Clinical manual of mental diseases : for practitioners and students / by A. Campbell Clark.

Contributors

Clark A. Campbell.
Royal College of Physicians of Edinburgh

Publication/Creation

London : Bailliere, Tindall and Cox, 1897.

Persistent URL

https://wellcomecollection.org/works/ckx7vkbh

Provider

Royal College of Physicians Edinburgh

License and attribution

This material has been provided by This material has been provided by the Royal College of Physicians of Edinburgh. The original may be consulted at the Royal College of Physicians of Edinburgh. where the originals may be consulted.
This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

MANUAL
OF
MENTAL DISEASES

CAMPBELL CLARK

UNIVERSITY SERIES

10/6

25.4

R17485

CLINICAL MANUAL

OF

MENTAL DISEASES

THE OLD TREATMENT AND THE NEW.



THE OLD.



THE NEW *Frontispiece.*

CLINICAL MANUAL

OF

MENTAL DISEASES.

For Practitioners and Students.

ROYAL COLLEGE OF PHYSICIANS, EDINR.
LIBRARY.

BY

A. CAMPBELL CLARK, M.D., F.F.P.S.G.,

Mackintosh Lecturer on Psychological Medicine, St. Mungo's College, Glasgow,
Medical Superintendent of Lanark County Asylum, Hartwood.

UNIVERSITY  SERIES.

LONDON:
BAILLIÈRE, TINDALL AND COX,
20 & 21, KING WILLIAM STREET, STRAND.
1897.

[*All rights reserved.*]

Digitized by the Internet Archive
in 2016

https://archive.org/details/b21699938

PREFACE

WHY a preface begins with an apology, I have never been able to understand. A book must stand or fall very much on its own merits, and an apology will not help it. I am not concerned, therefore, to offer an apology for the appearance of this work; but a certain explanation is due to those for whom it has been written.

A search may be made in its pages for pathological teaching. Of such there is none. The pathology of insanity has yet to be written. We have had to retrace our steps in this respect, and begin *de novo* with what in bacteriology are called 'control experiments'; in other words, we required to be certain of normal data before we could determine what are abnormal. Dr. Robert Hutchison obtained from the post-mortem room of the Royal Infirmary, Edinburgh, reputedly normal brains. From these he cut sections and examined them, and he discovered in them, what have hitherto been regarded as pathognomonic of some forms of insanity—vacuolation of nerve cells, pigmentary degenerations, etc.

It is true that excellent and valuable work in brain histology has been done by Golgi, Ramon y Cajal, Bevan Lewis, Batty Tuke, Wiglesworth, Ford Robertson, and a host of others too numerous to mention; but a sifting process is now necessary,

and some articles of pathological belief require to be discarded before a process of reconstruction is begun.

The preparation of this work, which is necessarily limited in its contents—published as it is for general practitioners and students—was undertaken because of the new regulations, which make mental diseases a compulsory subject of medical study. An examination in this subject is not required by all examining bodies; but all are agreed that the clinical study of mental diseases is most important.

I have to acknowledge the valuable assistance received from Dr. T. Alf. Beadle in correcting proofs with me, in collecting clinical material, and in other ways. To Miss Julia F. Ferguson and Dr. Charles A. Bois I am indebted for the careful preparation of the Index, and to Dr. Bois still further for help in other directions.

A. CAMPBELL CLARK.

CONTENTS

CHAPTER		PAGE
I.	MENTAL CONSTITUTION	9
II.	MENTAL CHARACTER—MENTAL HEALTH	21
III.	SLEEP—INSOMNIA AND ITS TREATMENT	33
IV.	THE EXAMINATION OF MENTAL CASES—DIAGNOSTIC CHARACTERS OF INSANITY	47
V.	CAUSATION — PROGNOSIS — GENERAL PRINCIPLES OF TREATMENT	68
VI.	GENERAL PRINCIPLES OF TREATMENT (*continued*)	89
VII.	MELANCHOLIA—KATATONIA—CATALEPSY	101
VIII.	PARTIAL INSANITY—CHRONIC PROGRESSIVE DELUSIONAL INSANITY	125
IX.	MANIA—ITS VARIOUS FORMS	145
X.	ANERGIC STUPOR, DEMENTIA, INSANITY OF MASTURBATION, MORAL INSANITY, IMPULSIVE INSANITY	173
XI.	GENERAL PARALYSIS OF THE INSANE	197
XII.	EPILEPTIC INSANITY	224
XIII.	EVOLUTIONAL AND DISSOLUTIONAL TYPES	251
XIV.	INEBRIETY—ALCOHOLIC INSANITY—OTHER FORMS OF INEBRIETY—SYPHILITIC INSANITY	280
XV.	INSANITY OF PREGNANCY—PUERPERAL INSANITY—INSANITY OF LACTATION	311
XVI.	PUERPERAL AND ALLIED INSANITIES (*continued*)—INSANITY OF LACTATION	340

CHAPTER PAGE

XVII. CONSECUTIVE OR CONCOMITANT INSANITIES - - 360

XVIII. MENTAL DEVELOPMENT RETARDED OR IMPAIRED AS DISTINGUISHED FROM IMBECILITY AND IDIOCY—THE BACKWARD AND FEEBLE-MINDED - - 391

XIX. IDIOCY AND IMBