symptoms arising from the withdrawal, gave the patient morphine repeatedly to insure his silence, so that the cure made absolutely no further advance.

He was now sent away by the manager of the institution, who told him, as he says, that the cure evidently could not be carried out. The patient helped himself over the last part of the time, during which he got no more morphine from the doctor, by drinking "opium-cognac" in the chemist's shop, and also bought a bottle of morphine and cocaine solution, of which he used part, and kept the rest for his journey.

Cocaine had been added to the morphine by his doctor to make the injections less painful. When he went away, the patient found, to his dismay, that he had left his morphine in the institution. He tried at once to make up his stock at the chemist's, but only got 0.13 gramme there, "because they had begun to suspect that he was a morphinist." Under these circumstances, he went back secretly to the institution, and there got a dose of an equal amount from the head warder. Having prepared himself for the journey by some powerful injections, he grew very sleepy on the way, and finally fell into the hands of a sharper, who robbed him of all his ready-money and his watch. When he went to the police about it, he gave them the impression of being ill, was sent to the infirmary, and fell into a state of delirious confusion and excitement there, which led to his being transferred to our hospital a week later.

On his admission, the patient was not clear about his surroundings and his position, and understood us with difficulty and imperfectly. Yet he showed considerable loquacity, and related his recent experiences, continually digressing and losing the thread. He also had numerous hallucinations, which he fully described to us afterwards. In the infirmary he saw cats, mice, and rats jumping about in the cell and nibbling his legs, so that he hopped backwards and forwards screaming; he felt their teeth. It was spiritualism, and they had come through the wall by hypnotism. The bed-clothes turned into two men, of whom one was dissected. There were also hallucinations of sexual import, and he thought that a murder was committed. The troops shot, and the fire-engine played till the water stood a foot deep in the cell. Here at the hospital the patient saw fish in the bath-water, and heard shooting and voices in the passage. Except for

sensitiveness to pressure on the great nerve-trunks, tremors of the tongue, several fresh abscesses, and symptoms of acute gastric catarrh, there was no very striking physical disturbance. The pupils were not contracted, although the patient had had 3 or 4 centigrammes of morphine regularly for the last few days.

The actively-excited and diffusely-chattering patient was at once put into a bath, and, after his stomach had been washed out, an abundance of fluid nourishment, small doses of morphine, and some caffein were given with the tube. His condition improved quickly in the course of the next few days, and he began to take food himself. The hallucinations disappeared, and he took a correct view of those he had previously seen. He was given his last dose of morphine on the fifth day. The symptoms arising from the withdrawal—sweating, yawning, and sneezing—were only moderately severe, but the patient still remained rather confused and obtuse. His mood was apprehensive, and occasionally irritated and threatening. In the numerous compositions he wrote, besides great diffuseness and want of connection, there appeared omissions, repetitions, and transpositions of letters and words, and also uncertainty and haste in the individual characters. But all these disturbances soon disappeared. The patient's weight rose 6.5 kilogrammes, and his sleep returned, so that you see him before you to-day in very good condition, after six weeks' residence in the hospital. Except for the injection scars, there is nothing at this moment to remind us of the illness he has been through. He has good insight into his malady, is full of confidence for the future, swears that he will never have recourse to injections again, and begs for his discharge, which is also urgently demanded by his mother. After what I have already said, you will understand that we accede to this demand with a heavy heart, and only because we have no right to resist it. In reality, the time is far too short to guarantee a permanent cure with any certainty.

A very remarkable feature of this case is the *delirious condition*, which lasted about ten days, and reminded one strongly of alcoholic delirium. It is quite possible that alcohol in the form of brandy, and "opium-cognac," employed to make the cure easier, have played a certain part. Some features of the delirium, however, point rather to the action of cocaine. Among these I count the long and dragging course of the disturbance, the hallucinations of feeling—*i.e.*, of being nibbled—and the sexual

adventures, but particularly the patient's loquacity, eager writing, and diffuseness, which we do not usually see under this form of delirium tremens, but find almost invariably in *cocaine-poisoning*. But the parts which the two poisons, working side by side, have played in producing the delirium cannot be distinguished with certainty. We can only say that that particular condition was not produced by the morphine.

What all these cases teach us is the *heavy responsibility* for the existence of morphinism which falls on the medical profession. It is true that members of this profession itself are by far the most frequently found among morphinists. But it is precisely the morphinistic doctors who go about most inconsiderately with the poison, although it is they who should see most clearly that it almost certainly destroys the happiness of life. Finally, you may see that it is an easy thing for any morphinist to get the drug he craves for anywhere. Our legislation has so far been powerless against this evil. The only real preventive of morphinism consists in every doctor's clearly realizing the *grave responsibility* which he incurs by the continued administration of morphine.

LECTURE XX

FINAL STAGES OF GENERAL PARALYSIS OF THE INSANE

GENTLEMEN,—I think that our best guide to the clinical meaning of the various morbid conditions with which we meet is their *termination*. We have had evidence enough before us to show how conditions of the most diverse kinds may alternate with one another in the same disease, so that it seems impossible at first to recognise their real connection. But when the more transient concomitant phenomena have run their course, the *essential* disturbances become more and more distinct—at least, in chronic and incurable cases. If we have clearly understood them, we can recognise the permanent and fundamental features even in those states in which they seem at first to be partly obscured by much more striking but only transitory disturbances. It is the termination of diseases, then, which will best enable us to form a judgment as to what symptoms are clinically important and what are not. But even if we entirely disregard the question of clinical grouping, a purely empirical knowledge of the termination of diseases must be of the greatest value to the physician, as it gives him the power of predicting the further course of his cases. This is a problem of almost greater importance in alienism than in other branches of medicine, for in the impotence of our attempts at treatment we must often find our only satisfaction in solving it.

The first disease to be recognised as a unit, on account of the regular law of its development and in spite of the variety of its forms, was *general paralysis of the insane*. In this disease the delusions of grandeur and insignificance, the excitement and depression, the delirium and hallucinations, all terminate in a *peculiar mental weakness of extreme intensity, with physical*

enfeeblement. The end is everywhere the same, when no intercurrent events occur to bring it on prematurely. And the numerous cases in which simple paralytic imbecility exclusively, or almost exclusively, dominates the picture show that the disturbances we have mentioned as being more obvious are not in reality essential, but are rather accidental or accessory phenomena of the course of disease.

If you look at the engine-man, aged forty-one, whom I will show you now, you will very soon see that he is *demented in a high degree.* It is true that he gives slow and laborious answers to questions, but he does not know exactly where he is, and thinks he is "in a hydropathic where there are nervous patients." He cannot tell the present month and year, gives his age incorrectly, cannot say when he was married, or how long he has been here, and does not know the doctors' names. His general knowledge proves to be extremely defective. Although he was a zealous newspaper reader, he says that Wurtemberg is a republic—"The Crown Prince will be President—George, or whatever his name is." The Battle of Sedan was fought on September 10 or 12. Other battles in 1870 were those of Königgrätz, Belfort, and Saarlouis. He makes many gross mistakes in doing sums, but at the end he says with satisfaction that he is good at mental arithmetic. He is quite contented to stay here; it suits him very well, though he does not consider himself insane. But he had to spend many hours together in great heat at the paper-mill where he used to work, and that has made him nervous. His mood is indifferent, and he does not worry at all about his position, but lets himself be managed just as we please.

Even in this short conversation, not only are the patient's weakness of judgment and dulness obvious, but the profound disturbance of memory and of the sense of time, place, etc., comes out so strongly that we are led at once to suppose that this is a case of *general paralysis of the insane.* The physical examination shows flabby, expressionless features, with unequal definition of the labio-nasal folds. When the tongue is put out, it trembles strongly, and there are accompanying movements of the whole face and of the muscles of the neck. The right pupil is more dilated than the left, and both are inactive to light. The hands tremble, and their muscular strength is impaired; the movements are awkward and unskillful. The tendon reflexes are exaggerated, and there are signs of ankle-clonus. There is

slight swaying on standing with the eyes shut. The patient takes no notice of a sharp needle-prick I give him during our conversation, and is quite surprised when his attention is drawn to the needle sticking deep in his hand. His walk is rather clumsy and his writing unsteady, and his speech is much disturbed. There is obvious syllable-stumbling when he repeats test-words. Moreover, when objects are shown to him, he is often unable to say what they are, although he knows the things themselves quite well, and agrees at once when he is told their names. There are also signs of aphasia.

You see that the result of the examination has fully borne out our supposition. The whole picture before us has all the essential features of general paralysis, though without the delusions and changes of mood we observed in former cases. Possibly the symptoms were more marked before the present condition set in, but that is not to the point here. The patient is illegitimate, and has two distant relations, who are insane. He was quite well until fifteen months ago, and was a temperate and industrious workman. He is married, and has had a child. The illness was first noticed after a fire, but the patient suffered from double vision for a short time four years ago, and was sometimes unable to retain his urine then. After the fright, headaches, sleeplessness, want of appetite, constipation, loss of memory, and depression set in. Sometimes the symptoms grew better, and the patient worked in the intervals, but did so hurriedly and with some excitement. When he was finally admitted here four weeks ago, he had slight attacks of weakness and stupefaction, during which he grew giddy, was obliged to sit down at once, and showed marked aphasia. He generally recovered in a few hours. Lues is denied by the patient, though gonorrhœa is admitted. But the previous occurrence of double vision makes a luetic foundation for the disease very probable in this case also.

By this previous history, an addition is made to our picture of slight but unmistakable paralytic attacks. Such attacks and transitory aphasic disturbances are very often the first signs of incipient general paralysis. Psychically, however, the patient has from the first simply presented a picture of gradually increasing imbecility, if you disregard the emotional depression which forms the almost invariable introduction to the illness. This kind of onset of general paralysis of the insane, generally called the *demented form*, is, in my experience, by far the most

common, although it comes before the nerve-specialist more often than the alienist, on account of the absence of grave mental symptoms.

The cases belonging to this group, however, are far from being all of the same kind. The greater part must certainly be counted among the most severe forms of general paralysis. The deepest mental enfeeblement, and even the termination of the disease, are often reached surprisingly quickly, occasionally within a few months, so that one is sometimes inclined to suppose that the disease must have existed for a long time before it was recognised. But I have often been able to satisfy myself that this opinion is wrong. The further course of the illness, which is usually attended by frequent paralytic attacks, and marked by the absence of remissions, may also be very rapid, and in nearly a fifth of the cases death follows within the first year of the illness. On the other hand, there are a few cases, running their course essentially under the appearance of simple dementia, which make very slow downward progress. Unfortunately, we know nothing whatever about the cause of these differences. In our present case, the first traces of the disease go rather far back; at least, we may connect the double vision and cystic disturbance, four years ago, with the malady which appeared more distinctly afterwards, as such symptoms often precede the palsy. In view of the slowness with which the more severe disturbances have followed those which were the first to appear, we may perhaps be justified in expecting the disease to run a rather protracted course in our patient.*

In order to convince you that a state of simple dementia in general paralytics may form the termination of symptoms of quite another kind, I will show you a merchant's wife, aged fifty-two, who has been in the hospital for six years. The patient, quite bent, comes in with painful, shuffling steps. The answers she gives to our questions are almost incomprehensible, yet they show that she knows where she is and can tell the names of some of the doctors who were formerly here, but has no clear idea at all of her position or of time. She cannot tell her age, or the year of her marriage, or her children's names, does not know how long she has been here, and considers that she is quite well and never has been ill. Her mood shows indifference, though

* The patient died three years and nine months after the first appearance of the psychical changes.

sometimes she seems rather exalted or irritated. The mention of her husband and children makes no particular impression on her. Yet isolated expressions that she uses still show traces of her former knowledge. She interpolates scraps of Italian and French in her talk, and caps the name of Artaxerxes, mentioned before her, with the words "Hannibal" and Carthage. She can still read fairly well, but does not understand the sense of what she has read. Now and then she offers some resistance, refuses to give her hand, and complains in a scolding tone that all that she possessed has been stolen. She behaves quite apathetically in other respects, and does not trouble about what goes on around her.

Physically, the flabbiness of her vacant features and the severe disturbance of speech are very noticeable. Her articulation is very indistinct; the individual words are pronounced jerkily, with an effort which often results in the omission or transposition of letters. When the tongue is put out, it trembles almost spasmodically, and there is a distinct quivering of the lips. The right nasal fold is less marked, and the right pupil very much larger than the left, while both pupils are quite inactive to light. Sensibility to pain is much reduced. The tendon reflexes are much exaggerated.

The diagnosis of general paralysis of the insane is, of course, confirmed by the result of the examination. Here, too, we see all the appearances characteristic of this disease in their most definite form, united towards the end of the illness in a certain degree of purity, without non-essential disturbances. The patient, who belongs to an excitable family, was always very active and irritable. She was highly talented in many different directions. She aborted three times, and has a daughter, who suffered while still quite young from a creeping paralytic affection of the brain and spinal cord. The beginning of the patient's paralysis can be traced back eight years to a transient loss of speech. In the course of the following year a fundamental change gradually appeared in her whole character. She became very irritable, flighty, and forgetful. She was negligent of what she did, left out letters and words in her correspondence, lost her knowledge of languages and her execution in singing, also her artistic taste, offended against good manners and propriety, and became rude and rough to her relations. Her speech became indistinct and slurring.

In this condition the patient was admitted to our hospital,

and even then showed marked mental weakness. She now began to express quite senseless ideas of grandeur. At first she only had a property in Italy, an admirable voice, and wonderfully pretty children, but later on she gave away 1,000 litres of red wine and champagne, had 5,000 chests full of golden clothes, many millions in gold, thirty beautiful fingers, four octaves in her voice, and three children by Bismarck, was two months pregnant by the Emperor, felt four-footed children in her womb, had had seventy children, etc. She repeatedly had slight paralytic attacks, with giddiness, vomiting, and great flushing of the head. Her weight rose, with a gigantic appetite, from 53 to 80.5 kilogrammes in the course of fifteen months.

Then a fall began, rapid from the first, and finally almost precipitate, to 45.5 kilogrammes. At the same time a state of violent apprehensive excitement set in. The patient became quite bewildered, could not eat or sleep, resisted every influence, threw herself about in the greatest restlessness, tried to inflict injuries on herself—for instance, to tear out her tongue and her teeth—and expressed a number of the most senseless ideas of depression. She was dead ; she could not swallow ; robbers were coming ; her husband was slaughtered ; her children were in the water-closet ; 100,000 Empresses were shut up in the fuel-house ; she had been robbed of 10,000 handkerchiefs ; her breasts had been cut off, her blood drawn off, etc.

It was not till after some months that the patient recovered very slowly from this highly critical condition, and her weight has never risen much above 50 kilogrammes at any time in the subsequent course of her illness. It now became evident that both the feeble-mindedness and the physical disturbances had made a very considerable advance. The patient had become quite unintelligent and dull. Since then, however, her condition has remained much the same.*

You see that a number of conditions of different kinds have succeeded one another in this case, the last being the simple dementia of general paralysis. This will show you that the current division of this kind of paralysis into the depressed, agitated, and demented forms, and so on, does not present a series of definite groups, but only gives the general outline of a classification of the material for study. Unfortunately, in the present state of

* The patient is still in the hospital, the disease having lasted for more than eight years. She is completely demented, and physically quite decrepit.

our knowledge we have nothing better to put in its place. The weight in this case has corresponded more or less to the changing conditions. This is in agreement with general experience. It is very common for the weight to rise enormously in certain stages of paralysis, and then to fall continuously later on, without any corresponding change in the quantity of food which is taken. This is so common an experience that it can hardly be accidental. Indeed, I think there is no doubt that we see revolutions in the physical economy here which are somewhat similar to those observed in alcoholism and diabetes. These phenomena may therefore show that general paralysis is not purely a disease of the brain, but is associated in its course with changes in the whole body. And I think that the tendency of paralytics to bed-sores and to hæmatoma on the ear, and the remarkable brittleness of their ribs, are to be interpreted in the same sense, as well as the frequency of albumin in the urine and of other vaso-motor disturbances.

The case before you is also an example of general paralysis of the insane in women. Its course is different in no essential point from what we have observed in men. It has sometimes been said that the disease runs a slower course in women, and that the delusions are less extravagant. But this is only the result of the greater freedom of a man's position, giving him the opportunity of doing himself more serious injuries, which may have an unfavourable effect on the course of the disease. The abortions which have taken place, and perhaps the illness of the child, make it seem very probable that syphilis has played a causal part in this case also. But the proof of this cause is generally far more difficult to trace in women even than it is in men.

Lastly, a way-bill carrier, aged fifty, whom I am obliged to have brought before you in bed, as he has long been unable to walk, shows you the final and most aggravated stage of the disease. The patient has lain insensible since yesterday, and does not respond when he is spoken to or even pricked with a needle. His head is turned over to the left, and the half-opened eyes are also fixed in that direction, and are rotated a little upwards. The pupils are dilated and inactive to light. The features are flabby and sunken, and the lips are dry and covered, like the tongue, with slight sordes. The breath has the half-putrid, half-sour aromatic smell which is common in starving lunatics, and is due to the presence of acetone. The breathing is superficial and slow,

the pulse small and frequent, and the temperature rather high. You notice an obvious spasm in the limbs when you try to bend them, particularly on the right side, and the knee-jerks are very pronounced. If we wait a little while, you will see the eyes suddenly turn quite to the left. Then there is a jerking movement of the head to the left, succeeded in turn, after a short pause, by clonic spasms of the head. At the same time, the spasm in the limbs increases, and also ends in slight twitching, especially on the right side. The whole movement only lasts a few minutes, and then the patient lies motionless again.

What you have before you is a *paralytic attack*. It differs from an epileptic seizure in the comparatively slight signs of convulsions, combined with the most profound loss of consciousness, and particularly in the unequal manner in which the different muscular groups are affected. In this respect it resembles cortical (Jacksonian) epilepsy, as distinguished from ordinary epileptic fits, in which the convulsions are symmetrical. There are, however, paralytic attacks which are exactly like epileptic seizures. Others resemble apoplexy. The patients suddenly fall to the ground, breathing stertorously, and either die at once or wake up after a little while with one side disabled, and often with aphasic disturbances. Very sudden recovery from these symptoms must always arouse a suspicion of general paralysis. We have already adverted to the slight attacks of giddiness and fainting, which often betray their fatal import by traces of aphasia.

In our patient the attack, which really consists of a series of single attacks, has already lasted for thirty hours. This may go on for some time under certain circumstances—for eight or ten days, or even longer—but the danger to life grows greater every day the attack continues.* Death is not, however, as a rule, the immediate result of the affection of the brain, but is generally caused by septic pneumonia. The saliva, mingled with decomposing products in the mouth, trickles unhindered through the quite insensible larynx into the lungs, producing lobular inflammation. Another danger arises from the bed-sores, which can only be avoided in a patient who is quite helpless and continually dirties himself by very careful nursing and, best of all, by the use of the prolonged bath. As the patients cannot swallow, they cease to take any nourishment, and it is best to

* The patient died next day during the attack.

leave them almost fasting. But if the attack lasts longer than two or three days, recourse must be had to artificial feeding, regulated by the general state of nutrition. Previously to this, the attempt may in any case be made to introduce some water into the body by large injections of saline solution into the rectum. Where there has been dangerous heart-weakness, we have also employed subcutaneous injections of common salt. The cavity of the mouth must be kept as clean as possible by frequent washing with disinfectants, and attention must also be paid to the regular evacuation of the bladder and rectum, which often cease to act. Even with the most careful nursing, a well-defined paralytic attack is always a most serious occurrence, and though it may be possible to maintain life, one generally finds that the patient's dementia is markedly increased.

Our patient has already had a paralytic attack three months ago, lasting for several days. It is a year and nine months since he first fell ill. It was noticed that his memory was failing, and that he made many mistakes in arithmetic, and could not write or speak properly. Although these disturbances quickly increased, he did not feel ill. It was only when he had the attack that he was brought to the infirmary, where even then he proved to be quite vacant, showed considerable restlessness, and developed some slight ideas of grandeur. He came here seven months ago, and was then completely demented, with a most pronounced disturbance of speech, chiefly in the form of a tendency to reduplicate unaccented syllables. He was also plainly aphasic. Thus, he called firearms "woods, little wood, wooden chest," and a watch-key "watch-emperor," "watch-winder." His pupils still reacted a little. His general reflex excitability was so greatly increased that, on sudden movements being made against his face, his whole body shrunk at once. If he was placed on a chair so that only his toes touched the ground, his legs immediately began to rock up and down regularly by the production of ankle-clonus. Walking and standing soon became impossible as the result of weakness and a spastic condition of the legs, and, in spite of the patient's taking abundant nourishment, his weight fell continuously, 10 kilogrammes in all. He became more and more demented and helpless, and was permanently wet and dirty. Latterly there has been loud and continual grinding of teeth, which is often observed in the last stages of general paralysis.

This complete extinction of mental life, in conjunction with

the most severe physical infirmity and the signs of disablement described, forms the regular termination of the illness, if it is not first cut short by intercurrent contingencies. It is true that there are always individual cases reported in which paralysis is said to have come to a permanent standstill, but, considering the enormous number of patients who end unfortunately, we can hardly count on such possibilities. Besides, it is quite possible that there are certain unusual diseases which may at times look very like general paralysis, but present a less unfavourable prognosis. My own experience seems to show that every patient with isolated symptoms of disablement is not to be assigned at once to this disease, with the consequences which would naturally follow.

Perhaps anatomical investigation will some day show us the right road here. It has already taught us that the foundation of general paralysis is formed by widespread disturbances of all the important constituents of the cortex—the cells, the fibres, and also, it seems, the fundamental gray substance between the cells—also by a great increase of the glia, and very often by processes of hypertrophy in the walls of the small vessels of the brain. The final change is *shrivelling of the cerebral cortex*, with more or less complete destruction of those parts of the texture which are generally considered to be the psychological tracts. The morbid changes also spread over many other parts of the brain—the great basal ganglia, the nerve-pith, and even the spinal cord, in which the lateral and posterior columns seem to be more particularly affected. Lastly, the pia and dura mater, and apparently a great many of the organs of the body, are sympathetically involved. But on this last point our knowledge is very imperfect.

In the course of anatomical investigation, it has already been possible to distinguish some particular forms, giving characteristic results on examination, from the great mass of cases which are usually designated as general paralysis of the insane, especially the maladies developed at the beginning of old age with *arterio-sclerotic* changes. The clinical definition is still sometimes doubtful, but it may well be expected that in time we will learn anatomically and clinically to distinguish the picture of general paralysis arising on a syphilitic soil, which undoubtedly forms the bulk of the cases observed, from such outwardly similar forms as present another mode of origin, and therefore may possibly have a different course and termination.

LECTURE XXI

FINAL STAGES OF DEMENTIA PRÆCOX

GENTLEMEN,—In general paralysis the inexorable results of the disease make it comparatively easy for us to recognise without post-mortem examination—at all events, at the end—that all the different forms of the malady are to be traced back to a uniform process of disease in the cortex of the brain. With other forms of dementia it is a far more difficult question. In these the final conditions are in no way so similar that the homogeneity of the very manifold symptoms is made obvious by them alone. Not only do all possible gradations present themselves, from cases of the most favourable kind to those of the gravest feeble-mindedness, but also sometimes one and sometimes another relic from the earlier stage of the disease can give to the final condition its special colouring. In this way there arises, not only during the course, but also in the results of insanity, an absolutely confusing wealth of form. I can still only too well remember the perplexity with which I faced, throughout very many years, the vast number of states of mental weakness harboured by every large asylum. Their manifold manifestations were to a certain extent grouped together, but, in spite of all variety in outward form, definite characteristic features recurred with surprising uniformity.

We are given the key to this confusion by the *histories* of individual patients. We learn from them that with the great majority of more or less imbecile patients those appearances which we have learnt to recognise in *dementia præcox* have existed previously, even if with varying degrees of distinctness. But they further teach us that where imbecility has been induced by different processes of disease, upon closer investigation the particular nature of the malady still remains recognisable, even

in the final conditions. Therefore it is a fundamentally soluble problem, if at the same time a difficult one, not only to be able to predict, in the beginning of a mental derangement, the further course and result of the malady, but also inversely to form conclusions *a posteriori* upon the earlier stages of the disease from the final condition. It is not one particular form of dementia with incidental variations which constitutes the result of the most varied kinds of uncured mental disorders, but every form of insanity, if not cured, leads to a final condition *peculiarly its own*. It is true that this peculiar condition invariably shows itself in the *essential* symptoms of the disease alone, whereas the incidental accompanying phenomena may greatly change. Our knowledge of what is essential is, unfortunately, at the present time very incomplete, so that often enough we must remain in doubt as to the meaning of a particular final condition, should we be without the preceding history. Still, even now, in a considerable number of cases, the careful observation of clinical symptoms makes it possible for us to trace out at least a rough outline of what has gone before from the final stage of the malady.

The woman, aged fifty-seven, who will serve as a first example, is quite collected, clear as to time and surroundings, and gives information with great loquacity. She at once begins to lay stress upon the fact that she is quite well and ought not to be in the hospital, and demands her immediate release. Her husband would appear to be insane for having brought her there ; he has kept company with other women, treats her badly, and spends a great deal of money, while she has always been an exceedingly well-behaved and thrifty wife. The neighbours had insulted her, a traveller had made an ill-mannered gesticulation in her presence. When she went to the district office to get a certificate of respectability, she was suddenly obliged to laugh, although she was by no means in a laughing mood ; it had been the same in the asylum when they had examined her with mirrors. She is treated badly by the persons employed in the establishment ; her fellow-patients repeat things they have been taught to say, and they spit in her wash-hand basin. The bed burns at night in a strange way ; there must be something put in the mattresses. The doctor has damaged her arm ; something, too, has been done to her eyes. The patient produces these statements fluently, but in an affected " High German " way of speaking, and with all manner of forced expressions. She obeys orders only after

some persuasion, says it is not necessary to give her hand, but in the end extends it stiffly towards the doctor. Of physical disturbances we only note a very pale and somewhat puffy appearance, with a small and frequent pulse (120 beats).

On further interrogation, it appears that the patient has already been several times in our hospital, and can still quite well remember all the details of importance of her previous visits. Her mother was morbidly religious ; she herself married at twenty-two years of age, and had nine children, of whom six are dead. In her thirty-eighth year she had typhus, soon followed by the beginning of the mental derangement. Mention must be made that at that time she was in the first months of pregnancy. She thought that people spoke about her, and looked her impudently in the face, spat in front of her, made unbecoming allusions, and sought to entice her into making incautious remarks about the Emperor, so as to be able to inform against her. As in consequence of this she did not eat, and slept badly, she was brought to the hospital. Here she felt herself persecuted in the same manner, and had several violent attacks of screaming, in which she tore out her hair and made faces. For some weeks she was quite mute, and always took up the same position with an imbecile expression of face. Even with the setting-in of improvement she remained discontented, grumbling, and unintelligent, and would not admit that she had been ill. After nearly six months' residence in the hospital, she returned to her family, but there she proved irritable, absent-minded, and forgetful.

Seven or eight years ago her condition gradually became worse ; she was dull and inactive, spoke little, expressed the old ideas of persecution, and four and a half years ago suddenly tried to poison herself with the heads of matches, and also later on to open her arteries. Her husband, even at that time, had been struck by her affected way of speaking, for this had not formerly been her habit. When she was again brought to the hospital, she quickly sank into a deep stupor. Although she was clear as to time and surroundings, kept herself tidy, and ate of her own accord, she sat in bed quite speechless for nearly a year, much bent forwards and with firmly-closed eyes, opposing every interference with the most obstinate resistance. If after much trouble one succeeded in laying her down, she at once sprang up again. To open her eyes proved quite impossible. On sticking a needle

into even the most sensitive places, she reacted at most by a slight blinking or flushing. Visits from her relations made not the slightest impression on her. At meals, she dipped the point of her nose into her soup, though she guided the spoon quite slowly and properly to her mouth, but stopped directly anyone came into the room. Eventually there were sores from pressure between her firmly-clasped fingers. The body-weight sank about 16 kilogrammes.

The patient was now taken to another asylum, where she remained in the same condition for nearly a year longer. From this she woke up quite suddenly, and demanded her immediate discharge, for she was perfectly well. Even now she regards her strange behaviour as in no way morbid, although she admits all the particulars. She had not spoken because she thought she would go home the sooner if silent; she complains bitterly that someone had at that time stuck an iron (the pin) into her forehead, and had knocked her over.

After the cessation of the stupor, the patient returned to her husband two and a half years ago, but was very irritable, especially at certain times, and went to different lawyers about bringing an action on account of shutting her up in the asylum, for which she demanded 30,000 marks as compensation. Then distinct hallucinations of hearing and feeling gradually supervened. Her husband and people in the street mocked at her; there were infernal machines in the bed and in the chair, and also in the stove, through which someone let loose rays upon her. Horrible voices resounded from her own body, out of the water-pipes, and in the barking of dogs, so that she had no rest night or day, and threatened to starve herself. All these things the patient now simply denies. She only admits that she heard voices, also that she is breathed upon and blown upon at night; she has never been guilty of *lèse majesté*. She keeps almost entirely apart from her fellow-patients, but occupies herself industriously with sewing, and writes numerous letters of uniform purport, in which she importunes her husband to take her back home.

It will be evident to you, in consideration of the long-continued, sharply-defined negativistic stupor, that in the present case we have to deal with *katatonia*. Also the first development of the disease and the appearance of a depression, with ideas of persecution and hallucinations of hearing, correspond with this opinion

throughout. But it is a very remarkable fact, that after the first setting-in of the disease, the nature of which was plainly shown by the transitory sinking into stupor, a period followed of more than ten years, during which no more striking symptom existed than a slight change in manner. That this condition certainly did not mean recovery is proved by the subsequent severe relapse. It is precisely this observation that ought, like so many similar ones, to urge us to further caution in judging of the improvement and cure of katatonic patients.

The second attack is a good illustration of the sudden disappearance of stupor after apparently far-advanced feeble-mindedness, but at the same time it shows the complete want of insight into the disease, and the inability of the patients to give any kind of information as to the motives for their strange behaviour, or even to recognise the morbidness of it. From this, in particular, it becomes clear that katatonic stupor may not be brought about by hallucinations and delusions, as is still sometimes supposed, but depends upon an altogether primary disturbance of the will. Finally, the present condition of our patient is that of a peculiar kind of *feeble-mindedness*, with weakness of judgment, emotional dulness, irritability, mannerisms, and indications of negativism, while comprehension and memory are little injured, or not at all. At the same time, hallucinations exist in the province of feeling and hearing, as well as the delusions connected with them, and from which they are distinguished only in degree, as we have already learnt to recognise in the paranoidal forms of dementia præcox. This condition is to be looked upon essentially as a final one; deterioration, stupor, or excitement, and further mental weakness are still very possible, but one must no longer count on a substantial improvement.*

An essentially different picture is presented by the woman, aged thirty-six, whom you now see entering with rather a shame-faced smile. She sits down without looking round, gives single monosyllabic answers only to pressing interrogation, and stares mostly in front of her with a vacant expression of face. On being asked where she is, she says "In the room," but admits having been here four years ago; she calls me "the gentleman from Frankfort," and says that she has seen one of the other doctors before; he was always running through the room. She does not

* The patient has been in a nursing asylum for the last six months, and is again gradually sinking into stupor.

know names ; says she is not ill. She gives no further information as to her condition or as to her domestic circumstances than that she has children, who are at home. She does not carry out instructions, and resists the attempt to grasp her hand. Whilst we are discussing her behaviour, she suddenly begins to speak in a quite confused manner. "What do I want, then, with the old fools lying down there ? I can't clean them. The old creatures are lying over there. They have nothing to do with me ! They are quite old enough ; they can lie there. Some people say to lay down—to lay down or corpses." She goes on laughing, "They have said children lay corpses, but a child does not lay eggs. The people here are much too haughty to me."

It is impossible to obtain an explanation of these remarks. In speaking, the patient does not look at us, but looks to one side, keeps silence, and begins after some time to murmur to herself similar incomprehensible sentences, gradually becoming excited. Physically, the patient is very pale and badly nourished ; she has nursed her child since her last confinement of eighteen months ago. Sugar was found transitorily in the urine.

In the clinical interpretation of this condition we have, above all, to consider the peculiar, irrelevant talk of the patient, which is evidently to be taken as confusion of speech, as no reference to the questions directed to her or to other incidents in the surroundings can be seen in it. At the same time, the patient is certainly in a position to understand simple language, as individual answers prove. I will mention in addition that at times she occupies herself in quite an orderly way in the work of the ward, though it must be admitted she talks all the while in an absolutely confused manner. Then, the indications of negativism must be borne in mind—the refusal to give her hand, her looking away in talking, her silence to questions which she is in a position to understand, and, finally, the complete indifference and apathy of her whole behaviour. The patient is *demented*, and presents a series of symptoms with which we are familiar from the discussion of *katatonia*. We shall scarcely err, therefore, in recognising her condition as the outcome of *uncured katatonia*.

In her previous history we have to note that a step-sister of the mother was feeble-minded. Four years ago, in connection with a confinement, the patient had slight convulsions, with palpitation of the heart, without loss of consciousness. Three years ago, when one of the children lay ill with influenza and a removal to

another town was impending, the patient became apprehensive, worried over the future, thought she had made her husband unhappy, became negligent in housekeeping, and had to be brought to the hospital. Here she was tearful, almost mute, did not know where she was, and complained of heaviness in her head. She wandered out of bed a great deal, did all sorts of silly, incomprehensible acts, threw plates out of the window, upset a whole dish of vegetables, and was occasionally senselessly violent without any perceptible cause. Her mood was generally indifferent, now cheerful, now irritable; she laughed to herself a great deal, and sometimes suddenly screamed out "Hurrah!"

Her talk was at that time much more irrelevant and incomprehensible than it is now. She offered the doctor a piece of bread, and added, "Here you have the oxen. I am an ox, am an ox; take it, I am an ox." In this there appears still more distinctly than in what she has said to-day the inclination to senseless repetitions of the same expression, which we have so frequently remarked in katatonia. Another time she exclaimed, "I have not winked, I have not wished, I have not stolen. I fare as I have never done at home. Baking ovens are not persons." Together with the forced phraseology, one notices a senseless forming of new words, which is a very familiar accompanying phenomenon of confusion of speech.

The patient was indifferent to, or irritated by, the visits of her husband. She devoured the eatables he had brought with him in a very greedy and disgusting way. Hallucinations also apparently existed—at all events, transitorily—although no further detailed information was to be learnt about them from the patient. But she spoke of a smell of death in the food, saw her brother go out, and thought it was said that she would redeem every soul. Finally, one was struck by the great slowing of the pulse.

After six months' residence in the asylum, the patient was taken home, contrary to medical advice. There, too, she was often violent, expressed ideas of persecution, and thought her children were being beheaded. Although she was very forgetful, she occupied herself quite well with the housekeeping, and another child was born. But latterly she was so troublesome, through having tried to break into a school and to open a grave in the churchyard, that four months ago she had again to be brought to the hospital. Here she presented from admission the picture

that you have seen to-day. She often expressed quite confused ideas of persecution, especially of sexual import.*

During her first residence with us an attack of syncope had already taken place ; at home also there were repeatedly similar attacks with convulsions. A few attacks have lately been observed here. The patient sank to the ground, and rolled about with her eyes shut, without reacting to pinching or pricking, and murmured, " It is bad, my head." Short trembling and convulsive shocks appeared in the arms and legs, and also in the muscles of the body ; the jaws were firmly clenched. Breathing was superficial, with long pauses ; the pulse was accelerated. The pupils reacted to light. After from fifteen to twenty minutes quietness supervened. These attacks pretty nearly resemble those which we have observed in hysteria. It is possible, of course, that they may indicate hysteria ; still, it is noteworthy that the first of these occurred during a confinement, which we have certainly learnt to recognise as an important cause of katonnia. For this reason, I should like to point out that in katonnia we pretty frequently find attacks of this kind, and also others, reminding us more of simple fainting fits or even of epilepsy. I know a whole series of cases in which attacks of pronounced hysterical colouring formed the introduction to a katatonic illness, with grave dementia. We are certainly not as yet in a position to give an assured explanation of these clinical phenomena.

An impression of almost greater dementia than that of the patient just now discussed is made by the cigar-maker, aged twenty-one, of strong build, who now sits before you in listless attitude, dully staring in front of him. On being pressed, he gives his name. He knows where he is, knows the date, and recollects having been here four or five years ago, but is unable to give our names. He does not feel ill, and says he likes home better. The patient does not show the slightest interest in his surroundings, does not look up, does not speak of his own accord, and gives only quite short monosyllabic answers. Except for an occasional silly smile, he shows no signs of variation of mood. He carries out orders awkwardly, offers his hand in a stiff, affected position, and is distinctly cataleptic. Of his lot in life, his domestic circumstances, and his plans for the future, one does

* The patient has been five and a half years in a nursing asylum. She is demented, confused in speech, negativistic, affected, and at times excited.

not learn a word from him. But if we place this apparently completely demented patient in front of a map of the country, he is able, with quite surprising rapidity, to find any large town you like to mention ; he also does simple sums quickly and correctly.

From this we see that the mental dulness and poverty of ideas now existing must be an *acquired condition*, for the patient, as he now is, could not possibly have acquired knowledge of any such kind. If we further keep in view the want of emotional feeling, also the mannerism in offering his hand, we are forced to adopt the decided opinion that our patient presents the *final stage of dementia præcox*. It is of importance to notice that he presents a somewhat puffy face, which we very frequently see in that disease. Finally, I must draw your attention to the numerous little superficial sores on the face and scalp which the patient has incurred through continual picking with his fingers. He has also torn out some of his toe-nails. We pretty often meet with an inclination to tricks of this kind, mostly very obstinate little self-inflicted injuries, in the imbecile states of *dementia præcox*.

There is to be noted in the previous history of the patient that two of his aunts suffered from "falling sickness." He himself had convulsions in his childhood, and seven years ago several times suffered from erysipelas. In school he was one of the best scholars, but always rather shy and retiring. Six years ago he had a fall on the back of his head. Soon after that he became apprehensive, thought someone bent over his bed at night; the quality of his work fell off, and he made confused assertions that he had taken part in the war, and had beaten six devils to death. He became gradually quieter, absent-minded, as it were ; sometimes for amusement he would drill his fellow-workmen ; he was strikingly greedy at meals, a symptom very frequently noticed in *dementia præcox*, especially when alternating with refusal of food.

On admission to the hospital five years ago, the patient, even at that time, made as mentally-weak an impression as he does now. But he was obstinate, gave entirely irrelevant answers, and made statements in which confusion of speech with stereotypism were noticeable. He repeated several dozen times, "He is the ruler, he is the ruler," then went on, "To kill needlessly—French. That ought to be published by ringing the bell ; I will take the bell myself." To the question, "Where are we here ?" he replied, "With the ruler." "Of what country ?" "Of Job"—and so

on. Emotionally, he was completely dull, did not trouble himself as to his surroundings, and sat or lay about in corners, without occupying himself. After some months he became rather more active, and now disclosed an amount of information for which one would never have given him credit. But his behaviour remained silly, his answers often senseless throughout. At times he fell into excitement, suddenly spat in the doctor's face, smashed a pane of glass, and became very quickly quiet again, without being able to give the reason for his actions. He also apparently heard voices at such times. He frequently showed echolalia ; once he made an attempt to strangle himself.

After nine months' residence in the hospital, the patient returned home and began work again, but was very slow at it. He was taciturn and often irritable. Nearly a year ago he became greatly excited, frequented the public-house, threw articles out of the window, screamed out that he was bewitched, seemed to have all sorts of hallucinations of sight and hearing, hardly ate or slept at all, and on that account had again to be brought to us. Here he was collected, but demented and dull. He remembered his former residence here without being able to give details. He related in a confused way that he had been persecuted and bewitched. While for the most part he lay in bed quite apathetic, hiding himself under the bed-clothes, he from time to time fell into very violent excitement, was destructive, called out of the window, talked incoherently, was dirty, took up strange attitudes, climbed about on the bedstead, and threw out the bedding in order to place the wire-mattress on the top, threatened violence, and complained that they wanted to cut open his body and to tear out his throat, apparently on the ground of voices. After a few days he again became quieter, and sank into the same imbecile inaction as before. Physically there was no disturbance to be seen, except severe dermatography, mechanical excitability of the facial nerves, and the puffy appearance of the face, but his weight showed pretty regular fluctuations in connection with the excitements.*

The picture here described may serve as an example of innumerable cases of the same kind—*i.e.*, the gradual enfeeblement after apprehensive mood in the commencement, with the development of individual katatonic symptoms, such as in this case

* The patient went into a nursing asylum a year ago, and from there was able to be discharged improved.

the confusion of speech, the stereotypism, the automatic obedience, the instinctive actions and mannerisms, and, lastly, the continuous alternation between dull semi-consciousness and silly excitement, along with occasional hallucinations and at the same time surprising knowledge belonging to an earlier date.

The periodic excitements, in particular, are almost without exception accompanying phenomena of the final stages of dementia præcox. These cases are usually to be found in vast numbers in large lunatic asylums, and, owing to their strange habits and sudden excitements, together with their self-possession and capability for work, give to those institutions their unique character. But, however seemingly different may be the outward picture of individuals amongst these multitudes, the fundamental disturbances, which we have so often diagnosed, in the province of sensation and of action, are common to them all.

LECTURE XXII

DEMENTIA FROM COARSE BRAIN LESIONS

GENTLEMEN,—If we have expressed the hope that it will be possible to differentiate yet further affections of the cortex from the great provinces of general paralysis, we must at the same time remark that we do, of course, already easily distinguish from paralysis those diseases of the brain which produce no extensive, but rather, I may say, circumscribed, changes in the cortex. You must, then, certainly not mistake for a general paralytic the peasant woman of fifty-eight years whom I will now bring before you. As you will recognise at the first glance, the patient is powerless on the right side. The right arm lies in a semi-flexed position close to the body ; the hand which hangs down is of a bluish-red colour, somewhat puffy and cold. In passive movements you notice distinctly a strong spasm in the slightly crooked fingers ; one succeeds in straightening them only by using a certain amount of force ; the straightening of the arm meets with a slight resistance also. The patient is herself able to accomplish only trivial movements of the fingers and arm. The right leg drags a little in walking. The sensation to touch and to pricking is very much reduced on the right side, but it seems to be somewhat impaired on the left side too ; at least, the patient makes no defensive movement. The knee-jerk on the left side is normal ; on the right side it is exaggerated, and here slight ankle-clonus also exists. In the movements of the eyes, in the pupils, and in the retina no disturbance is to be noticed. The pulse is rather full and hard.

A closer examination of the patient is rendered the more difficult as she is completely *aphasic*. The only words that she is able to pronounce and always repeats are " I will go to bed." It can be seen, however, that she understands simple language.

When asked to give her hand or to show her tongue, she is generally able to comply, though very slowly and with difficulty. At the same time, an inclination is shown to repeat the same actions, even if afterwards we ask something else of her. She only gradually accustoms herself to new instructions, and apparently does not understand complicated requests at all. She makes a faint effort, if requested, to stretch out the disabled hand, but is quite perplexed if you ask her to take hold of the right ear with the left hand. She then perhaps puts out her tongue, shuts her eyes, or makes similar mistakes.

At first it is of course difficult to say whether this behaviour depends on inability to appropriately carry out properly-willed movements, and consequently on apraxia, or upon incomplete understanding of the requests. The fact that in alternating requests the patient has at first the decided inclination to repeat the former movement, and then corrects herself, is, perhaps, in favour of the first opinion. But, on the other hand, one does not notice in the patient's certainly very limited, independent actions of the will that she has special difficulties in carrying out her intentions, or that she acts altogether in the wrong way.

But, further, one sees with absolute certainty that, as a fact, the comprehension of words has suffered. If we lay two different pieces of money in front of her, with the request that she is to take the larger or, perhaps, that of the highest value, the sense of the request remains evidently quite obscure to her. She takes first one and then the other in her hand, and lays it down again, looking interrogatively at the doctor, without knowing what is required of her. If, however, the object itself offers a certain clue for finding out our meaning, she carries it out without much delay. Thus, with a key she makes the movement of locking, opens a match-box and takes out a match, though with her one hand it gives her a good deal of trouble ; she even opens a knife with the help of her teeth. A doctor whom she happened to know formerly she greeted very heartily, nodding to him specially at each visit, and understood that he was spoken of if she was asked to single him out from amongst the others. Now, too, on my asking her, she easily finds out the ward doctor, and nods to him repeatedly in a friendly manner, while she sedulously murmurs away to herself her monophrasic sentence.

From these experiments we venture to conclude that the patient takes in and realizes pretty well in general the impressions offered,

but that she understands only imperfectly the words addressed to her. There also exists, along with the complete inability to speak, a *marked degree of word-deafness*. The patient presents no striking colouring in her emotional attitude ; she is in general equable, troubles very little about her surroundings, and sleeps a great deal. When taken notice of, she is friendly ; if she is neglected she weeps—as, for instance, when they had forgotten to take her into the garden with the other patients. She expresses neither wishes nor fear. Excitements have not been observed. Her behaviour is quite in order. She keeps herself tidy, eats of her own accord, greets the doctor, and conforms willingly to the prescribed rules.

During the four months that the patient has been with us her condition has not changed substantially, but in the beginning she was not clean, had to be fed, and seemed more demented than now. This circumstance in itself would be sufficient to repudiate the suspicion of a general paralytic affection, since, when that is the case, the occurring symptoms of the central seat of disease, with very rare exceptions, usually disappear again very quickly. We are therefore forced to assume that in this case a more *circumscribed damage to the cortex* must have taken place in the region of the central lobe, which must have encroached on the third frontal convolution and also on the temporal lobe. As a fact, the patient has been through two apoplectic fits—the first, which was only slight, eight months ago ; the second three weeks later, being more severe. After the first attack she could still attend to her housework ; after the second almost complete palsy of the right arm and loss of speech came on. At the same time, the patient was sleepless, apprehensive, confused, and excited, wished to put an end to herself, and once even went into the river, but came out again of her own accord. Before this she had always been healthy and cheery. She had had an illegitimate child in her youth. Her grandmother was insane.

We may find it difficult, from want of more definite knowledge, to form an absolute opinion upon the nature of the disease (under discussion) in the cortex of the brain, yet, in consideration of the repeated attacks, the sudden appearance of disturbances without symptoms of an increase of pressure in the cranial cavity, and its long unchanged duration, a *vascular obstruction* will first occur to us. Affections of the bloodvessels are very frequent at the advanced age of our patient ; besides, the great change of the

whole mental life, especially in the excessive dulness of the patient, which would scarcely be explained by a circumscribed damage to the cortex alone, points with a certain probability to a more general participation of the cerebral cortex in the process of the disease. We might perhaps venture to think that *arterio-sclerotic* processes in the bloodvessels of the brain have in the first place brought about general disturbances of nutrition and then local obstructions.

As alcoholic and syphilitic injuries to the bloodvessels are recognised causes of such affections, we took these into account, though for the most part these affections usually make their appearance in the age of involution and in old age, without palpable cause. As, however, the possibility of syphilis was not, at all events, to be excluded, we tried to help the patient by administering iodide of potassium, unfortunately without success. The patient has, perhaps, produced now and then a single word beyond her customary sentence, or may have shown herself a little more active, but on the whole we must make up our minds that a substantial improvement of this *apoplectic dementia* will not take place; on the contrary, that sooner or later the malady will make further progress through new attacks.*

Very much more serious is the condition of the farmer, aged thirty-nine, who has been brought to us to-day from the surgical hospital. You will see at once that the left side of his face is rather swollen, and is all over a yellowish-green colour, and the conjunctiva also seems suffused with yellowish-red. The patient's expression is dull and stupefied. A thick, purulent, very offensive discharge trickles drop by drop from the left ear. He does not answer questions or trouble about his surroundings, and murmurs incomprehensibly to himself. Now and then one understands some of his broken sentences—"We will go out and work our utmost." As soon as one makes the attempt to examine him more carefully, the patient becomes irritated, vigorously pushes us away, and threatens to be violent. One sees, too, that he mistakes people, takes me for the magistrate instead of for the lecturer, and has no idea of where he is or of what one wants him to do. After some time he gets up, and tries to go out at the door, and can only be held back by force. Any examination whatever is impossible, owing to his want of comprehension and

* In the few months that have elapsed since the discussion of the case the condition of the patient has not changed.

his distrustful and sturdy opposition. We can see, however, that the pupils are sensitive to light, and that the movements of the eyes are apparently free. Symptoms of paralysis are absent.

This condition is explained by the actual fact that six weeks ago the patient fell from the beam of his granary on to the threshing-floor and remained completely unconscious. The doctor who was called in found him bleeding freely from the nose, mouth, and left ear, and said that at the time little pieces of brain-substance the size of peas were coming out of the same ear in large quantities. The pulse was weak and slow, the breathing stertorous and irregular, and from time to time vomiting came on. In the course of the day three violent ordinary epileptiform convulsive attacks took place. The left side of the head was much suffused with blood; the left collar-bone was broken; there was also found to be an abrasion on the sacrum and a contusion in the region of the left hip-joint. Next day the vomiting ceased, also there was no return of the convulsive attacks. The pulse remained at from fifty to sixty beats, and was irregular, with *Cheyne-Stokes* breathing. Blood still flowed from the left ear.

It was only on the fourth day that the patient recovered consciousness, with an improvement of the pulse, but he remained very stupefied, did not recognise his surroundings, and was unable to speak in connected sentences, producing only single broken words. After about fourteen days he could speak rather more connectedly, and now and then recognised people correctly, but had no comprehension at all of his condition, thought himself quite well, had a strong desire to run about, to go to see other people, or to work in the field. He often committed absurd acts, went to bed in strange houses, and was irritated if anyone wished to prevent him. He opposed the treatment of his ear, from which offensive matter was discharging, with active resistance, and on that account had at last to be taken to the surgical hospital. There was never any rise of temperature. In the hospital it proved to be equally impossible to make an accurate examination of the patient and to treat him suitably. He struggled in the most violent way against all interference, refused food, did not sleep at night, but wandered restlessly about, tried to escape through doors and windows, talked to himself in a confused way, and did not know where he was. As he was very disturbing to the other patients, he was removed to our hospital.

The psychical condition of our patient must be described as a serious *clouding of consciousness*, with grave disturbance of the comprehension and working-out of external impressions, and also of thought. Whether word-deafness exists besides cannot be decided, on account of the inaccessibility and dulness of the patient. The cause of this condition is, of course, the *injury to the head*, which has evidently produced a fracture of the skull. On account of the severity and long duration of the disturbances, we shall have to trace these back, not to a simple concussion of the brain, but to an increase of pressure in the cranial cavity. This is most likely to be accounted for by hæmorrhage, although, in spite of the want of external signs of depressed fracture, the splintering of portions of bone cannot be excluded with certainty. Indeed, this would only produce such a severe stupefaction if it had led to inflammatory processes. There is, however, no ground for this assumption, on account of there being no febrile symptoms.

The absence of symptoms of the central seat of disease is very striking. It may be possible that more subtle disturbances of this kind exist of which we cannot be certain owing to the condition of the patient, but in any case evident palsy is absent. Perhaps this circumstance might also be in favour of the opinion that we have to deal more with ordinary symptoms of pressure than with a circumscribed injury to, or destruction of, the cerebral cortex. As is shown by the hæmorrhage from the ear, the spot of the skull fracture certainly lies behind those regions of the cortex of which the destruction would produce palsy. Finally, whether the observation with regard to the oozing out through the ear of brain-substance is quite to be relied upon, I must still leave *sub judice*. The course of the case up to now, and also the present condition, are, on the whole, most in favour of the prolonged duration of a considerable pressure on the brain, in consequence of hæmorrhage in the cranial cavity. As fever is absent, it appears doubtful whether the purulent discharge from the ear comes from the cranial cavity or only from the internal ear.

Any operative interference on the surgical side is not thought to be expedient at present ; one must rather try by washing out to improve the suppuration of the ear as far as is possible. If the psychical disturbances are really only dependent on a hæmorrhage, there is reason to hope that they will gradually improve

with the absorption of the same. On the other hand, suppuration of the ear always means a considerable danger for the patient.*

The case of the day-labourer, aged eighteen, upon whom we have to pass an opinion with regard to his being able to work for his living, will serve to show you what may be the future fate of such patients who have suffered from a severe injury to the head. The patient, who comes of a healthy family, and who, with average talents, was industrious and well-behaved at school, eighteen months ago was trying to come down a ladder from the fourth story of a new building. As it slid on the slippery support, he sprang off, but missed the scaffolding-planks, and fell as far as the first story, striking the right side of his forehead. He was brought home apparently dying. The right side of the face was very much swollen; blood flowed from the mouth and nose. The patient was completely unconscious, and only after some days came to himself. After the swelling of the face had subsided, it was seen that the sight of the right eye was entirely lost. The patient complained, in addition, of headache and continual cough. It was said that he had also vomited some blood. The condition improved quite gradually, though his father had already noticed, in the first few months, that he was changed in his whole nature. The formerly good-natured and tractable lad was easily made angry, and was very excitable, had a tired expression, and was no longer of use for work of any kind. Sleep and appetite were good, but small quantities of sugar were found regularly in the urine. The patient himself complained much of feelings of giddiness. The examination of the eyes showed atrophy of the optic nerve and changes in the choroid of the right eye, and at the same time almost complete blindness. A fracture of the roof of the orbital cavity, involving the groove of the optic nerve, was considered the cause of this disturbance.

In the further course of the case, according to the father's account, certain changes in the psychical province developed also. The patient became forgetful, could remember nothing, and behaved like a little child, did no work, ran about aimlessly, and had to be looked for, because he did not come home at proper times. He played with children, would stand for hours

* The patient died four days later through the setting in of hyperpyrexia. The post-mortem examination revealed a double-sided fracture of the middle cranial fossa and of the petrous bone, a severe hæmatoma of the dura mater, and a purulent meningitis proceeding from a suppuration of the left middle ear.

together looking at some canaries, and showed no inclinations consonant with his age. "His understanding does not grow with him," said the father in a very significant way. Occasionally he was said to have had days on which he was very fretful and irritable, "played the fool and was very silly," addressed elderly people as "thou," and behaved with impropriety generally.

If we now look at the slightly-built and moderately-nourished young man, we can no longer see any external trace of the accident, but the right eye is blind, and slight paresis of the abducens muscle also appears to exist. The right side of the face looks a little more flabby than the left. The tendon reflexes in the arms and legs are very active; the hand-grasp is stronger in the left than in the right. But neither movements nor sensibility show disturbance of any kind whatever. The urine shows 1 per cent. sugar, which we have reduced by one-half by suitable nourishment.

The patient is collected, clear as to time, residence, and his position, and gives consecutive information in answer to the questions addressed to him. Since his accident he has suffered from headaches, and is very forgetful. From time to time he becomes giddy, everything goes round in a circle, but without his falling down. Work has become very difficult to him. His knowledge of arithmetic is very good indeed, while he knows neither the capital of Baden nor the names of the Grand Duke or the Emperor. The chief towns of France and Austria are also unknown to him. He can only specify very few of the places and rivers in Germany. He has the most indistinct ideas about the war of 1870. He is able to repeat the Ten Commandments, but does not know why the Easter festival is kept.

It may appear doubtful whether this deficiency in his knowledge can be merely looked upon as morbid. The patient was not exactly a bad scholar, but in a treatise by his former teacher which was forwarded to us it is expressly pointed out that young people who at school have not acquired any matured understanding of the subjects taught often forget everything again that is not recalled in daily life with surprising rapidity. Still, we shall be quite justified in referring to morbid loss of former knowledge the inability of anyone who has left school four years ago and Sunday-school two years ago as an average scholar, at all events, to tell the names of the Prince and of the capital of the country.

At the first glance, the patient's behaviour presents nothing special. Upon further observation it can be seen, however, that he has very little inclination to occupy himself, and would much rather idle about. But especially he soon showed an insubordinate arrogance, and would bear no contradiction, was rude and forward to his much older fellow-patients, calling everyone simply "thou," was abusive in ugly terms directly everything was not quite as he wished, and after those outbreaks tried to put himself forward as the aggrieved person.

These experiences agree entirely with the father's description. If we take into account the certificate of his former teacher, in which the very praiseworthy conduct of the boy was distinctly emphasized, the father's statement that a *change in his nature* had taken place since the fall gains in probability. In addition there is evidence even now of a fracture of the skull, indicated by the atrophy of the optic nerve and the quantity of sugar in the urine, also similar changes of character have often been observed after severe injuries to the head. Zola has evidently based his well-known description in the "Assommoir" on some such observation. We may therefore certainly take it that the patient's forgetfulness, his poverty of ideas, his want of mental activity, and, finally, his irritability and loss of finer feelings, are not only morbid, but are directly the results of the injury sustained. The slight attacks of giddiness, about which, of course, we only know from the patient's own statement, would also be in favour of this. Indications of epileptic disturbances after such injuries are not uncommon. Perhaps the patient's ill-temper, mentioned by the father, which reminds us of similar disturbances of the epileptic, would so far also count, but the statements about it are too vague; besides, we could establish no periodicity in the very short time we have had for clinical observation.

In this case also *hæmorrhage a in the cranial cavity* has apparently taken place at once, upon the pressure of which the long duration of the initial loss of consciousness probably depended. Yet it must appear doubtful whether the still-existing psychical change may be looked upon as the after-effect of the increase of pressure at that time, possibly as the result of the disturbances in nutrition produced through it. Such mental and emotional states of weakness following injuries to the head seem much more often to occur when a rough laceration and hæmorrhage in the

brain-tissue has not taken place at all. Many experiences are in favour of the fact that a very violent *concussion of the brain* can lead to subtle damages, which, subtle though they may be, produce the particular kind of picture here described, oftentimes enriched by distinct epileptic features and especially by impaired capability of resisting alcohol. It is not uncommon for all these disturbances to become more markedly prominent only quite gradually and even a long time after the injury has taken place. As a rule, the future prospects are unfavourable. Even in those cases where healed-up scars and depression of the bone offer a guide for operative interference, a successful result is usually absent, or only very temporary.

LECTURE XXIII

SENILE DEMENTIA

GENTLEMEN,—At the very beginning of this course of lectures you learned that melancholia was a disease of which the appearance seemed to be connected with the general failure of strength and vitality in old age. There are also a number of other mental disturbances, which appear most frequently in the years of reversion, a time when the power of resistance is reduced. The various forms of maniacal-depressive insanity are among the most common of these, and so also is paralysis, especially in women. Less common are epilepsy, and those forms of insanity which are not connected with any particular time of life, such as poisoning and toxic infection of all kinds, whether acute or chronic. Finally, there is a rather large group of disturbances which bear the stamp of the mental decline characteristic of old age even more distinctly than melancholia. One of these forms has already been fully discussed in the senile delusion of persecution.

Another closely-associated form is presented by a shoemaker, aged fifty-nine, whom you would certainly suppose from his appearance to be ten years older. His physique is poor, and he is very imperfectly nourished. His skin is wrinkled, withered, and pale. His teeth are very defective, and the gums are much shrunken, while there is a viscous coating on his tongue. His pulse is tense but weak, the heart-sounds are feeble and clear, and there is slight emphysema. The abdomen is very tense and rather swollen, but nowhere sensitive to pressure. No disturbance of the nervous system can be discovered.

The patient is collected, and is clear about time and his place of residence, but has difficulty in understanding us, and is slow in answering, often letting the question be repeated several

times. He knows the people around him only to a certain extent. He knows that he has seen them before, and that they are doctors, but he cannot remember their names or any other details. He makes uncertain statements about his age, although he does sums, slowly indeed, but generally correctly, and can tell the date of his birthday. His school knowledge fully corresponds to his degree of education. On the subject of his illness he tells us that apprehension came over him six months ago, when his brother, with whom he lived, fell from a beam in the barn and broke his neck. Since then he has grown sleepless and restless, and has been very much worried to think how he is to bring up and support his brother's ten children. He has not been able to work as he did before. He has not been able either to live or to die. Now his hands are so hot, and the heat often rises to his head. His stomach is not working now. He can only take fluids, feels a cramp rising up, which almost chokes him, and has no stool for many days together. He reproaches himself, too, about old stories, little pieces of sharp practice he has been guilty of years ago. After meals and at night the apprehension comes over him so that he cannot help screaming, and does not know what to do. They might free him from his stomach-ache and give him a purgative. His food does not go into his stomach now, but flows down past it into his scrotum, for his stomach has grown up. There is a stone in it, and a hairy beast. His belly is as hard as stone, and will burst soon if it is not cut open. He cannot swallow or eat at all now, and he would rather die. Everything comes up again because he is quite full already. He cannot get air to breathe now, and cannot pass any urine, because the water does not go into his bladder. They might have mercy and compassion on him, and let him run out into the open fields. His misery is as great as the sea.

With these expressions the patient gets very much excited, laments loudly, and utters peculiar barking shrieks. But he grows quiet again remarkably quickly, and gives quite well-ordered answers to questions about his former life, with a half-laughing manner, and without any signs of emotion. Nothing else is noticeable in his behaviour except the signs of great physical weakness.

We have a state of depression here which at first reminds us very much of the melancholic illness we have seen before. There is a difference, however, in the great predominance of the hypo-

chondriacal ideas as compared with the delusion of sin, which is hardly even indicated, also in the senseless import of the ideas expressed, and, finally, in the superficial nature of the depression shown in the sudden change from violent outbursts of despair to perfect tranquillity, and even to an almost cheerful mood.

With this there is associated a further disturbance, which is hardly noticeable in ordinary conversation, but proves to be very marked on closer investigation. This is the pronounced *inability to retain new mental impressions*. While the patient can still command the ideas he has formerly gained with a fair amount of certainty, it is evident that he is now quite unable to retain new impressions for any length of time. If you show him an object or a picture, and ask him to give it special attention, he is unable, after only from half a minute to a minute, to tell what he has seen even in half the cases. To estimate the full severity of this disturbance it must be considered that some fairly feeble-minded paralytics can remember what they have been shown even hours after. This profound disturbance of the power of retaining impressions, associated with a good memory concerning ideas formed long ago, is a characteristic of real *senile dementia*. It is well known that we meet with slighter indications of this symptom even in normal senility. In conjunction with the weakness of judgment shown in the senseless nature of the delusions, and with the superficial nature of the emotional agitation, this discovery indicates that the depression present here is the manifestation of a peculiar dementia due to the morbid changes of old age. The hypochondriacal nature of the ideas is also worth noting in this connection, as even in the mental condition of normal old age the course of thought is to a great extent monopolized by care for the subject's own physical weal or woe.

The real importance of what has been established in this case lies in the fact that senile dementia is of its very nature incurable, since it depends on the destruction of several constituents of the cortex. While in melancholia we may often hope for the complete restoration of our patient's health, in spite of very stormy and severe symptoms, we must make up our minds to an unfavourable result where there is proof of senile dementia even if the disturbances at first seem trivial. After the disappearance of the depression and the excitement the end

will always be a high degree of mental and emotional feebleness. It may, however, still seem doubtful at present if there is any definite boundary between melancholia and states of real senile depression. Perhaps the picture of melancholia is only altered in degree by the stronger admixture of senile features, and so is brought to a more unfavourable termination. I cannot at present take up a decided position towards this question, but must be contented to point out that the great failure of the power of retaining impressions, as it is found in our patient, sets the stamp of senile dementia on this particular case, and so makes the prognosis very gloomy.

With regard to the previous history of our patient, I must tell you that he belongs to a healthy family, and was clever at school, but was always delicate, and had a long and severe illness, apparently an affection of the lungs, thirty years ago. He never married. He came to us three months after his brother's death, and was then quite collected and free from confusion of ideas, but was apprehensive. He begged for pardon, and said that "they" wanted to murder him, to cut his belly open. He had transient attacks of violent excitement, when he clutched on to things, was anxious to get out, screamed senselessly and monotonously, and talked in a very confused way, but generally soon grew quiet again. His nutrition sank continuously, although he sometimes took food fairly well. Later on he had regularly to be fed with the tube whenever he did not eat enough.

This rapidly advancing physical infirmity, which cannot be explained satisfactorily by external conditions, is in full agreement with our general experience of the final stages of senile dementia, and must warn us that the patient's strength will probably give out very soon. Even now his treatment is very difficult, as he violently resists the artificial feeding, and is often very restless and troublesome. We have tried to secure him a little rest by means of moderate doses of opium, but with poor results. But prolonged baths usually have a fairly soothing effect, and by their means we also anticipate the very considerable danger of bed-sores in the much emaciated patient.*

You will recognise the characteristics of senile dementia

* In spite of careful nursing the patient died after nearly five months' residence in the asylum, with progressive loss of weight. The post-mortem showed no tangible cause of death.

more clearly in a woman, aged seventy-two, who was brought here six months ago. She had always been mentally and physically healthy, married at the age of thirty, and had four children, of whom two are still living. We could learn nothing of any heredity. This woman has had a great deal of trouble ever since her husband's death, which occurred seven and a half years after her marriage. But it was only about a year ago that a great change took place in her, although she had complained of headaches and giddiness for some years. The patient gradually became forgetful, was confused as to time, and did not even know her way about her house, could not remember whether she had had her meals or not, and mistook people. She thought her daughter was her sister, and often spoke of her parents, long since dead, as if they were still alive. She also showed a certain degree of restlessness. The patient became irritable, peevish, and distrustful, would not go to bed in the evening, and got up early before dawn. She rummaged about aimlessly, wanted to go out, could no longer do her work in an orderly way, and had a capricious appetite.

The patient is small and bent, with wrinkled features and white though still fairly abundant hair. Her state of nutrition is below par, but otherwise, apart from trembling in her hands and irregular action of the heart, she shows no very striking physical defect. She understands the questions put to her correctly, though often with some difficulty, and only after they have been repeated. It appears from her answers, however, that she is quite vague about time, place, and surroundings. She thinks she is here at a wedding, and imagines she knows all the people in the place, though she cannot tell their names. She complains herself of having become so forgetful—"I cannot get hold of things." She feels so much alone, and has not troubled about things. She sometimes gives the year of her birth, and sometimes some other figure, as the date of the present year, says alternately that she is thirty or sixty or less than twenty years old, and is very much amazed at being addressed as "Old lady." She is quite unconscious of the grossest contradictions in her statements of time. Thus she asserts that her daughter is two years younger than she, that her father is sixty, when she has just given her own age as sixty, that her child is three years old, and so on. She says that she is living with her parents and grandparents, and calls herself by her maiden name. The

Grand Duke's name is Leopold, and the coins she is shown are gulden and kreutzers.

After a little persuasion she quite agrees that she is going to be married soon, and says that a man from the neighbourhood comes to look out for her every day. In other matters, too, she is easily persuaded of anything whatever, and assents when she is told that she had a visitor yesterday, and went for a walk. She spins out such suggestions at greater length herself, and knows who it was that came and what he brought her, and where she went for her walk. But it is very remarkable that, in spite of her accessibility to persuasion, she cannot be led into senseless statements on any other subject than the order of events in time. If you say to her that snow is black, she answers, "Yes, certainly, when soot falls on it." Blood is not black, "but yet dark." Cherries are green "at first, but afterwards they turn red." She understands these contradictions quite well, and often shows a sense of humour. To the question if a thief is not an honest man, she replies, with a laugh, "Yes, but we won't go into that"; and when I tell her she has stolen herself, she answers readily, "I don't usually, but I would have my stupid cough stolen at once."

The rapidity with which the ideas aroused fade again is exceptionally striking in our patient. She forgets everything that happens in a few minutes, and often almost in a moment. She complains to the doctor, immediately after he has given her an injection, that a girl has been there and pricked her. Pure inventions take the place of the real events. Once, when the patient had tied a cloth round her foot, she said in close succession, first that her shoe had come off, and that she had been obliged to tie it on again, then that she had made herself a bandage because a piece of wood had flown against her foot, and, lastly, that the doctor had hit her on the foot, and so she had been obliged to tie it up. When experiments were made of showing her pictures and objects, more than a quarter of the impressions were forgotten after only five seconds, while after thirty seconds only a quarter remained, and later none at all. That the patient herself noticed the fleeting character of her ideas is evident from her remark, "I don't know; one cannot hold things any longer in one's whole inside."

The patient's mood is indifferent on the whole, but occasionally peevish, though often merry, with a tendency to joke.

She frequently shows a certain degree of unrest, packs up her belongings, and wants to go away to her parents or to the wedding, declares that she has a child in her quilt that must be christened, and is rude when anyone tries to put her to bed again. Her sleep is very much affected by the restlessness, but she takes a sufficient quantity of food, and keeps herself clean with a little help.

The most prominent feature of the case is evidently the almost complete failure of the *power* to retain impressions, which far exceeds anything we have observed in other forms of disease. The single ideas aroused by subjective and objective occurrences fade again so quickly that absolutely no connected chain of ideas ever comes into existence. Besides this, there are many indications that clear impressions are far more slowly arrived at than is the case with healthy people. Hence many of our patient's ideas vanish before they have ever really become clear. It is easy to understand, to a certain extent, how the united effect of these two disturbances may produce the condition presented by her, which we will call "senile bewilderment."

The great prominence of this inability to retain impressions in the more severe forms of the insanity of old age seems to me to justify the view that those states of depression and excitement in which it is a leading feature, and so increases the probability of an unfavourable prognosis, are also to be considered as varieties of senile insanity.* If further experience shows that this view is correct, we may perhaps have found a criterion for the distinction of melancholia, as we have previously defined it, from real senile dementia.

We must, however, recognise that the interpretation of those cases of disease which occur at the beginning of old age is often very difficult. Before you sits a woman, aged sixty, in whose case a whole series of diagnoses might be entertained. This woman is said to belong to a healthy family, and to have been well herself until a year or two ago. In the last few years she was avaricious and suspicious, afraid she would be robbed, and took unusual precautions against what she thought were bad neighbours. A few weeks before her admission, which took place six months ago, she became quieter, and grew very apprehensive, prayed, and got out of the window at night,

* The patient has now been a year and nine months in a nursing asylum unchanged.

and went to a neighbour, begging to be allowed to stay with him. Next night she climbed right on to the roof, and was taken in through a dormer window, resisting violently. She showed great apprehension, and wanted to hand over her money to her neighbours, because she thought that the devil was in it. Sometimes she talked quite rationally, and remembered everything that had happened.

On her admission the patient was mute, sat straight up in bed, absolutely refusing to be put into any other position, and resisted every effort to influence her. Next day, however, she carried out simple orders, showed well-defined catalepsy, took up the attitude of a preacher, standing on her bed with her arms raised on high, and would not answer any questions, only saying twice shortly, "Go away." She took no food, and refused to urinate, so that the catheter had to be used. Afterwards she stripped herself naked, and crouched in that condition on the floor, or lay down under the bed. It was not till a week later that she suddenly began to talk, and apologized for the trouble she had given, saying that she had not been hungry, and could not eat. She was quite clear about her surroundings and her late experiences, and had a vague feeling of illness, but did not really understand how senseless her actions had been.

Next morning she was cataleptic again. She was dumb and obstinate as before, and sat without moving, holding out her thin twist of hair horizontally in her right hand. She showed frequent changes of behaviour in the period which followed. Sometimes there was lively apprehension, and she also seemed to hear voices, for she would look at the ceiling with the question: "What do you want? I am coming immediately." At other times she was more accessible, was pleasant, smiled, and talked quickly and almost incomprehensibly in a low voice.

It is in this condition that you see her now. She sits there, almost entirely apathetic, and does not trouble about what takes place around her. She answers emphasized questions, however, and gives her name, knows where she is, and knows the doctors, but not their names, nor can she name any of her fellow-patients or the nurses. She is confused about time, and makes quite incorrect statements, excusing herself by saying that she has not been able to look at a calendar. She cannot even tell us the year or day of her birth. Her school knowledge, too, is extremely scanty, so far as it is possible to find out anything

about it from her. She has no correct idea of her position, and does not worry about the future nor ask to be allowed to go home. Her mood is indifferent. She often gets into a frightened and tearful condition, but is easily persuaded out of it, and grows cheerful and loquacious, but foolish. She says her head is "good and healthy." Apart from slight trembling of the hands, no physical disturbance worth mentioning can be discovered in this feeble and scantily-nourished woman, who often has to be fed artificially.

We can hardly doubt that, at the present time, the patient presents a marked degree of *dementia* and incapacity to work out external impressions clearly, with poverty of thought, weakness of judgment, loss of knowledge formerly possessed, and emotional dulness. It is true that she has several times shown great excitement at her husband's visits, but on all other occasions the want of deep emotion and the feeble-minded changes of mood are distinct enough. We can hardly take the condition for melancholia, which has passed into mental enfeeblement, as the characteristic depression has been absent from the whole course of the disease, nor has there been the delusion of sin which is usually so prominent in melancholia. The desire for sympathy, which makes melancholic patients so fond of giving an impressive account of their dismal ideas to those around them, has also been entirely absent. In place of all this we are met by a number of symptoms which we have seen already in katatonic illnesses—dumbness, negativism, catalepsy, extraordinary attitudes and actions, abrupt alternations of stupor and accessibility without consciousness of illness, and, finally, hallucinations.

If, in spite of this, we hesitate to suggest katatonia at once, it is because we almost always see that disease appear at a much earlier age, and there are certain features in the history of the case which are characteristic of senile dementia—namely, suspicion, defective ideas of time, and rapid loss of former knowledge. It is true that the power of retaining impressions does not seem to be affected to the same extent as it was in the last patient, but it was impossible to make an accurate examination on the subject on account of the patient's obstinate and apathetic behaviour.

It should, however, be pointed out that the establishment of single katatonic features does not in itself justify the diagnosis of katatonia, as such symptoms are often seen elsewhere—in

general paralysis, for instance. It is, therefore, possible that we may sometimes have to accept as forms of senile dementia cases which exhibit katatonic symptoms, but are not to be confused with the real katatonia of earlier life. At present we are not in a position to answer the question as to the clinical position of this group of cases with certainty, but perhaps it will be possible to do so some day with the help of pathological anatomy. We may be satisfied to-day with having pointed out the peculiar katatonic forms of disease in old age. As far as I can see from my own experience, the prognosis is very unfavourable in these cases. They lead to considerable and often to profound dementia, in which indications at least of the katatonic symptoms generally remain to the end.*

* The patient died after two years spent in a nursing asylum, demented, dull, and negativistic.

LECTURE XXIV

EPILEPTIC FEEBLE-MINDEDNESS

GENTLEMEN,—We have already met with more or less obvious *periodicity* in the phenomena of disease on various occasions. We have learned to recognise large groups of varieties of insanity, which run their whole course in individual, sharply-defined, and sometimes quite regularly recurring attacks. The cause of this periodicity must of course be sought for in permanent changes in mental life, on which we are generally quite unable to put our finger in the intervals. We are in just the same position here as we are in regard to the many periodically recurring phenomena in the healthy body—pulse, breathing, sleep, menstruation, etc.—in which we cannot as yet give any clear reason for the periodicity, although we recognise it. But in the province of disease there is no lack of examples where, side by side with the periodical discharge, a *permanent change* in the personality is plainly seen, showing that, in reality, the individual outbreaks are not independent illnesses, but only the expression of a fundamental morbid condition. The final stages of dementia præcox, with their very frequent periodical excitement, have already afforded instructive examples of this. To-day we shall have to consider another group of morbid conditions, often very similar outwardly, but essentially of quite a different kind, in which very transitory mental disturbances also recur, more or less regularly, side by side with permanent feeble-mindedness.

I will first show you a journeyman joiner, aged eighteen, who has already been in the hospital five times in one year. He is said to belong to a healthy family, but to have lost two brothers or sisters at an early age from convulsions. He had an attack of convulsions himself when six months old, which recurred about every three months at first, and afterwards every month. Often

the attacks came in paroxysms by night as well as by day. Two years and six months ago, and again eighteen months ago, the convulsions were accompanied by bewilderment, apprehension, and hallucinations. It was in this condition that the patient was brought to the hospital for the first time a year ago. After six attacks had occurred in the course of four days, the patient, who until then had been quiet and monosyllabic, became restless and apprehensive. He thought he was going to die, became sleepless, prayed, was anxious to get out, and said that some journeymen shoemakers living in the neighbourhood had stabbed out his eyes with long knives, and put in beast's eyes instead, and had cut out his gullet. He had heard his master say that he was not much longer for this world. He was also confused, forgetful, and giddy in his head. This condition lasted about a week.

Attacks of this kind recurred several times, and generally led to the patient's being brought to the hospital. Here, too, they were often observed, and usually followed a series of convulsive seizures distributed over several consecutive days. The patient then became confused and excited, and expressed hypochondriacal ideas. He said that he was dead, had no blood left, or could not clench his fist, or complained that his eyes were growing so large. Then he thought that attempts were made on his life, and that "they" wanted to shoot him. He saw men aim their weapons at him, became very much irritated, called for help, and ran about apprehensively. After a few hours, or sometimes days, he grew quieter. He still held fast to his delusions at first, but at last admitted that he had been "delirious" again. His weight, which had fallen considerably during the attack, began to increase again rapidly.

In the intervals between these attacks, which used to recur about every three or four months, the patient had frequent, but slight, attacks of convulsions, in which he lost consciousness, and showed tonic and clonic twitchings for a few minutes at a time. Attacks were also observed in which he lay quite flaccid, with his eyes closed, and paid no attention when he was called or pricked with a needle, but shut his eyes tightly if anyone tried to open them. The pupils were dilated, but contracted on exposure to light, and there was transient catalepsy. The knee-jerks could not be excited on account of severe spasm. The pulse was accelerated. This condition disappeared in a few hours.

Lastly, the patient himself complained of quickly passing attacks of giddiness, with trembling and weakness in his hands, "as if an attack were coming." On these occasions he did not lose consciousness completely, and soon recovered.

The slightly-built, pale-looking patient has a small forehead, and the root of his nose is depressed. His ear-lobes are soldered, and his palate is high-arched. All these abnormalities are generally regarded as signs of degeneration. The pupils are dilated, but react well. The outspread fingers tremble, and the skin-reflexes are very active. The considerable decrease of sensibility to pain in the whole body is very striking. You can stick needles through folds of skin anywhere, without the patient's showing pain, but his sense of touch does not seem to be diminished. Physically, you will remark, above all, the patient's great *clumsiness*. He is collected and clear about place, time, and surroundings, but answers questions very slowly and after long deliberation. He does not always understand what is required of him at once, in spite of his perfect attention, and cannot get forward with his explanations. He admits that he is ill, but cannot tell us much about it. He says that the last attacks were quite slight. He has only a very faint recollection of the state of bewilderment. The warders had revolvers to shoot him ; he was in heaven and saw God ; he saw everything he thought of plainly before him. His head is often giddy, so that he cannot think clearly.

Although he did not do badly at school, his knowledge is very scanty. He has absolutely no idea of things and their relations lying outside his immediate daily horizon. His stock of ideas and his judgment are about on a level of those of a child ten or twelve years old. He is indifferent to his fellow-patients and to what occurs around him, so far as it does not touch him personally, but he shows great attachment to his family, and speaks of his dear father, to whom he would like to return. He is also very much pleased at being visited. Apart from the attacks, his behaviour in general is quite orderly. He is certainly rather dull, but he is good-tempered and manageable. It is only when the attacks are coming on that he grows irritated and threatening. He does not occupy himself much, but carries out simple work entrusted to him carefully, though extremely slowly. Considering his marked feeble-mindedness, some sketches he has copied from coloured pictures of animals and plants are very

remarkable. Every stroke of the very naturally executed pictures is reproduced with such care and accuracy that it is almost impossible to distinguish the copy from the original. But when we set the patient the task of constructing simple diagrams from figures given him, he proves quite incapable of executing the work, which demands a certain amount of originality, but is in other respects very simple.

That our patient is suffering from *epilepsy* is proved by the convulsive seizures, which go back to his earliest childhood, recur at fairly regular intervals, and have gradually grown more frequent. He has also had slighter attacks of giddiness, and in the last few years states of semi-consciousness, fully corresponding to the recognised description of epilepsy. His states of languid stupefaction are less usual, and without consideration of the whole picture, they might easily have been regarded as hysterical. The analgesia also would apparently have fitted well with this interpretation, but it did not show the limitation to a particular region so common in hysteria.

Lastly, our patient has, in the course of the last year, developed a peculiar progressive feeble-mindedness, differing essentially from the last stages of uncured mental disturbances hitherto considered by us. It is specially characterized by mental clumsiness and awkwardness, with complete maintenance of collectedness and proper order of thought, apart from the attacks. There is also an extraordinary narrowing of the intellectual horizon, within which, however, the patient finds himself tolerably at home. This is the opposite of the last stages of *dementia præcox*, in which considerable fragments of higher education can often be seen, while capacity for the simplest mental operations seems to be annihilated. The deficiency of memory has led to a profound impoverishment of our patient's stock of ideas. But, contrary to what is the case in general paralysis, the more remote and general ideas have been lost first, while what has lately occurred and is of immediate importance is still very well retained.

Our patient's emotional relations, too, are not universally dulled, as they are in *dementia præcox*, but only circumscribed, although they are far from being developed into higher forms. Selfishness and stubborn obstinacy govern the patient's emotional life, and he also becomes irritable and violent in connection with the attacks. His own person first and then his family always occupy his thoughts, while his sympathy for others is in abeyance.

But he shows a certain external piety, such as we very often find in epileptics. And that he does not take too dark a view of his future, in spite of his hypochondriacal fears, but has "only slight attacks now," exactly coincides with our general experience of such patients. Lastly, the painstaking accuracy in details shown in the patient's sketches is often a very marked feature in epileptics.

All these peculiarities together constitute the characteristic condition known as epileptic feeble-mindedness, which generally develops more or less where the illness has been severe and is of long standing. In many respects, it very much resembles congenital feeble-mindedness, but differs from it essentially in the *feeling of illness* expressed. Often enough this peculiar form of mental weakness develops with alarming rapidity, and it may reach a very high degree in the course of a few years. In the case of our patient, in whom it has evidently made a great advance lately, we must be prepared for its further development in an unfavourable direction. The recognised remedies for epileptic seizures, particularly bromides, are not able to relieve this condition, and do not even seem to check its development.*

A girl, aged twenty-six, who was sent here five weeks ago from the hospital for women, has presented great difficulty in diagnosis. The patient, who was advanced in pregnancy, and was waiting in the hospital for her confinement, became restless, confused, and apprehensive, and ran about aimlessly during the last few days she was there. It was on that account that she was sent here. The gradual development of this condition was preceded by two "attacks." At our hospital the patient was unable to remember anything, and when questioned only answered, "I do not know," but talked to herself a great deal, slowly and with a rhythmic accent, as if she were speaking to someone else. The purport of her talk was quite confused: "Ay, what am I to do then? Ay, what are you doing, then? Ay, so I must die. Ah, where must I go, then, if I cannot die? Fine schoolhouse—always to stay sitting. Ah, where am I to go then? I can always sing. Ah, so the mouse is dead—yet I cannot find it. I can always die. Ah, I must always dance—I have pretty stockings on," etc. Sometimes she answered relevantly, but quite incorrectly—that she was a hundred years old, or thirteen,

* The patient has been for eighteen months in a nursing asylum. He works, but in other respects is very imbecile.

that she was at Mannheim, that her child was the Emperor's. She prattled in an incoherent way all the time, and often seemed not to understand the questions at all, but tried to connect her answers with remarks made by those around her.

Her mood was indifferent and changeable. Sometimes she seemed afraid of being beaten, and sometimes showed an inclination to sing and dance. She obeyed orders at once, and wrote her name and words dictated to her slowly, but in legible, careful writing. But a letter she had to write proved to be a variegated collection of single words and confused recollections of what she had read, ending in an interminable row of figures. Though automatic obedience could not be made out, the patient put out her tongue, without hesitation, to have it pierced. Apart from the signs of her late pregnancy, a great diminution of sensibility over the whole body was the only physical sign worth noticing.

As we had no details of the previous history of the case, a number of diseases might have come under consideration in the interpretation of the patient's condition. The "attacks" which had occurred gave us no definite clue, as they might just as well have been hysterical as epileptic, katatonic, or paralytic. The patient's great mental awkwardness, the difficulty of influencing her, and the absence of strong emotional fluctuations, seemed to us to exclude hysteria, and the picture was altogether wanting in the rather theatrical propensity which seems to be characteristic of hysterical states of semi-consciousness. The patient's talk and writing reminded us very strongly of katatonia, but we missed the negativism, mannerisms, and automatic obedience. The patient evidently understood with great difficulty, in spite of her good will. This is the opposite of the good comprehension and want of attention in katatonia. The slowness and want of sense in her answers seemed to us to depend on defective memory and not on negativism, since she evidently took trouble to answer to the demands made on her.

This feature of her behaviour led us to think of the possibility of general paralysis. We believed, however, that we ought to reject this hypothesis. In the first place, there was an absence of all tangible physical disturbances, except the analgesia, the general extent of which would have pointed to general paralysis rather than to hysteria. But the patient's answers were much more senseless and confused than could have been expected in a paralytic of the same mental activity. This disproportion indi-

cated a *state of semi-consciousness* rather than paralytic feeble-mindedness. At the most, it could only have been taken for bewilderment after a paralytic attack, but the patient's stupefaction was not deep enough for that, and the signs of disablement to be expected in such a case were absent. Under these circumstances, the hypothesis of an *epileptic state of semi-consciousness* seemed to us the most reasonable. We therefore expected the disturbance to disappear very soon.

The clouding of consciousness did, in fact, disappear in the next few days, and we then learned that the patient, whose mother is "nervous," has suffered from attacks of convulsions since she was fifteen years old, recurring every three or four weeks, and then coming in groups, with complete insensibility and occasionally with tongue-biting and other physical injuries. Now and then the convulsions did not appear, but states of stupefaction and bewilderment took their place, lasting about a week. The patient was backward in her mental development, and did not learn much in consequence of her malady.

If we now look at the strongly-built and well-nourished patient, who passed through the puerperium without difficulty, we notice at once that she is quite clear and well ordered, but is mentally on the level of a child ten or twelve years old. She understands simple questions correctly, and answers them relevantly, but shows a very limited mental horizon, extremely little knowledge, and great weakness of judgment. She knows nothing of all those things and relations of things which lie outside her immediate daily surroundings. Her phraseology is awkward, over-circumstantial, monotonous, and meaningless. In the numerous neatly-written letters she has addressed to her relations the number of phrases of greeting and leave-taking is very noticeable. She is quite unconscious of the meaning of her pregnancy, and tells us childishly how she got fatter and fatter from eating a great deal, till at last she could not fasten her clothes. Her mother would not take her out with her on Sundays then, so she got on the stool and looked out of the window. It was quite true that she had had a sweetheart; he always said, "You are a good girl." Her friend had said to her that *she* would not go with him, because he carried on with other girls. So she wrote and refused him, and then her friend went with him. The child was her father's. The Saviour appeared to her, and told her that she should not be beaten, that she was a good girl, and that the child

was her father's. She holds obstinately to this story. Her mood is on the whole exalted. She is only disappointed that since the birth of her child, from which she confidently expected an improvement in her health, the attacks have appeared again. "But," she says, "it only lasts quite a short time now." In reality, she has already had several very severe attacks. The patient is orderly in her behaviour, easily guided and good-tempered, and occupies herself industriously of her own accord.

You will easily see in this patient the characteristics of epileptic feeble-mindedness enumerated above—mental clumsiness, poverty of thought, narrowing of the mental horizon, want of judgment, exaggerated self-esteem, pleasurable hopes, piety, and formality. But strong emotional irritability has not been noticed—at any rate, in the short time she has been under observation. I must add here that, contrary to the general opinion, most epileptics are by no means always irritable, but only at certain times, while in the intervals they are often quite good-tempered and ready to help, though usually in an awkward and unintelligent way. As our patient's relations wish to take her home soon, we will not think of beginning treatment with bromides, from which we could expect but little in any case. The patient can easily begin it at home, if she is placed under regular medical supervision. Under no other circumstances can we advise it, as the danger of chronic bromide poisoning must not be overlooked. To consume large quantities of bromides without a doctor's prescription, as is often done, is a very dangerous measure.*

While the illness went back to childhood in the two cases already discussed, I will now show you a carpenter, aged fifty, who only became epileptic a short time ago. He is said to belong to a healthy family, is married, and has three healthy children, while four have died in infancy of convulsions. He has always drunk a great deal, but worked regularly. Twenty years ago he fell down two stories from a new building under construction, and lay insensible for several days, but got quite well again. During inflammation of the lungs, which he had eight years ago, he was delirious, and twice escaped to go and work outside. Three years ago, without any external cause, a delirious condition again set in, with headaches and apprehension, and lasted a fortnight. Since then the patient has often been irritated with those

* Two months after her discharge from the hospital the patient upset a lighted petroleum lamp during an attack, and was burned to death.

around him periodically. At these times he accused his wife of unfaithfulness, and threatened and ill-treated her, while he got on with her very well in the intervals. Six months ago he became giddy at his work. In going home, he fell and hurt his forehead, and began to be delirious and violent.

When he was brought to the hospital on this account he was clear, but in a very surly mood. He could remember neither the attack nor his excitement, and only said that he had "had it in his head." "What it was I do not know." About a week seemed to be missing from his memory. He complained then that he often felt pricking and twitching in the old scar he got from his fall, and then grew giddy and confused, so that he could not help dropping whatever he had in his hand in the middle of his work. Often he did not know anything afterwards of what had happened. His ill-temper disappeared in a few days. Later on he again complained a few times of passing attacks of giddiness, but in other respects he presented nothing remarkable except distinct feeble-mindedness. He was therefore discharged after having been kept under observation for several weeks.

Very soon afterwards, however, an epileptic attack of convulsions came on outside, and recurred regularly about every five or six weeks. Sometimes several attacks came on in rapid succession, and the patient was often confused for several hours afterwards, running about aimlessly and talking nonsense. Five weeks ago he became sleepless, very much irritated without any cause, violent to his wife and children, and bewildered. He said he was in heaven, preached and prayed in the night, forced his family to pray with him, and finally, a week later, set fire to his bed while in this condition, and so was brought back to the hospital. On admission, he was still not at all clear. He knew his surroundings, but spoke of wanting to go down to the workshop, and said that he had "had it in his head again." The attack had begun with apprehension, a freezing sensation, and giddiness. He saw a bird fly to him, heard singing, music, and bells, and could not remember anything more. He remembered the fire, but did not know how it arose, and it was only later on that he had a dim recollection of having tried to make coffee.

You see that the patient is quite clear now, well ordered in his ideas, and intelligent, but shows a certain dulness of understanding and of thought. He has to think a good while over even simple questions, and is very uncertain in respect of events which

are at all of a distant date. He can give hardly any details of his illness. He knows practically nothing about the actual attacks, except from the descriptions of those around him, and has apparently not asked much about them. He also speaks of giddiness and a feeling of heat in his head as coming on occasionally and always lasting for several hours. He does not talk much, and is rather wanting in ideas, but is natural and in no way remarkable in his behaviour. He occupies himself regularly of his own accord. He tries to make his drinking seem quite harmless. The old scar on the right side of his forehead is painful to touch, and so, in a less degree, are the surrounding parts. But it is not possible to bring on an attack by pressure here.

It cannot be said with certainty if the old injury to the head is in any way the cause of the epilepsy. The length of time that elapsed makes it impossible to assume a connection, except on the hypothesis that slight attacks or night attacks took place in the interval, unnoticed by the patient or those around him. It is also possible that an attack may at the very first have been the cause and not the result of the fall, as may in reality often be the case where at first sight the epilepsy seems to have been caused by an injury to the head. Here, however, another important influence has been at work—that is, *alcohol*. There is no doubt that this can give rise to severe attacks of convulsions, yet it must be considered questionable if we should be justified in classing these attacks together with ordinary epilepsy. In its clinical appearance what is called “alcoholic epilepsy” is distinguished from the other and genuine forms by the occurrence of attacks of convulsions alone, and those in their most severe form, while the numerous “equivalents” of other kinds—slight attacks, states of semi-consciousness, ill-humour, etc.—play no part at all. On the other hand, it is undoubtedly certain that alcohol regularly has an injurious and provocative effect, even in genuine epilepsy.

After such experience, we can hardly consider alcohol to be the real and only cause of the disturbances in the case before us, with its various kinds of epileptoid manifestations. It is, however, conceivable that the original fall may have left behind it a certain disposition to epilepsy which afterwards developed further under the injurious influence of drink. Very likely the patient's ideas of jealousy should be set down to the score of alcohol, and it is possible that it was delirium tremens which had to be dealt with

in the mental disturbance during the inflammation of the lungs. This cannot be the case, however, with regard to the later delirious attacks, even though there are certain features to suggest it. The long duration of the condition three years ago, the very definite religious colouring of the last attack, the confusion of memory, and the absence of a humorous mood, all contradict this. But, of course, we will have to recommend total abstinence from alcohol to our patient most emphatically. Whether he can and will follow this advice is, unfortunately, more than doubtful.*

* The patient died of consumption at home a few years later.

LECTURE XXV

INSANITY AFTER INJURIES TO THE HEAD

GENTLEMEN,—We have already repeatedly had occasion to point to the causal importance of severe *injuries to the head* as the origin of mental disturbances. It cannot, of course, be denied that very often one has perhaps too readily assumed a connection of that kind, especially if long spaces of time lie between the accident and the gradual development of the mental disease. We still know so miserably little about the true causes of insanity that we must be extremely cautious when conclusions as to cause and effect have to be deduced from a lax sequence of time. We shall be entitled to such an assumption if the mental disturbance follows closely on the injury, but especially so if the clinical peculiarities of the case accurately resemble those we have learnt to recognise in other observations of absolute certainty. The case of the tinsmith of forty-four years of age who was brought here a week ago from the surgical hospital illustrates both these conditions. Three weeks ago, as he was going out towards midnight to fetch some water, the patient tripped on the steps and fell down. He was found unconscious, and only gradually came to himself next morning. Some blood flowed from the right ear. Towards mid-day the patient had several attacks of vomiting, and was said to have thrown up about a tablespoonful of blood each time. As to his previous life, there is only to note that for many years he drank deeply from time to time, but could never stand much; he was irritable at such times, and often violent to his wife.

At the surgical hospital, where he was first taken, they found a large contused wound, about the size of a three-mark piece, over the right parietal bone, with swelling and suffusion of blood round it. The right external ear was much contused, and the

whole of the right side of the head, as far down as the mastoid process, was very painful. A small clot was found in the external meatus. Lastly, the region of the third and fourth ribs on the left side was painful. No disturbances which would have pointed to a circumscribed injury to the brain could be made out, but the patient was in a certain state of excitement which made a more accurate examination very difficult. He was quite confused as to time, remembered nothing at all about the more exact particulars of his fall and of events since then; also he had no grasp at all of his serious condition, desiring to be allowed to go home, because he had to attend to his work, wished to have his clothes, resisted all interference, tore off the dressing, and got out of bed at night. The wound healed quickly, and the pain disappeared after a time, but the restlessness and confusion of the patient continued. He spoke of letters which he had received, had no idea how long he had already been in the hospital, and, finally, escaped one night in his shirt and slippers, to hide in a neighbouring new building, where he thought his brother-in-law had told him he would be waiting for him with his waggon. In consequence of this incident he was brought here.

As you will see, the rather poorly-nourished, pale-looking man understands the questions addressed to him, even if a certain loss of memory has to be admitted. He knows where he is, knows the doctors, and remembers the occurrences of the last few days quite well. But his ideas of time are quite confused. Even if one puts him right as to this he very soon forgets it again. On the other hand, he says that he had a visitor yesterday, and that his wife has promised to fetch him away to-day, both statements being untrue. He works out sums that can be done with the help of the multiplication table correctly, but easily gets confused so soon as he has need for mental effort and the marking down of figures. The fact is very striking that he knows almost nothing about his residence in the surgical hospital, and especially about his fall. He gives various freely-invented versions of his case. One time he says that he had fallen down in the factory at three o'clock in the afternoon; another time, shortly afterwards, that he had quickly sprung down three steps on to an iron plate, with a little screw, in order to reach the piston. On being questioned more particularly, he ornaments these occurrences with all manner of details,

evidently convinced that he is giving a true account. But all his statements are singularly vague and indistinct. He has no feeling at all of illness, and urges unintelligently that he must get to work at any cost. He will lose his place if he does not go, for they will think he wishes to shirk. His mood is rather lachrymose, but without deep emotion. He takes the fact that he is in a lunatic asylum quite calmly, and betrays little interest in what goes on around him.

The physical examination of the patient shows a still fresh, non-adherent scar at the edge of the tabular part of the right occipital bone, as well as some smaller scars on the left temporal and parietal bones. The skull is asymmetrical; the features are rather flabby. No nervous disturbances are to be established which would point out a central seat of disease. The knee-jerks are moderately active; also the mechanical excitability of the muscles is increased. As the hearing appeared to be impaired, especially on the left side, a more exact report upon the ear was deemed advisable. Certainly this showed the probability of a double-sided affection of the labyrinth, but, after the aurist's examination, it could not be brought directly into connection with the fall sustained. The patient showed great fatigue from the various physical examinations.

The mental disturbance, which in this case followed immediately on the loss of consciousness after the fall, is essentially distinguished by difficulty of thought and comprehension, and further by the gap in the memory as to the injury itself, by considerable disturbance of attention, and, lastly, by the setting in of spurious acts of memory in place of the real recollections, which were destroyed. The absence of feeling of illness is very curious. According to my opinion, we might, with tolerable certainty, regard those features (some of which we have already met with in a former case) as diagnostic of mental disturbances *after severe concussion of the brain*. So that the clinical picture would also be in favour of the causal connection between the fall and the insanity. As illnesses of that kind can disappear after some time without leaving distinct traces, it is scarcely a question of coarse lesions, but probably of more subtle changes affecting the cerebral cortex, and susceptible of more or less complete recovery. As fever and appearances pointing to a central lesion are wanting in our case, we might assume a simple

concussion of the brain, and hope accordingly for a gradual adjustment of the still existing disturbances.*

The case of a belt-maker, aged sixty-one, who has been sent to us for an expert opinion as to his condition, will show us that the connection between injury and insanity can be of quite a different kind. Eight months ago the patient had an accident on the railway. He was thrown to the ground, together with his wife and his daughter, in a collision in shunting, and was much bruised. The injuries extended to the right knee, the right upper arm, the region of the right malar bone and side of the head, as well as the right metacarpus. From these, however, he quickly recovered. Immediately after the accident the patient, who had been hurled to the ground by the shock, lost consciousness for some moments. When he came to himself, and was looking for his wife and for his daughter, who had been much more severely injured, a doctor who happened to be there said: "It will be the worst for the husband"; he was "terribly excited."

A short time after the patient noticed that a very great change had come over him. He describes with a certain eloquence how very forgetful he was; people, especially, he could no longer remember. He always felt tired and exhausted, slept even in the mornings in the room, and had to make great efforts to be able to follow general conversation, especially in large gatherings of people. In consequence of this he had to give up his honorary posts, as he could no longer attend meetings. In the public-house, too, he began to feel ill at once; he could not stand it any longer. He was obliged to come out and go home.

He was forced to think a great deal about the accident, and to discuss it with his relations. He is also particularly troubled by anxiety as to his own and his family's future, as the action for compensation against the railway company is still pending. His capacity for work is now sensibly reduced. As a matter of fact, he is happiest in his workshop, but he is unable to continue working long at a time, and his hand has lost its cunning for his trade. He no longer takes any real pleasure in intercourse

* We were able to allow the patient to leave the hospital after four weeks' residence. He had still some difficulty in thinking, and was without remembrance of the accident, but otherwise was quite clear. He has now been well for five years.

with others or in mental pursuits, as everything overtaxes him and exhausts him emotionally. He finds reading more difficult than he did formerly; headaches soon come on, and his eyes close. In speaking, he frequently has the sensation as if something were sticking in his throat. Indeed, the patient often comes to a standstill in the middle of words. His walking also is impeded; palpitation of the heart is readily induced, as well as pain in the back and violent perspiration. He often has a feeling as though he must fall down; he cannot get up on to a chair because he at once becomes terrified by the prospect of a fall. The patient's mood in connection with all these disturbances is very depressed.

The physical examination of the well-nourished little man shows strong trembling of the eyelids on closing the eyes, trembling of the tongue, slight strabismus, flabby features, and diminution of the knee-jerks on the right side, and the skin-reflexes are much weaker on the right side than on the left. The strength on the right side appears to be distinctly impaired. On shutting the eyes the patient sways greatly, and then falls down; he is unable to turn round with closed eyes. The sensibility shows no disturbances anywhere. The examination tires the patient extremely little. The pulse is accelerated; with exertion the face becomes very flushed. An accurate examination of the ear has established a diminution of sensibility in the right auditory nerve.

This picture of disease differs at once from the former patient through the important circumstance that in that case, in spite of severe disturbances, the feeling of illness was entirely absent, while in this case the complaints are very emphatic, and the actual traceable disturbances are very insignificant. The one tangible symptom that would be somewhat in favour of a grave affection of the nervous system is the inequality of the tendon reflexes, but it is not to be denied that this may be dependent on the different tension of the muscles. Whether the subnormal state of the right auditory nerve has especially to do with the accident cannot be decided.

From this want of objective signs the whole malady so completely wears the features of psychical origin that the suspicion may even arise as to whether there may not be intentional malingering with the object of obtaining the highest possible compensation for the accident sustained. This question of

shamming in psychical affections following accidents has become of great importance, owing to our legislation, and has led to a zealous search after objective demonstrable symptoms in disturbances of that kind, though certainly with little result so far, since they have been looked for exclusively in the neurological province. But the complaints brought forward by our patient correspond as a whole with those which might perhaps also be brought about by tormenting anxiety. Therefore they point to their originating from *morbid frames of mind*. Indeed, the emotional shock—the fright—doubtless plays the chief part in these clinical manifestations, accurately described by *Oppenheim* under the name of *Traumatic Neuroses*. This also happens even if there has been no sort of injury to the head, and, indeed, if there has been no accident at all, but merely the imminent danger of one. This explains the fact that, apart from accidental concomitant appearances of real injuries, only such symptoms occur here as could be caused by emotional agitation. Hence one will never be able to find out, from a purely physical examination, reliable symptoms of the latent malady, which might not have been invented after all.

We are in a measure protected from being deceived by malingerers by the uncommonly rare *condition taken as a whole*, which shows a continual emotional restlessness, with its effects upon our patient's capability for work, on his pleasure in life, on his mood, and on his physical doings, sensations, movements, daily routine, and so on. As it would appear, this emotional disquietude is to be regarded partly as the after-effect of the violent emotional shock, but also partly as the effect of the "struggle for an income" which so often, in the most torturing forms, follows an accident. The not unfrequent cases in which a substantial improvement of all disturbances sets in with the certainty of an income is at least in favour of this last opinion. When that is the case one is apt to suspect that there has been a question of premeditated dissimulation with an object.

The *psychical* method of investigation can alone lead in the right direction towards meeting this suspicion, and finding out a way which will afford a so far reliable insight into the diseased mind. I have already, in a number of cases of that nature, had the behaviour of patients accurately tested by making them add up one continuous column of single figures, and by

other simple experiments of the same kind.* These methods, the particulars of which I cannot go into more minutely here, have the great advantage that they yield results by which any wilful dissimulation becomes at once distinctly recognisable. Experiments to this end have proved that it is quite impossible, even for those who are accurately acquainted with the governing laws in this department, to wilfully counterfeit the particular morbid disturbances here presented. In the way indicated we have tried to form an opinion as to how far the complaints of our patient are justified with regard to the diminution of his capacity for work, and it has been shown by this means that as a fact he possessed an exceedingly small capacity for mental work as well as an undoubtedly morbid increase of liability to fatigue. It should scarcely be difficult to apply tests of this kind to other departments of mental action, especially as to capacity of comprehension and attention, as to skill, power of recovery, divertibility, and so on. As, in investigations of that kind, wilful deception always betrays itself through deficient agreement of the results one with another and with other experiences, they present throughout the possibility of attaining to entirely assured results.

I can tell you very little with certainty as to the probable further development of our case, but the patient's age is not favourable to a rapid adjustment of the disturbances. It is, however, possible that with a happy settlement of the question of compensation, and with the removal of causes having real foundation, a material improvement and even cure will make its appearance.† Certainly many of these cases take a very obstinate course. The treatment for the moment can only consist in recommending industrious occupation. In addition, there is hypnotism to be considered, which often exercises a beneficial and soothing effect. We have employed it a few times on our patient with moderate results, but expect little lasting improvement from it, as his chief anxiety is not yet removed.

* For particulars of these methods the reader is referred to other works by Dr. Kraepelin, namely, "Ueber geistige Arbeit," p. 8, "Zur Ueberbürdungsfrage," p. 14, and "Psychologische Arbeiten," I.S., pp. 336 and 656.—EDITOR.

† The condition of the patient has distinctly improved in the last two and a half years, after a satisfactory solution of the question of compensation, though a certain reduction of ability and of self-control persists.

The fact that traumatic neurosis, or, as I might rather call it, "fright neurosis," is recognised as being of psychical origin, has brought it into such close relationship with hysteria that, following the example of *Charcot*, cases of that kind are often allocated to that disease without due consideration. In this way one starts with the idea that the latent hysteria would to a certain degree be brought to light through the accident. No doubt hysterical disturbances can be set free through accidents. Yet it seems to me the picture of disease just now developed so essentially deviates from hysteria in its mode of origin, clinical expression, and course, that I cannot hold that simply to mix the two would be an advantage. Meanwhile I will now ask you to look at a "professional acrobat," aged thirty-five. He was brought here yesterday by the police, to whom he had applied for protection, when, having suddenly become apprehensive on a railway journey, he had left the train, and was wandering aimlessly about the town.

As you will see, the patient is quite collected and clear, and gives connected information as to his experiences. We learn from him that nine months ago he fell 20 feet from a trapeze, on which he was performing, happily escaping with only a fracture of a metacarpal bone. But he fell on the back of his head, on which even now two non-adherent scars are visible. After the accident he was unconscious for a long time. The third day after that an attack of convulsions was said to have occurred which, however, was not repeated. Since his fall the patient suffers from apprehensive fears of a peculiar nature. As he relates it, the apprehension comes on with violent oppression of the head, that he may perhaps blurt out indiscreet remarks, particularly *lèse majesté*, especially if he finds himself in a large company of people, although it is altogether contrary to his sentiments. Sometimes the apprehension becomes so great that he holds his pocket-handkerchief before his mouth so as not to speak, but yet he has never said anything really punishable. During the last year he has, from preference, performed abroad, where he had no fear of immediate arrest for offence against the Emperor. Further, on closing an envelope, he had the fear regularly that he must spit into it, and for this reason left his letters to be closed by others. On the journey from Heidelberg to the south, where he was expected, he became ill; he lost consciousness, and, according to the statements of his

fellow-travellers, also had convulsions. Then he was seized with great apprehension, and fearing lest he should be arrested, got out and made for the water. The patient has very little information to give about this last occurrence, and, except for a rather depressed mood, presents no other psychical disturbance. Physically there is to be noted a slight acceleration of pulse, and increased activity of the excitability of muscle, as well as of skin and tendon reflexes, also hyperæsthesia of the skin, especially under the stimulus of cold; the knee-jerk is much stronger on the left side than on the right.

The connection of the disturbances here described with the accident is obviously even more lax as to time than in the previous case. The descriptions of disease also show no inner relation to the emotional shock sustained, but present features which are frequently observed without any outward cause of that kind—*i.e.*, convulsions, semi-consciousness, states of apprehension, irrepressible fears. While in the case of the former patient the nature of his disorders led us to presume that a violent fright must have taken place previously, in this case there is at first no sort of reason for a supposition of that kind. Hence we might conclude that the accident, in this case, is not to be looked upon as the actual cause, but only as the *exciting cause* of those symptoms for which the *special predisposition* of the patient formed the true basis. The convulsions, the semi-consciousness, the increase of skin and muscle reflexes, as well as the sensitiveness to cold, all point to a hysterical source, while the morbid fears belong more to some other picture of disease closely related to hysteria, and occasionally mingling with it, about which we shall gain more definite information later on.

In this case we are accordingly quite justified in speaking of *traumatic hysteria*, in the sense that here, perhaps, not the hysteria, but only the special hysterical, clinical features have been produced through the accident.

This definition is of considerable importance as regards an estimate of the prospects which our case offers for the future. Whilst in the severe forms of fright psychosis, producing a profound revolution in the entire region of emotion, the disturbances only slowly, and under some circumstances never, pass away, we know that hysterical symptoms, though as a rule sharply defined, are usually exceedingly susceptible to influence and

subject to change. Even when of very long duration they can disappear, through some intense psychical influence, as suddenly as they have set in. We shall therefore be better able to look for a rapid improvement, through suitable psychical treatment, in our present case than we were with the other patient. But, as we are able to remove only the symptoms and not the inclination to hysteria, we must expect that sooner or later similar disturbances, with or without cause, will reappear.*

* We submitted the patient to a hypnotic treatment which succeeded very readily, and removed all his complaints. Unfortunately, we could only have him under observation for one week longer.

LECTURE XXVI

HYSTERICAL INSANITY

GENTLEMEN,—The young lady, aged thirty, carefully dressed in black, who comes into the hall with short, shuffling steps, leaning on the nurse, and sinks into a chair as if exhausted, gives you the impression that she is ill. She is of slender build, her features are pale and rather painfully drawn, and her eyes are cast down. Her small, manicured fingers play nervously with a handkerchief. The patient answers the questions addressed to her in a low, tired voice, without looking up, and we find that she is quite clear about time, place, and her surroundings. After a few minutes, her eyes suddenly become convulsively shut, her head sinks forward, and she seems to have fallen into a deep sleep. Her arms have grown quite limp, and fall down as if palsied when you try to lift them. She has ceased to answer, and if you try to raise her eyelids, her eyes suddenly rotate upwards. Needle-pricks only produce a slight shudder. But sprinkling with cold water is followed by a deep sigh ; the patient starts up, opens her eyes, looks round her with surprise, and gradually comes to herself. She says that she has just had one of her sleeping attacks, from which she has suffered for seven years. They come on quite irregularly, often many in one day, and last from a few minutes to half an hour.

Concerning the history of her life, the patient tells us that her parents died sixteen years ago, one soon after the other. Her father's step-brother attempted suicide, and her brother is most fantastically eccentric. I must add that two other members of her family give the impression of being very nervous. She did her work easily at school. She was educated in convent schools, and passed the examination for teachers. As a young girl, she inhaled a great deal of chloroform, which she was able to get

secretly, for toothache. She also suffered from headaches, until they were relieved by the removal of growths from the nose. She very readily became delirious in feverish illnesses. Thirteen years ago she took a place as governess in Holland, but soon began to be ill, and has passed the last seven years in different hospitals, except for a short interval when she was in a situation in Moravia.

It would appear from the statements of her relations and doctors that the patient has suffered from the most varied ailments, and been through the most remarkable courses of treatment. For violent abdominal pains and disturbances of menstruation, ascribed to stenosis of the cervical canal and retroflexion of the uterus, recourse was had five years ago to the excision of the wedge supposed to cause the obstruction, and the introduction of a pessary. At a later period loss of voice and a contraction of the right forearm and the left thigh set in, and were treated with massage, electricity, bandaging, and stretching under an anæsthetic. Heart oppression and spasmodic breathing also appeared, with quickly passing disablements of various sets of muscles, disturbances of urination, diarrhoea, and unpleasant sensations, now in one and now in another part of the body, but particularly headaches. Extraordinarily strong and sudden changes of mood were observed at the same time, with introspection and complaints of want of consideration in those about her and in her relations, although the latter had made the greatest sacrifices. Brine baths, Russian baths, pine-needle baths, electricity, country air, summer resorts, and, finally, residence on the Riviera—everything was tried, generally with only a brief improvement or with none at all.

The immediate cause of the patient being brought to the hospital was the increase in the "sleeping attacks" two years ago. They came on at last even when the patient was standing, and might continue for an hour. The patient did not fall down, but simply leaned against something. The attacks continued in the hospital, and spasmodic breathing was also observed, which could be influenced by suggestion. Hypnotic experiments only produced hypotaxis, suggestions of cure proving not to be lasting. But sprinkling with cold water and the faradic current were fairly effective, even against the disablement which appeared now and then. After spending eight months here, the patient went away at first to her sister's. But after a few months she

had to be taken to another asylum, where she stayed about a year, and then, after a short time spent with her family, came back to us.

During her present residence here, so-called "great attacks" have appeared, in addition to her previous troubles. We will try to produce such an attack by pressure on the very sensitive left ovarian region. After one or two minutes of moderately strong pressure, during which the patient shows sharp pain, her expression alters. She throws herself to and fro with her eyes shut, and screams to us loudly, generally in French, not to touch her. "You must not do anything to me, you hound, *cochon, cochon!*" She cries for help, pushes with her hands, and twists herself as if she were trying to escape from a sexual assault. Whenever she is touched, the excitement increases. Her whole body is strongly bent backwards. Suddenly the picture changes, and the patient begs piteously not to be cursed, and laments and sobs aloud. This condition, too, is very soon put an end to by sprinkling with cold water. The patient shudders, wakes with a deep sigh, and looks fixedly round, only making a tired, senseless impression. She cannot explain what has happened.

The physical examination of the patient shows no particular disturbances at present, except the abnormalities already mentioned. There is only a well-marked weakness, in consequence of which she often keeps her bed or lies about. All her movements are limp and feeble, but there is no actual disablement anywhere. She often sleeps very badly. At times she wanders about in the night, wakes the nurses, and sends for the doctor. Her appetite is very poor, but she has a habit of nibbling between her meals at all kinds of cakes, fruit, and jam, which are sent to her, at her urgent request, by her relations.

What particularly strikes us in this picture is, first, the coming and going, in the form of attacks, of a number of disturbances of different kinds, and, secondly, the fact that they are influenced by external agencies. These two peculiarities show at once and with absolute certainty that we have to deal with the disease here known as *hysteria*. Its nature is, I think, to be found in this: that all disturbances *on the mental side* arise, with very strongly-exaggerated sensations, through the agency of ideas. There is not one of the very varied appearances which might not be called up by violent emotional shock. All that is morbid is the circum-

stance that these disturbances appear even when there has been no cause, or only a very trivial one, for emotional excitement. In the "great attacks" occurrences are repeated in dream-like recollection which the patient says have taken place before. These are, first, a gynæcological examination, to which she was very roughly subjected by a Dutch doctor, and, secondly, a curse pronounced on her by her aunt.

That all the disturbances are produced by ideas having the force of sensations is very clearly shown by the fact that they can at once be put an end to by psychical influences. A contraction of the patient's right hand, provoked by her former doctor by an incidental question about the disturbance, which had often been observed before, was very instructive. Next day the hand was so spasmodically clenched that the nails ran into the skin. After a little instruction in metallo-therapeutics, first a gold coin and then a key was laid on the wrist and relieved the spasm. The faradic brush worked even better, and had a more lasting effect. While real hypnotics had hardly any influence, her sleep was very much improved by distilled water, with harmless additions, and by powdered sugar. All the other various troubles gave way to measures of the same kind, working on the imagination alone. It is true that these results were only temporary, as was to be expected, considering how changeable were the patient's feelings. After a few hours or days, with or without an external cause, one or other of the old symptoms returned.

The capricious nature of hysterical phenomena leads only too easily to the accusation of intentional and artful trickery. But many of the disturbances observed can hardly be imitated voluntarily, or cannot be imitated at all, while others are only accidentally discovered, and have never come to the patient's own knowledge—as, for instance, the limitation of particular departments of perception. These circumstances seem to me to confirm the hypothesis that in this disease we have always to deal with the involuntary effects of excited sensations, referable to the patient's own body.

Again, the morbidity of the general condition, even when disturbances are really feigned or greatly exaggerated, is shown by the patient's whole course of life. Our patient, in spite of her very good mental endowment, has never been able to fill any place in life permanently, but has been wandering for many years out

of the hands of one doctor into those of another. In this we recognise the deep disturbance of the will, which we never fail to see in hysterical patients. In spite of the usual extravagant complaints about her illness which our patient is always pouring out to the doctors in conversation or in letters, she is quite without the power of striving energetically to overcome the morbid phenomena. Indeed, her illness gives her a certain satisfaction, and she resists involuntarily when steps are taken to cure it. Hence the constant appearance of new and ever more remarkable disorders ; hence the exaggerations, the calls for the doctor, and the burning desire to see proper attention given to her own condition, because invalidism has essentially become a *necessity of life to her*.

With her growing expertness in illness, the emotional sympathies of the patient are more and more confined to the selfish furthering of her own wishes. She tries ruthlessly to extort the most careful attention from those around her, obliges the doctor to occupy himself with her by day or by night on the slightest occasion, is extremely sensitive to any supposed neglect, is jealous if preference is shown to other patients, and tries to make the attendants give in to her by complaints, accusations, and outbursts of temper. The sacrifices made by others, more especially by her family, are regarded quite as a matter of course, and her occasional prodigality of thanks only serves to pave the way for new demands. To secure the sympathy of those around her, she has recourse to more and more forcible descriptions of her physical and mental torments, histrionic exaggeration of her attacks, and the effective elucidation of her personal character. She calls herself the abandoned, the outcast, and in mysterious hints makes confession of horrible, delightful experiences and failings, which she will only confide to the discreet bosom of her very best friend, the doctor.

Hysterical insanity is the expression of a *peculiar, morbid tendency*, and can be brought to further development, but not originated, by external causes. In our patient, the beginning of the illness goes back to an early age. We cannot therefore expect that treatment will be successful in altering her personality. Such patients, in whom the selfish development of feeling and will has appeared, in addition to the other symptoms of hysteria, are generally permanent thorns in the flesh of their relations and doctors. The individual manifestations of the disease may

change, but the original soil in which they are always reappearing remains unaltered.*

The case of a little girl, aged five, who was brought here a few days ago will show how far the first signs of hysteria may date back. The child is small for her age, but well nourished. In the bent *tibiæ* and thickened epiphyses you recognise the traces of former rickets. The child understands us well, is lively and affectionate, recognises the pictures and objects she is shown quickly and with certainty, and gives ready answers, though perhaps her knowledge is rather limited for her age. We are struck by a certain restlessness, a tendency to play about and chatter and make faces. Her mood is generally cheerful, but quickly turns to tears and angry stubbornness. Her amorous tendencies are plainly seen. She likes to hold and stroke the hands of the doctors, declares that she is quite particularly fond of them, holds her hands before her face in fun, and peeps between her fingers, and tries to draw attention to herself. She is natural in her general behaviour, eats neatly, is fond of playing, and keeps herself clean. She has soon grown quite familiar with her surroundings. It is generally difficult to get the little girl to bed in the evening, as she would much rather sit up and amuse herself. She grows very naughty then, sometimes, and cries and scratches if she cannot have her way.

The child belongs to a healthy family, but has suffered much from rickets. She was brought to the hospital on account of *attacks* which set in two years ago after influenza. The attacks began with stomach-aches, breathlessness, flushing of the head, perspiration and palpitation, after which she fell asleep and became pale and deathlike. She could be aroused by sprinkling with water, but could not remember what had happened. Similar attacks occurred from that time onwards, at first at intervals of several weeks, but afterwards more and more frequently, and at last in series of five or six in one day. The last attack but one occurred four weeks ago. The child was then taken to an infirmary, where the attack again occurred a fortnight ago. No more have since been observed. The child is said to be backward in her mental development, and to have forgotten much that she used to know. She was treated for some time for infectious colpitis, which she caught from a little friend.

* The patient died of pulmonary consumption after having been one year in the asylum psychically unchanged.

Unfortunately, we have not been able to witness an attack for ourselves. But it can hardly be doubted, from the description, that they were *hysterical*. This appears from the mild form of the seizures and the brief time they lasted, the possibility of cutting them short by sprinkling with water, their extraordinary frequency of late, and their almost complete cessation in the infirmary, after they had been recurring at intervals of only three or four days. Besides these attacks, there is a peculiar alteration of character—great liveliness, sudden changes of mood, the inclination to attract attention to herself, and defective mental development—features we often find in children who are morbidly disposed and have been reared with difficulty. Even if we should be justified in attributing the not very marked arrest of mental development principally to the child's ill-health, the other peculiarities quite resemble those we see in adult hysterical patients. They may therefore be closely connected with the ailment of which the attacks are the expression. The serious alteration of the child's whole character points to the possibility of a further development of the illness later on. General experience shows that slight signs of hysteria very often occur in children, with their great emotional susceptibility, without more severe hysterical illness necessarily following. The disturbances often disappear entirely with appropriate psychical treatment. As a rule, the best result is produced by removal from the family to other surroundings, or perhaps to an infirmary, by ignoring the disturbances, and, lastly, by some simple treatment by suggestion, with or without hypnotism, which often has speedy and permanent results in children, though in adults they are generally only temporary or are altogether wanting.*

Hysteria, as is shown by the derivation of its name from the Greek for "*womb*," was formerly considered a disease of the female sex. It is true that, on account of the greater emotional excitability of that sex, its physical and mental processes are more easily influenced by those ideas having the force of sensations which are the key to the comprehension of hysterical phenomena. Still, male hysteria is by no means uncommon, though its manifestations are, on the whole, less varied. Here I will show you a man, aged fifty, who was admitted nearly a month ago for the examination of his mental condition, after having

* The child was sent to an asylum for idiots a few years later, and was discharged from it in six years well developed.

committed arson without recognisable motives and in a senseless way. He had come home in a state of intoxication, and soaked all kinds of old lumber with petroleum in the attics of the house where he lived and also on the floor beneath. He had set fire to some of this, and precisely to those things which did not belong to him. He gave an evasive answer to his wife, who was very ill, and asked him where he had been. Then he got into bed. The fire, which might easily have grown to large proportions and endangered the life of his own daughter, was very soon discovered, and so were the marks of his stockings, soaked in mineral oil, leading to his bedroom. When he was arrested, the patient admitted his guilt, but could not remember the details of the deed.

The patient's mother was insane, and his nephew was an inmate in this asylum. When he was nineteen years of age he had an accident and hurt his head. He had another accident twelve years ago, when he broke two ribs. Since that time he has been changed. Immediately after the second accident his whining, apprehensive disposition excited remark. He complained very much of pains and oppression, and, although medical examination gave no adequate explanation of them, he feared that he would never be able to work again. His capacity for doing anything did, in fact, remain permanently impaired, so that he drew sick-pay to the extent of from 30 to 50 per cent. of his former earnings. He only worked occasionally, generally letting his wife support him. He wandered aimlessly about in the town, sat in public-houses drinking, and sometimes took small sums from the family money-box to get drunk with, although his family were falling into more and more embarrassed circumstances. Attacks often came on, more especially when he had been drinking, in which he threw himself on the ground, hit out all round him, and became breathless. Latterly his memory failed, and he made no attempt to earn money, but left everything to his young and delicate daughter.

On his admission to the hospital, the patient was rather confused, and had to think for a long time before he could remember simple things. He was not half the man he had been, as he said himself in a tearful mood. Physically, we were struck by impaired sensation over his whole body, increase of the reflexes, chewing, scanning speech, very strong tremors in the limbs, and clumsy awkwardness in all grasping movements. In the next few days great restlessness set in, with vivid hallucinations of

sight. The patient saw animals, particularly blackbeetles, running and flying about in quantities, and at such times lost all clear idea of where he was. It was almost a week before he recovered his bearings as to time, place, etc., on the disappearance of the hallucinations. Evidently this was an attack of *delirium tremens*. After it had passed off, attacks were twice observed which answered to his daughter's description. The patient complained of being unwell, sank to the ground, stretched himself out stiffly, hit out round him with his arms, threw himself about, and bored his head back into the pillows. His eyes were convulsively shut and the pupils dilated, with impaired reaction to light. When the eyes were forcibly opened, the eyeballs suddenly rotated upwards. Pricking with a needle, sprinkling with water, and touching the lips with quinine solution produced defensive movements. The approach of the doctor to the bed aggravated the attack, while the patient grew quiet as soon as he was left unnoticed. Recollection of the attacks seemed entirely extinct afterwards.

At present the patient is collected, clear, and well ordered, though rather clumsy in his statements. He tells us, at great length, about his accidents and the troubles to which they have given rise. He has little general knowledge. His mood is rather inconsistent with his position, for he does not worry much, and has all kinds of plans and good resolutions for the future, though he is easily made to cry. Stuttering speech can still be observed, with very strong tremors of the hands and awkwardness of movement, which evidently increase if his attention is called to them. This makes his writing almost illegible. Sensibility to touch and needle-pricks is somewhat reduced over the whole body, without its being possible to mark out any particular region as specially anæsthetic. Sensations of smell and taste can be excited only slowly and feebly. The field of vision is reduced by more than one-half.

The attacks observed admit of no other explanation than that our patient is suffering from hysteria. The other physical disturbances can also easily be reconciled with the description of this disease. It is specially to be observed that both the attacks and the disturbances of consciousness can be influenced in a very noticeable way by the doctor. The difficulty in writing, in particular, was very much improved by a few hypnotic séances, so that its psychical origin is established with absolute certainty.

As all the disturbances can be traced back to the second accident, we very probably have a case of *traumatic hysteria* before us. It is important that there was no concussion of the brain worth mentioning at the time. The weakness of the arm, the tremors, and the attacks cannot, of course, have been caused by the fracture of the ribs in itself. Hence it is quite clear that the shock alone is to be regarded as the cause, or rather the occasion, of the hysterical change.

The patient may have committed the arson in a hysterical state of semi-consciousness, which apparently set in under the influence of alcohol. This quite accords with our general experience. We know, not only that arson is very common in states of hysterical semi-consciousness, but also that alcohol greatly favours the development, both of hysterical disturbances in general and of particular attacks. The delirium tremens observed by us was a further result of our patient's abuse of alcohol. We must also credit the poison with an important share in the mental and moral feebleness which has developed in the patient in the course of time, and is quite in agreement with the recognised deterioration of drunkards.

Finally, we would mention that the disturbances were not removed, or even alleviated, as is often the case, when the patient's income was assured. For this, too, the alcoholism is probably responsible. It has continually been causing the patient fresh cares, and has greatly reduced his power of resistance. It is possible that permanent and complete deprivation of alcohol may still produce a certain improvement, but we cannot overlook the fact that the patient's prospects are rendered very dark by the signs of mental weakness.*

* The patient's condition gradually improved very much in the hospital, although a certain degree of weakness of judgment and love of emotional excitement remained. In consideration of his dangerous character, he was transferred after six months to a nursing asylum, from which he was eventually discharged.

LECTURE XXVII

IRREPRESSIBLE IDEAS AND IRRESISTIBLE FEARS

GENTLEMEN,—With the lecture on hysteria we entered on a department of morbid mental states in which the *peculiar disposition of the personality* must be considered the real foundation of the malady. We had not to deal with an actual course of disease, but rather with a congenital and permanent change in the psychical attitude, affording a favourable soil for the development of a number of incidents of various kinds. Every possible degree of transition exists between hysterical predisposition and other forms of morbid personality—of “permanent psychopathic inferiority,” as Koch has called it. We will now make a closer examination of a few examples of these conditions.

First you see a schoolmaster, aged thirty-one, who came to the hospital of his own accord four weeks ago in order to be treated here. Except for a low forehead, slight inequality of the pupils, and exaggerated knee-jerks, this slender, lankily-built man presents no physical disturbances worth noticing, yet his pulse has risen to 120 beats during the examination, a sign of great emotional excitability. The patient was, in fact, violently agitated when he had to come here, sank down on his bed, and said that the discussion in the hospital would cost him his life. He begged to be allowed to sit in the hall before the lecture began, so that he could see the audience come in gradually, as he could not face a number of people so suddenly.

The patient is quite collected, clear, and well-ordered in his statements. He says that one of his sisters suffers in the same way as himself. He traces the beginning of his illness back to about eleven years ago. Being a very clever lad, he became a schoolmaster, and had to do a great deal of mental work to qualify. Gradually he began to fear that he had

a serious disease, and was going to die of heart apoplexy. All the assurances and examinations of his doctor could not convince him. For this reason he suddenly left his appointment and went home one day, seven years ago, being afraid that he would die shortly. After this he consulted every possible doctor, and took long holidays repeatedly, always recovering a little, but invariably finding that his fears returned speedily. These were gradually reinforced by the fear of gatherings of people. He was also unable to cross large squares or go through wide streets by himself. He avoided using the railway for fear of collisions and derailments, and he would not travel in a boat lest it might capsize. He was seized with apprehension on bridges and when skating, and at last the apprehension of apprehension itself caused palpitations and oppression on all sorts of occasions. He did not improve after his marriage three years ago. He was domesticated, good-natured, and manageable, only "too soft." On the way here, when he had finally made up his mind to place himself in our hands, he trembled with deadly fear.

The patient describes himself as a chicken-hearted fellow, who, in spite of good mental ability, has always been afraid of all sorts of diseases—consumption, heart apoplexy, and the like. He knows that these anxieties are morbid, yet cannot free himself from them. This apprehensiveness came out in a very marked way while he was under observation in the hospital. He worried about every remedy, whether it was baths, packs, or medicine, being afraid it would be too strong for him, and have a weakening effect. He always wished to have a warder within call in case he got agitated. The sight of other patients disturbed him greatly, and when he went for a walk in the garden with the door shut he was tormented by the fear of not being able to get out of it in case anything happened. At last he would hardly venture in front of the house, and always had to have the door open behind him so that he could take refuge indoors in case of necessity. He begged to have a little bottle of "blue electricity" that he had brought with him to give him confidence. Sometimes he was seized with violent palpitation of the heart while he was sitting down. Some little acne spots gave him so much alarm that he could neither go for a walk nor sleep. It struck him that his look had got very gloomy, and he thought it was the beginning of a mental

disturbance which would certainly seize upon him while he was here.

Many of the features of this clinical history recall hysteria, particularly the changing fears of disease awakened by accidental impressions. But the physical symptoms which accompany hysteria are wanting, and *real apprehension*, not only of disease, but also of all kinds of dangers, is the predominant feature, while the peculiar pleasure in being a sufferer which we often see so clearly in hysteria is entirely absent. Then there is a great uniformity in the morbid appearances. We may therefore count this case among the group of cases related to hysterical insanity, but pretty clearly distinguished from it, which we include under the name of the *insanity of irrepresible ideas*. The appearance of uncontrollable fears, not to be overcome by the arguments of reason, which have brought our patient's actions under their yoke to a large extent, is diagnostic of this very common form of morbid disposition. Our patient knows quite well that nothing bad can happen to him in front of the hospital, but the apprehension which springs up in him is stronger than all reflection, and can only be kept within bounds by the knowledge that the door is standing open, whatever may happen, or that he can have recourse to his "blue electricity." The circle of these fears, which in this case includes apprehension of squares, bridges, crowds, railways, etc., may be quite different in accordance with personal tendencies and experience. In other patients we see apprehension of dirt, poison, needles, storms, clothes, and many other varieties.

The whole course of the present case shows that the disease is deeply rooted in the general personality. It usually develops early in adult life, and lasts with greater or less fluctuations throughout the whole of life. It is but seldom, and only in the most severe cases, that the symptoms advance until mental freedom is entirely destroyed. The patients are then so much taken up with their uncontrollable anxieties that their whole thought, feeling, and action is ruled by them. But it is still generally possible to bring about a certain improvement in the symptoms by encouragement and other kinds of psychical treatment. We have tried hypnotism in the present case, and, as is usual with patients of this kind, it has an immediate but only temporary effect. While the patient felt much relieved after the first few séances, his fears attached themselves only too readily

to the new treatment. He was convinced that it did him no good, and soon lost the faith which forms the basis of the cure. We will now try by methodical practice to accustom the patient more and more to go about freely outside the hospital, and so to overcome his manifold morbid fears. It is true that we cannot expect very much from this. Long-continued residence in one of the asylums for nervous cases suggested by *Möbius*, with plenty of opportunities for regular work under constant medical guidance and supervision, would be very useful to patients of this class. A longer stay in the hospital, with its very different objects and means of treatment, can hardly do the patient much good.*

A young lady, aged twenty-six, brought here by her relations three weeks ago, may also contribute, though in an entirely different way, to your knowledge of irrepressible ideas. The slightly-built, ill-nourished, sickly-looking girl has an expression of pain and trouble. Her hands and fingers are always in slight movement, reflecting her mental restlessness. She is quite collected and clear, but only gives monosyllabic answers. Her maternal uncle is insane. She was constitutionally healthy herself, lively, and cheerful, but fell ill ten years ago of chronic inflammation of the tarsal joint, which brought her under medical treatment for a year. Even now walking is made difficult and slightly painful by the stiffness of the joint. In answer to our questions, the patient says that she is not insane, but only a wicked person who would be sent to the devil if people knew how continually she sins. She does not deserve to be well treated, and she cannot bear that people should look on her as an invalid, when in reality she is only pretending. It is impossible to get any details from her, as she evades every attempt to extract information. We can only learn that she has been to confession unworthily, and so could find no rest, even if she went to the end of the world. She must go away, anywhere, only not to her home, where she has lied and deceived. She cannot stay here either, as people are far too good to her.

So far as we know, this state of depression has developed quite gradually in the last year or two. It struck the patient's relations that her mood changed quickly and abruptly. She occa-

* We sent the patient back to his family after seven weeks, as constant occupation with plans of cure and the want of regulated employment had a decidedly bad effect. He has now been at work again for four years.

sionally expressed religious doubts, on account of which she was sent to the priest, and also to a place of pilgrimage. But this only produced an aggravation of her condition each time. The restlessness increased, and the patient's sleep and appetite became worse and worse, her strength gradually becoming very much reduced in consequence. She felt burdened with grievous sins, of which she could not properly repent, and so was fallen into the power of the devil. She had neither wishes nor will ; everything had become indifferent to her. Her whole previous life, with all her transgressions, stood out clearly before her, so that she was surprised at her own memory. She could not help brooding and having unclean thoughts, which broke her heart. Hence she worked feverishly, just to avoid thinking, although everything was very difficult for her.

After great reluctance, she has informed me of the purport of her tormenting thoughts. She was almost continually haunted by ideas associated with the reproductive organs of the opposite sex, which need not be detailed here. Thoughts of this kind, concerned in different ways with the same object, persecute her unceasingly without her being able to ignore them. Hence she says that she must really wish to have such thoughts ; she must find pleasure in them, or they would not come. It is very difficult to divert the patient's mind from her painful self-torture ; she always returns to it. She is quite unable to read, or to occupy herself mentally in any other way, as these sexual ideas attach themselves, by the most remarkable connections, to her course of thought, however remote it may be. In her general thinking the patient is clumsy and slow. She has always to overcome great disinclination, even when she has to write a simple letter. She generally obeys the doctor's orders, but has a number of peculiarities. The baths give her pains ; meat is not good for her ; she must follow certain paths in her whole way of life if she is not to grow worse. No physical disturbances have appeared except stiffness, swelling, and pain in the left instep, and a tendency to constipation, which has existed for many years. She sleeps badly.

In our last patient we had to deal with apprehensive fears of various kinds. Here we have a definite group of painful ideas, sometimes combined with impulses, which force themselves on the patient. Here, too, we may assume that the disagreeable thoughts spring up against the patient's will, and are

not intentionally harboured by her. Even though she says herself that she really wishes to think about such things, and so is responsible, it is clear that she has a strong desire to be freed from her tormenting thoughts, but cannot refrain from them. There is, therefore, an unmistakable similarity in the symptoms of disease in the two cases, which appears even more clearly in the hypochondriacal fears connected with the medical treatment. On the other hand, we cannot overlook the difference in the general clinical behaviour of the two patients. First there is the short but rapid development of the picture of disease in this case contrasting with the very uniform condition showing but slight fluctuations in the other. Secondly, there is the great inward restlessness of our present patient, and the serious effect on her general physical condition. Finally, there is the difficulty of thought, as well as the deep emotional agitation, contrasting in the strangest way with the feeling of inward apathy.

I think it is clear from all these signs that there is not a permanent condition here, as there was in the case of the first patient, but only an *incident* of a disease, which we may accordingly expect to pass off after completing its cycle. We cannot draw this conclusion from the purport and form of the uncontrollable ideas themselves. Indeed, they might appear in just the same way as the expression of a permanent "psychopathic inferiority" depending on a morbid disposition. But it is the clinical accompanying phenomena which oblige us to interpret the picture differently. I think that you have before you another of the many illustrations of the aphorism that a single symptom, however characteristic it may be, never justifies a definite diagnosis by itself, and that only the whole picture can ever be decisive of the clinical hypothesis.

Now, however, we have to answer the question as to the incident of disease to which our case belongs. According to the views advanced in these lectures, we will have to think more especially of the possibility of dementia præcox or maniacal-depressive insanity. The choice will not be very difficult. States of emotional depression, with self-accusations of sin and uncontrollable ideas, may come under observation in both diseases. But the difficulty of thought, the great emotional excitement, which broke out in the most violent way when the patient was visited by her mother, and the absence of all eccen-

tricitities and negativistic features, make it extremely probable that we have an attack of maniacal-depressive insanity before us.

Cases of this kind, accompanied by vivid uncontrollable ideas, and generally having a very protracted course, are, in fact, far from uncommon. They are characterized by a somewhat rapid onset, without any premonitory symptoms of long duration, and by the great emotional depression, the hindrance of thought and volition, and the ideas of sin by which they are accompanied. We may, therefore, expect that, in our patient's case, the symptoms which are so urgent and important at present will disappear entirely within a reasonable time.* But we must be prepared for the recurrence, sooner or later, of attacks which may either be similar to this or different. Of course, the clinical interpretation of the picture decides the treatment to be adopted. In contrast to the first case, asylum treatment, removal from the family, supervision to prevent the danger of suicide, rest in bed, and the most scrupulous care to secure proper nutrition and sleep are indicated here. We may also think of administering sedative remedies. I think a combination of moderate doses of opium and bromides appropriate.

The diagnosis is far more difficult in the case of a railway workman, aged sixty-one, whom I should like to show you for the purpose of comparison. His sister was insane during pregnancy, but recovered, while his son died at the age of seven of a disease of the brain. The patient himself was always a quiet, industrious, "punctual" man. He fell ill for the first time sixteen years ago. At that time there was an attempt to make him responsible for the derailment of a carriage, and, in addition, he received notice to quit his house unexpectedly. Thereupon he became apprehensive, could not do his work, and finally was sent to an asylum, from which he was discharged as cured after four years' residence. After that he was well for ten years. Two years ago he became ill again, after paying a visit to an insane woman in the neighbourhood. He came back very much excited, complained of pressure on his chest, apprehension, and sleeplessness, ran about restlessly, could not remain long anywhere, and, finally, made a rather feeble attempt at suicide

* When it had lasted between three and four years, the patient's illness ended in a complete cure, which still continues, five years later. Its further course fully confirmed the hypothesis we formed from the patient's clinical history and condition.

by giving himself a slight cut on the forehead with the wood-chopper in his wife's presence. This led to his being brought to the hospital.

When you look at the patient you are struck at once by his gigantic skull, enlarged in every diameter. The man is strongly built, and looks comparatively young and vigorous for his age. He is collected, quiet, and clear, and shows a very marked feeling of illness. He says he has no more pleasure in anything, cannot enjoy himself, and feels apprehension, which lies about his heart, and is worst in the morning. It plagues him day and night, and gives him no rest. He cannot occupy himself steadily, because there is always the same struggle. It often seizes him so violently that he cannot help screaming. He is always so frightened that he does not know how to help himself. Besides that, there are the bad thoughts that rise up in him and that he cannot overcome. The patient really is unable to make more detailed statements about them, but they are evidently thoughts of suicide. Twice he saw three-cornered stars before his eyes, and each time he felt an impulse to suicide. It was like a voice within. There has never been such a disease before, and he certainly won't get well again this time. He cannot stand noise; music, too, is not for him. He cannot go to church either, he is so much upset by it. His limbs often twitch; when he is lying down there is a shock, and his hands fly apart, his mouth opens, his head moves about. Rolling movements of the head, jerking open of the mouth, and spasmodic contraction of different groups of muscles have really been observed occasionally. His sleep is very bad, and is the subject of constant complaints, but he takes food well. His weight has slowly but steadily increased by 10 kilogrammes.

In this description of disease, which has been very uniform, and has shown only quite unimportant fluctuations since the patient's admission, the principal part is played by ideas of suicide, which force themselves painfully on the patient's mind. He also has apprehensive depression, and a delusionary fear that he will never be well again. With our first patient it was fears which arose from the gloomy depression; with our second patient it was mere simple tormenting ideas; while here we have morbid impulses. But these impulses are not very strong. The patient is able to resist them, and the only attempt at suicide he has made under their influence was not at all dangerous.

This reminds us very much of the behaviour of hysterical patients, whom we often find playing with thoughts of suicide, without their leading, as a rule, to more than ostensibly practical attempts. The peculiar convulsive phenomena, which evidently depend on psychical causes, would also suggest the assumption that the malady is hysteria, even if there were no other characteristic disturbances. The fact that the illness followed great emotion on each occasion might be interpreted in the same sense.

On the other hand, it must be recognised that our picture of disease differs from that of ordinary hysteria in several particulars. First and foremost, there is the great uniformity of the appearances, seen in both the earlier and the later history of the case, and the slight effect of persuasion and other psychical influences on the disturbances, although the patient has always shown a great desire for medical advice. We must also bear in mind that the course of the illness, though very protracted, has decidedly been of the nature of an attack. However, the patient seems to have had a very apprehensive disposition, even at home. "I may say that I was born in apprehension," he once declared. Yet he positively maintains that, both before the first illness and in the interval after it up to the present recurrence of the malady, he was quite free from oppressive thoughts and impulses to suicide, and slept well. Therefore, even if we are justified in supposing the apprehensive depression to be only the extension of a permanent psychopathic condition, the two attacks of the malady stand out in a very definite way. Indeed, the important increase in weight, in particular, quite accords with the experience we have had of maniacal-depressive insanity.

But we cannot without difficulty classify the conditions observed here under the last-named disease. Even if we were to disregard the absence of all maniacal features in our patient's life, the condition itself has very little resemblance to those with which we are familiar in that disease. The impediment of thought and volition which is so evident there is here replaced by pure states of apprehension and somewhat hypochondriacal complaints with psychogenic admixtures, while the emotional excitement and its influence on the patient's whole conduct is very slight. Perhaps we are reminded most of certain forms of neurosis due to shock, etc., with their uniform states of depres-

sion and hypochondriacal colouring. But in this case the external cause was extremely trivial on each occasion.

In the face of these difficulties in the clinical interpretation we will be contented with having learned that certain states of depression with a very slow and protracted course appear in timorous people with an apprehensive disposition, merely intensifying their ordinary depressed condition, and have a tendency to recur frequently in the course of their lives. The clinical appearances are not very well marked, and there are no real delusions, but morbid fears, irrepressible ideas, uncontrollable impulses, and all kinds of psychogenic disturbances often set in. We will give the name of *periodical depression* provisionally to this state of disease, of which the clinical position is not yet quite made out, though it is evidently in many ways akin to hysteria, to the insanity of irrepressible ideas, and also to neuroses from shock. The separate attacks terminate in the very gradual cessation of the patient's strange complaints.* The treatment consists, according to the violence of the attacks, of nursing in an asylum, rest in bed, the administration of small doses of opium, mental diversion, and occupation.

* After two years in the asylum, the patient was discharged improved ; but he is said to be "very ill again" now, after six years more, and his readmission is contemplated.

LECTURE XXVIII

IMBECILITY—IDIOCY

GENTLEMEN,—You will often have noticed in the course of these lectures how little the idea formed by the laity of the behaviour of the insane corresponds to the reality. Many of the patients you have examined here hardly presented anything remarkable at first sight. They gave intelligent answers, and behaved themselves properly ; not a few had a distinct feeling of illness, and some even had a clear understanding of the special nature of their malady. Yet on closer inspection we have always been able to find disturbances which at once showed the stamp of their morbid nature and undoubtedly passed the bounds of sane behaviour. It is otherwise in those forms of insanity where we only find deviations *in degree* from the more or less arbitrarily drawn lines marking the limits of mental health. It is true that, at the farther end of the ladder leading imperceptibly from the frankly morbid to the commonplace, the distinction is easy. But there must necessarily be many intermediate steps, approaching the morbid at one end and the sane at the other.

When we talk to the woman, aged thirty-six, who now takes her seat before you with a good-tempered, rather shy greeting, we very soon see that she is mentally badly equipped. She knows where she is, and recognises the doctors and the people about her, and can describe them fairly well, but as soon as she is asked what year it is, she makes quite helpless guesses, although she can tell the month and the day of the month—at least, approximately. She is also uncertain of her age by several years. But she tells us the story of her life with intelligence, though diffusely and incompletely. Her parents are dead. Her father was fond of drink, but was seldom drunk. He lived on bad terms with her mother. Three brothers are dead, and three others are alive and

well. The patient did badly at school, owing to the weakness of her eyes, as she says. After her parents' death, of which she can only give the date very vaguely, she lived with a foster-father, and tried once to go into service, only keeping her situation for two months. Afterwards she was sent to an idiot asylum. The reason for this was the circumstance that she bore a child almost every year. She has had eight children since she was twenty years old, of whom six are still alive. She can only give a very imperfect account of their ages and names, and of where they are. Once she escaped from the asylum, but went back of her own accord after a short time.

She had her last child by a warder of the asylum, and therefore it was decided to send her elsewhere. She agreed to this, for she knew that she had done wrong. So she promised the Poor-Law authorities that it would never happen again, who said that they would overlook it once more. She excuses herself by saying that the warder promised to marry her, and that it was all to have been kept very quiet. She thought she would get out of the asylum by marrying, but when things had gone so far, "he" went away. She quite understands that she must be shut up if she has a child every year. She is not frightened by the prospect of staying a year in the hospital, but only says that then they will see what fine stockings she can knit. She feels perfectly well, and says, "I am not ill; I can work." She can earn her living by selling fruit or taking a situation.

Her general knowledge is extremely small. She can do simple sums, but gives them up whenever any special mental effort is required. She does not know the name of the Grand Duke or of the Emperor, nor what river Heidelberg is on, and can name absolutely no towns, rivers, or countries. A few scraps of religious instruction remain, learned by heart, without being understood or mentally turned to account. Yet the patient is skilful in all kinds of housework, works willingly and industriously, gets on in the little circle of the ward without any difficulty, helps in a practical way where she can, and causes no disturbance. She notices improper behaviour in the other patients, and interposes to protect the doctors from abuse. Her mood is almost always cheerful, contented, and free from care; it is only now and then that she is anxious to get out, seems to miss her children, and says that she can take care of herself, and that they have no right to keep her. In the patient's physique, you observe at

once the low forehead and very small skull. Her expression is imbecile and vacant, and her palate is very highly arched. Except for these, there are no abnormalities worth mentioning.

You cannot be in any doubt that this is a simple mental *state of weakness*. The patient's mental and emotional behaviour produces the impression of that of a child eight or ten years old at most. Her knowledge, indeed, is on a much lower level, but given ordinary circumstances she can find her way about much better than one would expect from the evident scantiness of her stock of ideas and the weakness of her judgment. Her attitude towards her sexual failings is exactly that of a child to its naughtiness. She is glad when she is forgiven, and has absolutely no sense of the moral significance of her conduct. She is very far indeed from worrying or thinking about the results of her actions, or about her future at all. Easily guided and obliging as a child, she adapts herself to whatever happens. Thus, her condition may, on the whole, be best understood as the failure of the mental personality to rise above a low level of development, or as a high degree of that inadequacy, unfortunately not unusual in even normal life, which we call stupidity and limited intelligence.

In this case, unlike the forms of feeble-mindedness considered hitherto, there are no remains of previous mental disturbances—delusions, hallucinations, depression, or eccentricities of behaviour and action. It is only in degree, and not in their nature, that the mental, emotional, and volitional acts of our patient are different from those of simple people, whom we still regard as within the pale of sanity. In particular, we miss the very great discrepancy between knowledge and capacity which we have always seen in acquired feeble-mindedness. There we always saw the patients make shipwreck in life, although they often still possessed considerable knowledge. But, in the present case, the patient is fairly equal to the ordinary demands of daily life, while her mental development does not go beyond the most immediate experiences of the senses, and fails altogether as soon as more general ideas and attainments are in question. The patient's *ability* is incomparably greater than her *knowledge*, and, if the increasing number of her illegitimate children had not led to her being sent to the asylum, she would have found herself a place in the outside world without great difficulty. This capacity for the practical conduct of life, in conjunction with a very low grade of higher mental activity, is characteristic of the *congenital feeble-minded-*

ness which is called imbecility in contradistinction to acquired dementia, with its absurd behaviour. But even imbeciles are naturally unable to satisfy the more difficult demands of life. Sexual relations in the present case, and in others alcohol, bad example, or a propensity to idleness, are the reefs on which they are wrecked in consequence of their inadequate equipment for the battle of life.*

As imbecility depends on a congenital or early acquired affection of the cerebral cortex, it cannot be influenced in any way by medical treatment. But an education carefully adapted to the patient's idiosyncrasies will always bring about a certain development of the existing faculties. In ordinary schools feeble-minded children not only make no advance themselves, but they also hinder their school-fellows. In many towns the course has now very properly been adopted of separating mentally deficient children, and teaching them in auxiliary classes, where the course and method of instruction are suited to their capacity.

In the more severe forms of congenital feeble-mindedness these auxiliary classes are not enough. The education of children of this kind must be transferred to special asylums, with teachers specially trained to the work. Here you see a man, aged twenty-four, who has lived in an idiot asylum since he was seven years old. He showed a marked degree of mental incapacity even as a little child. Unfortunately, we know absolutely nothing of the first part of his life. The patient answers our questions willingly, but in curiously broken and ill-formed sentences. He knows that the place he comes from "is an asylum-house and asylum children." Here he makes the remark, "If one has learned already and attends better, one can learn an awful lot." He has learned reading, writing, arithmetic, and a great many other things. He calls his present place of residence an "infirmary," and knows the names of all the people about him quite correctly, although he has no real idea of the particular meaning of the asylum. He can only name the present month and his birthday, but not the date of the year, even approximately. He gives his age correctly, but cannot reckon time.

He recognises pictures which are placed before him, and names them correctly, adding remarks which show that he understands what he sees, such as "Duck-bird, swims on the water," "Cat likes to drink milk." He can also read, with the measured

* The patient is now in a nursing asylum unchanged.

scansion in which school-children learn their lessons, breaking up the words into syllables. He can repeat a number of texts and verses of hymns he has learned by heart in the same way. When told to do so, he sits down at once with his hands folded, bows his head a little, and begins in his school fashion to repeat the Gospel for Christmas. And we find that he understands the sense of it tolerably well. Besides the religious ideas of heaven and hell, the Child Christ and angels, which he brings forward again and again, his mind is filled by recollections of his life in the asylum—the “ribbon-work, blue, white, and red together,” “doing weaving,” “doing baking,” “cleaning stair, cleaning up garden, making good dough, praying to God,” and also by a visit from his former head-warder, whom he recognised at once and greeted in a friendly way. He does sums with small figures, slowly and with the help of his fingers, but correctly. He knows money up to a mark. “If anyone wants to know, can reckon well—for instance, if anyone asks how much is three hundred pfennigs, then I think now I must attend; then one says three marks. When anyone asks eight hundred pfennigs, then one says eight marks; a thousand pfennigs, then one says ten marks.” He calls a ten-mark piece a gold pfennig, but cannot tell the value of it.

He cannot name the country in which we live. “I have not had so much time.” Neither does he know the name of the Grand Duke. “They do not say so out there.” “Emperor I know, Frederick William.” The Grand Duke lives at Karlsruhe; his birthday is on the 9th of September, “and I will tell you that, too, directly, the Emperor lives at Berlin.” The patient knows the points of the compass, and gives them correctly even in the room. His mood is satisfied on the whole; he is childishly sociable, and evidently proud that people are taking notice of him. He very willingly plays a simple tune on a mouth-organ, pipes on a little bottle, imitates a cuckoo through his hollowed hands, and is childishly pleased with the applause he wins. His gestures are lively and expressive, and the play of his features, which often amounts to grimacing, reflects his feelings very plainly.

As we have already said, the patient’s speech is very remarkable. He is quite unable to construct a sentence, but puts the separate words loosely together, according to their general construction, so that one can fairly well guess what he means. The

more or less comprehensible sense, which plainly appears in this confused series of words, quite distinguishes it from the confused speech of katatonic patients, to which it has a superficial resemblance. Our patient's talk reminds us rather of the broken speech of uneducated people who have learned a foreign language very imperfectly and by ear alone. Thus he explains, when asked how old he is : " If you once know how old I am, listen : how much old, am twenty-three old now—that is, 23 August month, add one month ; when one is over, one year older, 17 day is name day, then joy ; do you know, that is just Sunday. I have always learned well, attended beautifully well, is like the Emperor's birthday." He speaks with rather a stutter, but sometimes very quickly, and talks a great deal. He often inserts meaningless words and phrases that he has often heard when he is being taught, especially " attended " and " good-morning." " The good God can do a great deal on the earth—good time—attended well—learned in the school, have learned arithmetic too ; I can read Latin too. Good-morning ! In winter I split wood-saw ; that was good work."

As you see, the patient's talk is very divertible, and he introduces all kinds of irrelevant ideas into it. His stock of ideas is evidently very scanty, and he always repeats the same thoughts and expressions. He writes with a steady hand very slowly. His writing is large, regular, and very legible and careful. Its purport shows the same peculiarities as his speech—almost complete absence of construction, digressions of the course of thought, monotony, and poverty of ideas. Yet the patient has, of his own accord, made a quantity of drawings, some of them coloured, representing in a childish way houses, Christmas-trees, angels, carriages, and quite a number of objects of daily life. As they are generally repeated in exactly the same form, and are very well executed, they must be reproductions of subjects he has practised. He explains them in the same quaint way as he did the pictures which were shown to him.

We must regard the stage at which mental development has been arrested in the case before us as considerably lower than that of the previous patient, though the difference in the stock of ideas itself may not be very great. But here we see the result of a careful education lasting for many years, while the other patient only gained such additional mental endowment at school as she could pick up under ordinary conditions. Accordingly,

she showed very little trace of what she had been taught, but she understood her position far better than our present patient. In his case, we can easily see that the stock of ideas has only been won by the direct agency of the senses, while all further working up of such material, particularly the formation of general ideas and conceptions, is almost entirely absent. With this there is associated a ballast of learning acquired entirely by memory and belonging, characteristically enough, almost exclusively to the province of Bible scholarship. But what marks the patient's low mental position most clearly is the imperfect development of his speech, which, in spite of all instruction, has remained on the level of that of a child three or four years old. We will therefore be justified in regarding this case as belonging to those very severe forms of congenital feeble-mindedness which are generally classed under the name of *idiocy*.

Idiocy, too, depends on an early and general affection of the cerebral cortex. In this connection, one generally thinks of the arrest of development as being due to some kind of malformation. It seems, however, that we have to deal, in by far the greatest number of cases, with an actual *disease*, involving the partial destruction of the constituent parts of the cortex. These disturbances often take place even before birth, and also often enough in the course of the first few years of life. No considerable physical disablement usually appears, and our present patient's physical examination shows no abnormalities worth mentioning, except the height of the palatal arch. But a sign of the brain disease has remained in the form of *epileptic attacks*. These are often observed in such cases, and are considered an unfavourable sign for the further development of the condition. They have existed since the patient's childhood, and have been observed in this hospital about every four weeks, singly or in little groups. States of apprehensive excitement also appeared at frequent intervals, in which the patient was afraid he would be made away with, screamed loudly, tried to get out, and was violent and unruly. Sometimes these conditions, which were the cause of his being brought to the hospital, set in even at night, but generally they passed off again in a few hours.

Our patient's malady is, from its nature, incurable. All that can be done by education has been done in his case. He is not fit for an independent place in life, yet it will still be possible to utilize the powers which have been given him, to a certain extent,

in the work of an asylum. But the epilepsy accompanying his malady gives occasion to the fear that, in course of time, there may be a still further loss of mental ability.*

As the name of idiocy includes all those disturbances which lead to imbecility in early childhood, and so nip in the bud psychological development, we can hardly speak of it as a single disease. Indeed, idiocy may apparently be due to very different varieties of disease, though we cannot at present distinguish them. Individual cases of idiocy do, in fact, show very great divergencies, not only in degree, but also in the kind of imbecility. A few weeks ago a boy, aged twelve, who belongs to a very degenerate family, was brought here. His mother spent many years in an asylum, his father is said to have been occasionally deranged, a near relation came to his end by suicide, and his grandfather was extremely "nervous." The boy is the sixth in a family of eight, of whom the last five are all said to be mentally ill-endowed and clumsy. He was born at the full time, but had very frequent convulsions from the time he was four weeks old, which kept on recurring for several months. His speech was late of development. His education presented great difficulties, as he was disobedient, unstable, and easily excited. At school the boy made very poor progress, and was considered idle and inattentive. The teachers said he could do very well when he liked. Latterly he could not be made to go to school at all, and threw himself on the ground if anyone tried to force him.

For the last two years he has run away from home whenever he saw that he was not watched. Latterly he stayed out even at night, wandered about aimlessly, hid himself, climbed about in lofts and cellars, and dug himself holes, from which he finally emerged, looking dirty and neglected. All attempts at education proved ineffectual, and gentleness made as little impression on him as scolding or blows. If he was remonstrated with, he only answered, "I can't; I won't." He showed no attachment to his family, or at the most only to a younger brother, but he liked playing with other children. He often laughed immoderately, and once did so for a whole night. His sleep was very much broken and his appetite capricious. He behaved badly at meals, generally crouching under the table. He was very irritable, and liable to get into a quite senseless rage. Then he destroyed what-

* The patient has been in a nursing asylum for a year unchanged.

ever came into his hands, and even threw things out of the window. He was unreliable and untruthful. As he finally threatened to set fire to the house, he was brought to our hospital.

You see that the boy is small for his age and poorly nourished, and gives the impression of a child about eight years old. His skull is unusually small and asymmetrical. The lobes of his ears are soldered, and his eyes are small, but there are no other physical abnormalities worth noticing. He is clear about where he is, knows who brought him here, can tell the names of all the patients and warders with whom he has come into contact, and even knows in which beds they sleep. He does arithmetic, so far as he has learned it, very quickly and correctly, but addition, and still more subtraction, are much harder for him than multiplication. He knows scarcely anything of towns, rivers, and countries, and does not know the capital of Baden or of Germany. Neither has he heard of the Battle of Sedan. The Emperor is called Frederick. Bismarck is the Sovereign in Germany. He can enumerate only a very few dates, but a fair number of animals, though he cannot be induced to show any regard for the living creatures in air and in water. He cannot repeat the Ten Commandments, and has very confused and deficient religious ideas. "Sin is when one spoils bread or shoots birds dead." He knows that one ought not to do that, but cannot exactly say why.

The boy's mood is cheerful. He likes being here, does not feel in the least homesick, and never asks after his relations. He behaved quite apathetically when they came to see him. He has soon grown familiar with his new circumstances, associates with grown-up people without any shyness, is always interrupting impertinently, is not afraid of excited patients, but laughs at them, and does not learn to know better when some of them scold, threaten, or even strike him. He cannot be induced to do any continuous work. Although he reads quite easily, if you give him a definite task, he does not go on with it, has very soon forgotten what it was, and does all kinds of childish mischief. If he is forced to read, he can repeat whole sentences almost, or even absolutely, word for word, but hardly takes in a trace of the meaning. Next day all is completely forgotten. His behaviour is familiar. He greets the doctor from a distance, goes with him on his visits, gives information, joins in the conversation, and lets himself be made use of for trifling services.

Under the discipline of the hospital, hardly any disturbance

can be seen in the patient's outward bearing, and none at all in his memory and sense-perception. But his judgment and his power of working out his experiences are on a very low level, corresponding at the very most to those of a child five or six years old. Yet the most prominent feature of the clinical picture is *complete want of emotion*—indifference to his nearest relations, absence of home-sickness and of shyness before strange and even threatening people, and inaccessibility to educational influences. In contrast to the behaviour of the last patient, it is in this department that the morbid disturbance is by far the most strongly marked, although the severe impairment of the understanding is only hidden from a superficial examination by the surprising power of memory.

The particular form of imbecility in the case before us will perhaps remind us of our experience in dementia præcox, of which the final stage is also often marked by retention of memory, with great weakness of judgment and loss of emotional activity. It is true that the disturbances of behaviour and action, which are usually so clearly marked in that disease, are completely wanting in our patient, if we disregard his instinctive running away. But still, it is conceivable that some relationship may exist between this form of idiocy and dementia præcox. There is a considerable group of cases in which clearly katatonic disturbances develop on a soil of feeble-mindedness existing from childhood. In our present case the convulsions in childhood might mark the onset of the disease of the brain, of which we see the result before us now. With the boy's good though fugitive memory, a further development of his knowledge may result from careful instruction in an asylum for idiots. But whether it will be possible to develop his defective emotional life to any extent, unfortunately, seems very doubtful.*

* The boy has now been for four years in an idiot asylum. He is under-gardener there, and is still rather restless and heedless, but hard-working and conscientious.

LECTURE XXIX

MORBID PERSONALITIES

GENTLEMEN,—In the course of heredity the disposition of the individual is determined by influences of very different kinds. On the one hand, we see the personal qualities of the progenitors, whether good or bad, normal or morbid, reappearing in the children, while on the other the individual characters of posterity are guided in their special paths by the most various causes, so that, side by side with the resemblance between parents and offspring, numerous variations are always developed. The general result may be either an advance towards perfection, or the deterioration—the “degeneration”—of the stock. When these morbid and disadvantageous influences prevail, the new generation will bear within it the seeds of decay, which will certainly develop unless, in its further history, some compensation for this degeneration or some lessening of the unsuitable peculiarities is acquired by the admixture of sounder blood. The clinical form of degenerate individual personalities is, of course, extremely varied, as every possible combination of inefficiency is found with healthy and even with exceptionally gifted dispositions. But, for obvious reasons, only a part of the degenerate personalities in existence come into the hands of the alienist. Many are still able to fight out the struggle for existence with the help of their normal qualities, although they are distinguished from the mass of average human beings as oddities and striking personalities. And many come to ruin through their unpractical dispositions, and, according to the course of events, win pity, contempt, or abhorrence.

It is not to be expected that I should give you a comprehensive view of the whole province of morbid personality on which we have often touched already. I can only bring before you a few well-marked examples, which will perhaps make it easier

for you to recognise other forms. First look at the waiter, aged twenty-one, who was arrested in the street, six months ago, dressed in gaudy woman's clothes, and taken to a lunatic asylum, whence he came to us. You will see that he is slender in figure, of slight but perfectly masculine build, with a fairly large skull, but a very small face and a pointed chin. His palate is high-arched and narrow, and his teeth are very defective, and partly absent in front. His face is beardless, and he has a falsetto voice.

He makes rather confused statements about his past, which are often a combination of truth and falsehood. It is impossible to get a connected story, as he tells us just what happens to occur to him at the moment, without paying much attention to questions or interruptions. He knows where he is, and is quite clear as to relations of time and the people around him. We have ascertained by careful inquiry that a sister of his paternal grandfather died in a lunatic asylum, and his mother died at the age of thirty-six of "blood in her brain." A brother is blind, has been convicted of indecent offences with children, and is now in an asylum for imbeciles. The patient himself showed very little capacity from his boyhood, and learned badly. "His taste for buffoonery was greater than his anxiety to learn," as his father writes about him. The school-master said from the first that he would never come to anything. He was therefore sent to an institution for morally abandoned children, and was then apprenticed to a bookbinder, but did no good "in spite of plenty of boxes on the ears." Finally he became a waiter, went about the world in that capacity, and also spent a year in America with a sister. He was repeatedly condemned for vagrancy and gross indecency, and once for unnatural vice. He had made the acquaintance of another boy in the inn where he served, treated him to beer, and committed a sexual offence with him at night in a public place.

The patient's knowledge is very scanty. He can read and write, but can only do quite simple sums. When asked how much a party of twelve people must pay if they have each had a cup of coffee at twenty-five pfennigs, he says: "That never happens; there are always little round tables." He does not know in what country he lives, or how many days there are in the year, cannot tell the Grand Duke's name, thinks that London is the capital of Germany, makes the Neckar spring

from the Rhine, and has never heard of the war of 1870. "I was not in the world then," he says. He takes no interest in war. But he can tell about his passage from America, when he fed the cattle on a cargo-boat, and afterwards got six shillings from the Consul in London. He also remembers many other events, but sets them in a very personal light. He became a waiter because he is too handsome for a boots, and always keeps himself very clean, and is genteel and neat. As a waiter one always has good clothes, and can wait in the most elegant saloons. They may be the most expensive dishes, he can serve them all the same. "One simply writes down what the dishes cost; one does that quite smartly." He thinks that a waiter's business is a very fine one.

He simply denies his criminal act. They just wanted to get him into trouble; he has never done anything of the kind in the open. "What I have done, no one has ever seen." "You can keep company nicely with a pretty boy; you must deal with me as if I were a woman. I am so much in love that I do it in my breeches." He can play the girl even if he cannot be used as one. He has never worn the woman's clothes at all—they are a present from his uncle, who has two daughters. He can keep what he likes in his box. "What is that to the stupid police?" Students and the people from the theatre have women's clothes in their boxes too. He would have liked to appear at the fair or in a shooting-gallery, the clothes suited him so well, particularly when he wore eye-glasses. He could wear them in his room, and look out of the window.

Concerning his sexual inclinations, we learn that he "would rather be a girl." He has never had to do with women—"that costs too much." But he would, if it were "something quite elegant—a baron's daughter or a countess." He has never practised onanism. In telling his story, the patient takes pleasure in very indecent expressions and descriptions. He declares that his former doctor, to whom he behaved very forwardly, invited him to immoral actions. "Why does he want to show me how? I have known that for a long time." In this asylum, too, he presses his company on the doctors, complains that "the duffers" (the warders) interfere, tells them how to please the nurses, and promises to give them his picture.

His self-conceit is very great. He would have studied medicine if his mother had lived, is much neater than the girls,

and does not stink so, is very rich, would like to get a present from everyone. "There is no need to change anything in me; I am good enough as I am. Everyone has been pleased with me." There is an affected bashfulness in his behaviour, which, however, occasionally gives place to the most indecent abuse. He speaks softly, with his eyes cast down, tries to grasp one's hand, makes use of unusual and carefully-chosen phrases, and parts his hair in the middle. He cannot be induced to occupy himself in any way, lounges idly about, and does not trouble about anyone, but associates at once with a young fellow sent here on account of a similar criminal offence. He reads little, and without understanding.

The fundamental feature of the state of disease before you is congenital feeble-mindedness—*imbecility*. In addition to this there is a *morbid direction of the sexual instinct*. Although it cannot be affirmed that the patient has absolutely no susceptibility for the female sex, he is evidently much better pleased to play the part of a woman, which he learned, according to his statement, in America, and has occupied himself in that way. In agreement with this, he is pleased with fine clothes, would like to be able to knit and crochet, and takes no interest in war, though as a boy he played with a sword and a helmet. Now the effeminate occupation of a waiter particularly suits his taste, and he would have liked to appear as a girl in the theatre. This perversion of the sexual inclinations, which has lately aroused the curiosity of the widest circles, is to be regarded as a *phenomenon of degeneration*. It usually develops in connection with the first sexual impulses, generally aroused by the same sex, but also often after failure or satiety in normal sexual intercourse. Like every symptom of degeneration, it may be combined with otherwise good mental and emotional ability. In the latter case it is to a certain degree amenable to psychical, particularly to hypnotic influences.*

Much greater difficulties are encountered in coming to a medical, and particularly a judicial, decision on the case of an engineer, aged thirty-three, who is stranded here for a little while after a most chequered career. A sister of the patient's mother and also one of her aunts were insane. The patient himself is said to have had teething convulsions in infancy, and later on to have fallen from a tree, and lain for some time insensible.

* The patient has been six years in a nursing asylum unchanged.

From childhood he was unsociable and restless, and often stayed away or ran away from school. He was not without talent, and made good progress, especially in mathematics, drawing, and literature, only lacking perseverance. He could not get on anywhere, was insubordinate, played silly tricks, and consequently had to change the day-schools and boarding-schools to which he was sent several times. It also happened that, to escape the annoyance of school, he simply disappeared for weeks, to turn up again suddenly among relations living a long way off. Sexual development set in very soon, and the patient had to be treated for gonorrhœa before he left school. He also masturbated a great deal. He was operated on for phimosis, and suffered for a very long time from wetting his bed. At the age of twenty he entered the army to serve for one year, was several times punished for drunkenness and breaking leave, was imprisoned for insubordination, and, finally, was discharged from military service as "mentally defective."

Efforts were now made to get him into different workshops and factories as an unsalaried pupil, but he was always dismissed in a short time on account of his tendency simply to leave his work undone, to drink, and to indulge in sexual debauchery. An attempt to send him to a technical school was equally unfortunate. He got drunk in a disorderly house when he had no money, and wounded with a knife the man who was turning him out. He then lived for a time with relations or at home, and came of age. Then one day he went away, "not being on very good terms with his father," but was caught again, and, at the age of twenty-four, was sent to a lunatic asylum for a short time. As he repeated his flight from home after his discharge, taking with him a considerable sum of money, which he quickly spent in disorderly houses, he was sent for three years to a large lunatic asylum. Here he occupied himself with music, languages, mathematics, and stenography, but was childishly unstable, and also insubordinate in his behaviour, played tricks on and abused his fellow-patients and the warders, made mischief everywhere, was presumptuous, overbearing, and unmanageable, had not the least understanding of his position, and often made all kinds of promises of improvement of his own accord, always speedily returning to his old vicious habits.

After his discharge fresh attempts were made to get him a situation in one place or another, but always with the same result

—that in a short time he made himself intolerable by his debauchery and collisions with the police. Again he wounded someone with a knife, and was tried and condemned. Yet he ultimately passed his examination as a mechanical engineer. He made debts, and led a very free life. "There was a lot of devilry done, and I was in it," he said. He was turned out of one place for idleness and persistently frequenting disorderly houses, "with which he had already been acquainted," and was again handed over to an asylum. He repeatedly got away, however, and led a vagabond life, gaining a bare living by pawning his things and playing the piano in public-houses. As soon as he earned anything he spent it on "going on the burst with women," and was eventually arrested and convicted of bilking. He escaped from an emissary of his father, who was to bring him home, and found a place again, but immediately let himself be tempted into fresh debauchery, and was once more imprisoned for bilking. The same thing happened to him yet again, when he had resumed his vagabond life. At last he found a refuge and some work in the family of some friends, but in spite of all his good resolutions he ran away again, got drunk without having any money, and was arrested and punished. As these outbursts increased in frequency, happening twice in the course of a few months, and as he had also been run over while he was drunk, he agreed, under pressure from his friends, to let himself be sent to our hospital.

The patient, who is quite clear and systematic, relates a great part of these experiences himself. His narrative is cleverly told, and his memory, apart from inaccuracies in dating the various sections of his intricate career, is excellent. He says that the statements sent from the asylums he formerly visited are very much exaggerated, but in other respects shows no tendency to set his life in a particularly favourable light. On the contrary, it is a striking fact that he tells his story with a certain satisfaction, and feels rather a hero. There is absolutely no trace of shame or real repentance, and his promises for the future bear the stamp of mere phrases, which he uses to escape as soon as possible from irksome restraint and loss of liberty. "Cunning is stronger than force," he says sometimes. He has not the least comprehension of the incapacity to live in freedom which he has now shown on innumerable occasions. He says, without appreciating the meaning of these experiences

in the least, that he can have no difficulty in getting on as soon as he gets work again.

He has, in fact, got himself some pieces of work, which he has done so satisfactorily that he has been well paid for them. After having once made use of the free exit allowed him to bilk someone, he escaped repeatedly, each time in a slyer way, received the money he had earned, went on the burst in the town, played the piano in public-houses, and was eventually brought back again by the police. He gave as the reason of his escaping that he had received no definite assurance as to the form his immediate future was to take. He would have behaved unexceptionally if he had had the prospect of his discharge in a few weeks, or even months. There is nothing important to remark in the result of the physical examination except a slight inequality of the pupils.

If you only look at the knowledge, memory, and natural manner of our patient, and the continuity of his course of thought—that is, at those features which first and most obviously come under consideration, you will hardly suppose that you have to deal with a morbid personality here. It is only when the whole life of the patient is reviewed, with his action and the position he takes up towards his own past, that the full extent of the disturbances is seen. Hence everyone who has had an opportunity of closely observing his ways has gradually come to the same conclusion. We evidently have to deal with an *instability of the will* existing from childhood, and resulting in the want of all perseverance and all resistance to temptation. It seems as if these motives which arise from moral feeling had not developed in the patient. He does not feel the unworthiness or even the disadvantage of his way of life, but recalls his adventures with a certain degree of satisfaction, and will not let his action be decided by consideration for his parents or for his own future, but only by his momentary appetites.

With this short-sighted selfishness are associated an exaggerated self-satisfaction, a complete want of sympathy with others, whom he likes to make the butts of his raillery, and occasional great irritability, which has repeatedly driven him, especially when under the influence of alcohol, to serious acts of violence. This last peculiarity would suggest an epileptic foundation for the malady, particularly as the patient has sometimes led an orderly life for weeks together, and has twice had

fainting-fits. We have not, however, been able to discover the least indication of his excesses being connected with regularly recurring depression.

The patient's moral incapacity from childhood contrasts very sharply with his intellectual talents. But it is well known from every-day life that morality and intellect are to a great extent independent of each other. These cases are therefore generally designated as moral imbecility or *moral feeble-mindedness*. Such men are *born criminals by nature*, and are only distinguished from ordinary criminals by the great extent of their moral incapacity, by their having wills completely unaffected by the restraining experiences of life, and by their being *fundamentally incorrigible*. There is, therefore, as a rule, no other course to be taken, for their own sake, and for the sake of those around them, than to isolate them as being unfit for society, and as far as possible to find them occupation.*

A still more fantastic personality is presented by an actor, aged thirty, who was brought to us three weeks ago because he had swindled a prostitute of a diamond ring under an assumed name. He simply put it on his finger, and made an appointment with the girl for the next day at a fashionable hotel, where he was not to be found. On his arrest he declared that the hussy had given him the ring, and that he had sold it since. He made an attempt at suicide in the police cell, which the doctor did not think was seriously intended, and then was seized by attacks of excitement and convulsions, which led to his being brought to the hospital.

The rather pale, ill-nourished, clean-shaven man, who is dressed with a sort of shabby gentility, presents both in his outward appearance and in his whole air exactly the picture of an actor come down in the world. He talks much and very adroitly, makes use of pompous, high-flown phrases and all manner of professional expressions, and pours out a flood of most astounding disclosures from his life.

He finished his school career at sixteen, and first went into the navy, then studied medicine at Chicago, and also at Strasburg and Leipzig, and took a degree in medicine at Würzburg. Next he became an actor, and was in succession a coachman, a waiter,

* The patient has been for eighteen months in a large asylum unchanged. He exhibits irritable depression at irregular intervals, resembling that observed in epileptics.

a gold-digger in South Africa, and a street-sweeper in New York. There he got to know a Russian nobleman, who took him to his estate in Russia, where he learned the Russian language, and went as an interpreter to Teheran. But love of his art drove him on to the stage again. He played in Russia, and then came to Brussels, where he fell into want and became a porter. In this capacity he made the acquaintance of Coquelin, who engaged him for the Théâtre Français, and took him with him on his great tour to the Far East. Afterwards he played in all the principal theatres, always in leading parts, and married a woman of good family, an angelically pure creature, who gave him four children, but they all died in infancy.

In describing his unspeakably happy family life, the patient gets into a state of the deepest emotion, laments his fate, and imagines how dreadful it would be if his old father and the mother he can never forget heard anything about his present position. The affair of the ring was a very harmless one. He only meant to show off a little with it, and never thought of keeping it, but was forced to sell it for want. For the rest, he is a respectable man who cannot be confronted with a girl like that—"a creature whose whole life is based on the highest power of erotic sallies."

When we examine these fantastic statements more closely, of course we find the grossest contradictions. The patient admits this at once, and accounts for them by new and quite inconsistent stories, explaining that he has been obliged, by special considerations, to misrepresent many of the details. But the new statements also prove to be fictitious, and he will give you the most diverse descriptions of his life by the dozen, always assuring you, "on his word of honour," that he has really told the whole truth this time. We can easily understand the real reason for his inventions from the information the magistrate has given us. It has transpired that he is a swindler who has practised an endless series of almost incredible frauds for many years, under various names and in many different towns, and has always disappeared suddenly, leaving numerous debts behind him. He has been in prison several times.

If we set these facts before him he is never at a loss for a reason. Some he flatly denies, others he sets in quite a different light, others, again, he admits with contrition, pleading the excuse of his destitute condition or other special circumstances, and always insisting that in reality he is a perfect

gentleman. The cleverness and volubility he evinces in these conversations are astounding, and, besides, he has a perfect mastery of the German, Russian, and French languages, and a fair acquaintance with English, Polish, Roumanian, Hungarian, Italian, and Swedish, and understands a little Latin, Greek, and Hebrew. He possesses a certain knowledge, superficial and defective, no doubt, of widely different subjects, and is trying since he has come here to acquire as much medical science as possible in conversation, bringing it out occasionally in a surprisingly matter-of-course way. He knows well how to dominate those around him, and to get himself privileges in all sorts of ways. He becomes confidential and officious the moment he is met in a friendly spirit.

A series of "attacks" have been observed since he came here, in which, with loud groans and lamentations, the patient writhed, whined, and begged for morphine. He said that a number of eminent physicians, whom he named, had declared this drug to be indispensable. Finally, he threatened to commit suicide, and became rough and turbulent, but was tranquilized by being sprinkled with water. It appears that he has often had such attacks before, and has been in several lunatic asylums on that account; one of his landlords said that he suffered from epilepsy. Once he was speechless for a time, and could not utter a sound, or understand what was said to him, but afterwards wrote on a piece of paper, "Disablement of the vocal cord." He cannot be induced to do any serious work, and only reads novels, smokes, talks, plays rather badly, though not without talent, on the piano, recites, as it must be confessed, only moderately well, observes those around him, and tries to amuse himself as best he can.

It is doubtful if we should be justified in calling this extraordinary personality insane in the strict sense of the term; We have before us a *born swindler*, who, in spite of many talents, is entirely destitute of the essential requisites for work—perseverance and a sense of duty. Hence his whole course of life bears the stamp of caprice and immorality. He is incapable of any regular occupation, never stays long anywhere, and is always craving for change.* His memory is remarkable, but it

* In some neurotics, neurasthenics, and borderland cases, but where the question of insanity, in the general or ordinary acceptation of the term, could not be entertained, I have observed this phenomenon for many years.

gives him evident pleasure to keep on astonishing his hearers with ever-fresh inventions. He has no sense at all of the worthlessness of his conduct. Although he is apparently overcome with emotion at his own fictions, deep or lasting feeling is quite unknown to him. The first place in his character is taken by personal vanity, which urges him to fantastic boasting, to ruthless infliction of injury on his victims, and to senseless squandering of the money he procures, by swindling, theft, and fraud, without a qualm of conscience. If such a personality is measured by the standard of a law-court, it is simply that of a criminal and a swindler. Yet the physician cannot escape from the conviction that the patient has a congenital incapacity for a regular course of life, stronger than all education, experience, and self-control.

Certain fundamental resemblances to former patients are evident, and we must conclude that moral incapacity, like that of the intellect, after reaching a certain more or less arbitrarily fixed degree, is to be regarded as morbid. At any rate, we come very near the limits of action of "morbid liars and swindlers" in the present case. This is more especially confirmed by the obviously *hysterical* features seen in our patient, even if we regard the "disablement of the vocal cord" as a wilful deception. And it is evidently not simple selfishness, but rather an uncontrollable impulse towards an adventurer's life, which always drives him from his situations, and makes him unable as well as unwilling to settle down anywhere. He will certainly have to pay for the indulgence of his tastes in a very unpleasant way, for though the alienist may see in him a morbid personality, it is not probable that a judge will ever regard him as anything but a crafty and dangerous impostor.*

In my own practice I have designated it Peripatetic Mania, and, in certain cases, it requires as careful watching as do the hallucinations of grandeur in the early stages of general paralysis of the insane, in order to protect the finances of the patients or their relatives.—EDITOR.

* A few years later the patient was condemned to fifteen years' strict imprisonment at Vienna.

LECTURE XXX

CRETINISM—CONCLUDING REMARKS

GENTLEMEN,—The appearance presented by the woman, aged thirty-two, who is to be the last subject of our clinical investigations is a very remarkable one. The stature of this grotesque being is extremely stunted, while the outline of her body is almost devoid of form. With a height of 137·5 centimetres, the weight is 70·5 kilogrammes, and the circumference over the navel 108 centimetres, and obliquely over the mammary glands 104 centimetres. In the middle of the upper arm it is 27·5 centimetres, and in the middle of the thigh 54 centimetres. The head is very large in comparison to the height, and is 58 centimetres in circumference. It is placed broadly on the thick-set body, almost without any constriction in the form of a neck. The arms and legs are rather short, and the hands, feet, fingers, and toes are as small and delicate as those of a child.

On closer examination, it is seen that this remarkable disproportion between the head and the height, and especially between the trunk and the extremities, is really caused by an enormous thickening of the skin. The build of our patient's skeleton is rather slight, and the muscles are only moderately developed, but the skin hangs in thick pads round the thorax and abdomen and the upper arms and thighs. Behind the neck it forms a hard cushion, which can only be moved as a whole, looking from the side exactly like a considerable kyphosis. The breasts hang down in the form of large flabby sacks, and huge masses of skin quiver round the upper arms, on the surface of which it is no longer possible to take up a fold. The clumsily-thickened neck disappears to a great extent in a gigantic double chin, reaching from ear to ear.

The face is broad, the eyes project slightly, the cheeks form firm

rounded cushions. The root of the nose is sunken, broad, and flat, and the small organ itself is turned up. The malar bones project. The lobes of the ears are almost entirely wanting. The hair and teeth are fairly well developed, while the eyebrows are scanty. The aspect of the face is fixed and mask-like, as even in laughing and speaking all the finer plays of expression are absent in the heavy features. The thickened skin offers a firm and elastic resistance everywhere, and there is no pitting on pressure. The movements of the eyes, pupils, tongue, arms, and legs are normal, and there is nothing abnormal to be found in the reflexes. The patient's psychical condition makes it impossible to test the sensibility of the skin exactly. If you try to prick her with a needle, she pushes you away violently, but leaves the needle sticking in when her attention is diverted. Tapping the middle branch of the facial produces a slight twitching of the upper lip. The pulse is small and easily compressed.

Our attempts to obtain information as to the patient's psychical condition meet with considerable difficulties. She looks round her curiously, but pays no attention to the questions addressed to her, or, at the best, now and then gives an evasive and generally a jocular reply. Her name is "Nobody," she is forty-five years old, was born on the 45th of August, is the daughter of the regiment, is a cattle-drover at home. If she is pressed, she becomes irritable, throws out some indecent terms of abuse, and gets up clumsily to run away with mincing steps. At the physical examination, too, she resists rather violently, at first cries "Go away," and "Leave off," and hits out, but all in a playful way. Finally, she acquiesces without any difficulty. To many of the questions she replies "I do not know," or makes use of quite senseless and abrupt expressions.

It is therefore quite impossible at present to form an idea as to whether she is clear about her surroundings. I may, however, add, on the strength of occasional utterances of the patient in talk and in writing, that she knows where she is, and also knows the names of the people about her quite well. Her mood is cheerful and exalted. She often breaks out into a short, jerky laugh, without any cause, or begins to sing a ballad or a street song in a shrill voice. She obeys orders with reluctance; she puts away her hand when she is asked to give it, but then strikes hands with a loud clap. She sometimes repeats words she hears or questions that are asked her several times over, and she has

a decided tendency to make rhymes, such as Herr Lehrer, Herr Scheerer ; doctor, gelockter. She writes her name correctly on the blackboard, and does a simple sum. All further attempts to test her knowledge are defeated by her resistance, accompanied by vacant laughter and clucking movements of the tongue.

It is easily seen from the patient's behaviour that she suffers from a considerable degree of imbecility. This imbecility reminds us to a certain extent of the last stages of dementia præcox, more especially in the vacant laugh, the echolalia, and the indications of negativism. But the patient's physical condition is so remarkable that we must now turn our attention to it. The thickening of the skin can only be due to *myxœdema*, and points to the fact that *the activity of the thyroid gland* must have been *defec'ive*. If we touch the patient's neck, which is 32·5 centimetres in circumference, we feel on the left side, near the windpipe, a swelling the size of a small apple, and as hard as stone, which is evidently the apparently calcified thyroid gland. The patient's dwarfish stature, and the enlargement of the skull, show that the activity of the gland must have ceased *in childhood*. Therefore we have not to deal with ordinary myxœdema, but with that form of the disease which attacks even children, and is called *cretinism*.

Cretinism is an *endemic* disease, which is rather widely spread, especially at the foot of the great mountain ranges. It affects a number of different species of animals. The germ of the disease seems to be carried by drinking-water. Under its influence, the thyroid gland shrinks or degenerates, and the change in the skeleton, the skin, and the nervous system seem only to be caused by the failure of the action of the gland. Our patient does, in fact, come from a neighbourhood where cretinism is indigenous, and of a family in which insanity, including that of the cretinistic nature, has often occurred. Her father was feeble-minded, and so are her brother and a maternal uncle, while a cousin on her father's side suffers from maniacal-depressive insanity.

The patient was mentally ill-developed from her childhood, and very obstinate and difficult to bring up. The menses only appeared when she was eighteen years old, and were often in abeyance for a long time, even for a year. After the period of physical maturity, the patient complained a great deal of headaches and loss of sleep, was excited and irritated, and was

finally brought to our hospital on that account nearly eight years ago. She proved even then to be very imbecile, and gave little more information than she does now. Sometimes she expressed vague ideas of persecution and grandeur, and spoke of sexual assaults at night, and of a gold ornament. Generally she was a good deal excited, chattered to herself incoherently, and more or less unintelligibly, made rhymes, puns, and simple jokes, pulled up the doctor's coat, pulled his pocket-handkerchief out of his pocket, gave him a push when he was not looking, ran about with her clothes pulled up, masturbated, and tore up clothes and bedding. She looked at her shapeless features reflected in the window-panes with great satisfaction. At other times she was quieter, unsociable, and surly, but always extremely poor in thought and devoid of deep emotion. When visited by friends or relations she remained quite indifferent. She was occasionally dirty, even intentionally, but could be trained to order and cleanliness to a certain extent. Her sleep was good, and her appetite still better, and consequently she increased in weight pretty steadily from the time of her admission, gaining about 21.5 kilogrammes.

Under these circumstances, the obvious course was to try to improve the patient's condition by administering thyroidin. This was done repeatedly, and always reduced her weight, the first time by 10 kilogrammes. At the same time menstruation recurred after a cessation of two years, and returned pretty regularly from that time onwards. But no improvement in the psychical condition could be discovered on examination. Latterly, when the remedy was administered, a feeling of very great weakness set in. The patient wished to stay in bed, the pulse became very small and frequent, and œdemata were observed, which soon induced us to discontinue the treatment. However, the patient had appreciated the effect of it quite well herself, and often begged to be made thinner again. In children with incipient cretinism all trace of the disease may be removed by the administration of thyroidin, but in this case we must suppose that, with the long duration of the malady, changes have taken place in the cerebral cortex which are now incurable.*

Cretinism is one of the few forms of insanity in which we can obtain at any rate an approximate idea of the connection

* The patient is still in the hospital unchanged.

between cause and effect. We know that the disease only arises when the activity of the thyroid gland is arrested, but is certain to arise then. As the pernicious effect of this injury is obviated by the introduction of dead thyroid matter, derived from animals, the action of the thyroid gland, which comes under consideration here, can only be to afford a material absolutely necessary to the regular economy of the body. Whether this substance is directly needed for the building-up of the tissues and the carrying-on of their work, or if its use is to destroy other and injurious matter, as seems more probable, is still uncertain. In any case, we have, both in cretinism and in myxœdema, an example of the fact that the destruction of a small constituent portion of the body may bring about severe disturbances in its whole economy, and, more especially, may be the cause of insanity. It makes no difference in what way the destruction of the gland is effected—whether by excision, tuberculosis, syphilis, the formation of tumours, the endemic poison of cretinism, or any other injurious influence. Quite dissimilar external causes may thus produce the same picture of disease by destroying the same link in the chain of the process of metabolism of the tissues, and thus giving rise to the same morbid changes in the physical and mental economy.

Our knowledge of such connections is of very recent origin. It is therefore conceivable that similar relations may some day be discovered in other forms of insanity. Perhaps we may hope more especially for some such enlightenment in *general paralysis of the insane*. As we have already intimated, this paralysis is far from being a simple disease of the brain. Indeed, the most different tissues of our body are involved in such a way that it is impossible to explain the disturbances simply as a condition resulting from changes in the brain. Here, too, profound and universal revolutions must take place in the physical economy, of which the immediate cause is as yet completely unknown. On the other hand, we know with absolute certainty the more subtle and remote cause of general paralysis, or, at least, of the principal group of cases which we include under that name—that is, syphilis. Yet the paralysis, as is shown by autopsies, and the inefficacy of anti-luetic treatment, can hardly be a simple form in which syphilis appears. Apparently, there is some intermediate link, by the agency of which the syphilitic poison produces the paralytic affection of the whole body.

Far more mysterious is the origin of the enormous number of

illnesses in which, from the clinical point of view, a peculiar feeble-mindedness, and from the anatomical standpoint, extensive disease and destruction of important constituent parts of the cortex arise without any tangible cause. The foremost place among these is held by the widely-diffused varieties of *dementia præcox*. Obvious as may be the clinical resemblance of this disease to general paralysis in many respects, it has proved impossible so far to discover any external injurious influence which may have produced it. We only know that the years of physical development form a favourable soil in which the disease may break out, as is also the case in maniacal-depressive insanity. Moreover, the work of reproduction in women, and, lastly, deprivation of liberty, seem also to favour its appearance. The absence of external causes in this disease, and its relation to special radical changes in the physical economy, might perhaps suggest that here too we have an illness of which the final cause must be sought in disturbances in the metabolism of the tissues. The same may hold good of certain groups of idiocy and of some rare forms of extensive disease of the cortex which clinically rather resemble the picture of general paralysis.

Very wide recognition has been given to the opinion that *epilepsy* also is occasioned by definite poisons, produced in the body itself. Substances have even been pointed out which are supposed to play the part of causes in this disease, and methods of treatment have been based on such ideas. Our uncertainty as to the question whether, and how far, epilepsy is one single disease at all makes the clinical consideration of the subject very complicated.

But if there be wide departments here in which we are obliged to proceed by quite indefinite conjectures, we do know a little group of clinically similar affections in which we can make definite and tangible external causes responsible for the development of feeble-mindedness: I refer to feeble-mindedness after *acute infectious diseases*, particularly after typhus and small-pox. Here we see how the poison of the disease, whether directly or by the agency of organic affections, occasions disturbances in the tissues of the cerebral cortex which may produce the clinical picture of incurable dementia. We can hardly doubt that we have to deal with toxins in such cases, and these experiences suggest the conjecture that ordinary *dementia præcox* and the allied forms of idiocy may also have poisoning of the cerebral cortex for their

immediate cause, although we are not yet in a position to discover their more remote origin.

But it is only very occasionally, by comparison, that the acute infectious diseases lead to permanent dementia. As a rule, the disturbances caused by the poison of the disease disappear during convalescence. After articular rheumatism and erysipelas in particular, incurable disturbances seem absolutely never to occur, although both these diseases are rather frequent causes of insanity. These examples, which prove that unmistakable and severe poisoning of the cerebral cortex may gradually disappear completely, help us to understand, to a certain extent, the *remissions* we so often observe in both general paralysis and dementia præcox. In these affections, however, a further advance of the illness almost always takes place sooner or later. This points to the fact that here, in contrast to what occurs in infectious diseases, the source of the poison is not exhausted, but may at any time show a renewed activity.

Multiple neuritis has a special position among the infectious diseases. It is seen to appear both after infection and also as the result of the abuse of alcohol. It is possible that there may be different diseases in question here of which only the symptoms are alike, or alcoholism may perhaps afford a particularly favourable soil for the infection. In any case, we see that a poison arising from infection, and also a means of indulgence acting either in concert or independently, produce a particular form of mental derangement. This disease, therefore, in a certain sense, forms the transition from infection to simple *poisoning*, such as *alcoholism*, *morphinism*, *cocainism*, etc. It is from the investigation of this particular group of mental disturbances that I think we may chiefly hope for the advancement of our clinical knowledge, as cause and effect are here so plainly defined that we can easily draw conclusions as to the former from the latter, and *vice versa*. We can produce the same disturbances at any time with the utmost certainty by introducing the poison, and so can follow out in the minutest detail the invariable relation between the injurious influence and its effects, not only in clinical observation, but also in psychological experiments.

By such investigations we can easily discover that in poisoning, as in other illnesses, we have to distinguish between direct and indirect effects. The morbid conditions produced by the abuse of alcohol are far more varied than we should naturally expect

the effects of a single cause to be. Among them all, only intoxication, pathological intoxication, and simple alcoholic feeble-mindedness agree with the experience afforded us by psychological investigation. Other forms, particularly delirium tremens and alcoholic delirium, have entirely different features. These and other reasons lead us to suppose that we do not see the direct effect of the poison in these diseases, but have to deal with conditions resulting in the body, only *indirectly* brought about by long abuse of alcohol. The relation between cause and effect here is possibly similar to that between the endemic cause of the disease and the feeble-mindedness in cretinism, or to that which we assume between syphilis and general paralysis of the insane.

Those forms of insanity which follow as the result of *exhausting influences*, and particularly of severe mental, emotional, or physical overstrain, are usually also explained as the effect of poisoning, but of poisons originating in the body itself. It is assumed that in such cases the waste products which are produced in excessive quantities cannot be eliminated from the body or rendered harmless quickly enough, and so find an opportunity of exercising their baneful effect on the cerebral cortex. Although this question does not seem to me ever to have been satisfactorily answered, the possibility of such occurrences in acute and chronic nervous exhaustion can hardly be disputed. But here the expenditure by the tissue of its reserve of strength might also have some effect, even if it does not appear to be the principal cause.

Besides the effects of poison, it is only the *grosser lesions of the tissue of the cortex*, brought about by hæmorrhage, laceration, pressure, interruption of the supply of blood, and similar injuries, that we are able to understand to any real extent at present. Perhaps we may include with these what is called *concussion of the brain*. The gradual change in the cerebral cortex in *old age*, which we have learned to recognise as the foundation of various forms of mental disturbance, is much less clear. It must be considered quite uncertain whether definite alterations take place from the first in the tissues themselves, or if the disturbances are the result of changes in the bloodvessels or of some other radical changes in the body, as age advances. Many forms of senile insanity leading speedily to severe dementia seem to favour the latter possibility, but it is certainly most probable, considering the variety of the clinical conditions presented by the mental

diseases of old age, that the ways in which they arise also differ from each other on many points.

The effect of the physical and mental changes of old age, apart from the results of diseases and of the life-history, depends to a great extent on the *personal idiosyncrasy*. And in the other forms of insanity also this is often a very important factor, and the more so the more superficial the injury which brings on the illness. On the one side are poisons, which, when taken in sufficient doses, overpower any brain, however great its power of resistance may be. At the other pole we find diseases of which the essential cause lies in the personal idiosyncrasy, and in which external influences only give an immediate impulse to the outbreak of the illness, and under some circumstances may be altogether absent. As examples of these forms, we have *maniacal-depressive insanity*, *paranoia*, and also *hysteria*, to which *fright neurosis* is closely allied, although here the external cause is of much greater importance.

The various forms of morbid disposition which we have seen in *permanent psychopathic deterioration*, in insanity with *irrepressible ideas*, *irresistible fears*, and *uncontrollable impulses*, and, finally, in the manifold forms of *congenital feeble-mindedness*, are still less dependent in their origin on particular injurious influences. Here we have always to deal, not with the incidents in a definite course of disease, but with morbid *states*, which continue throughout the whole of life with substantially the same intensity, although sometimes with certain fluctuations. We are therefore justified in considering them to be the outcome of *degeneration*, which in most cases is not acquired by individuals, but is inherited by them, and is generally handed on to succeeding generations.

If you will now look back along the whole course we have traversed, you will see that mental disturbances may arise from the single or repeated introduction of such poisons as cause considerable injury to the cerebral cortex. Moreover, similar poisons may be produced by provocatives of disease which force their way into the body, and may also arise from the processes of tissue metabolism. The effect of these poisons may perhaps be connected with excessive expenditure of the reserve of strength existing in the tissues. As we suppose, a further source for the production of poisons may be found in the disorders of particular organs of the body of which the action is necessary to its economy.

Certainly, it is only in cretinism that this assumption is at all safe, but evidence is accumulating which suggests that other facts in the province of our science will prove to be susceptible of similar explanations. In addition to the poisons, we must also ascribe a part in the origination of mental disturbances to the more or less complete destruction of the tissue of the cerebral cortex, and to changes brought about in it by old age. The last group of forms of insanity consists of morbid conditions, existing from childhood, which either persist without alteration or form the basis of various disturbances running their course in a series of attacks.

Such, in their essential features, are the points of view from which the clinical forms of insanity may be grouped to-day. Always starting from the relations of cause and effect, we may hope to discover clinical pictures such that the similarity or dissimilarity of the conditions under which they arise will find a clear expression in their phenomena, course, and termination. It is true that at present we are still met by obscurity and doubt at every step in forming a practical judgment on the material of clinical experience. We are still so far removed from a real knowledge of the causes, phenomena, course, and termination of the individual clinical forms that we cannot yet dream of a surely established edifice of knowledge at all. What we have formulated here is only a first sketch, which the advance of our science will often have occasion to change and enlarge in its details, and perhaps even in its principal lines.

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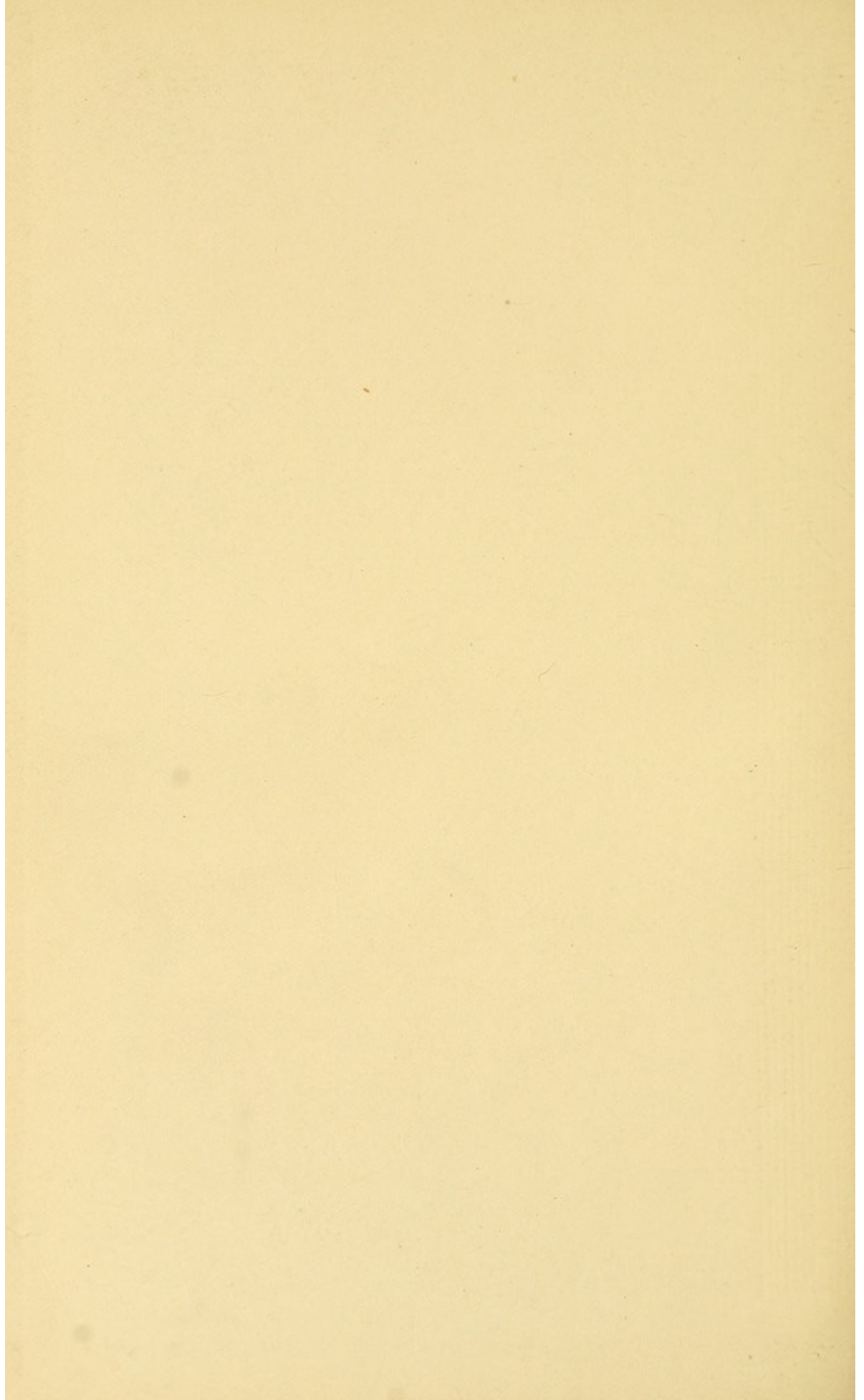
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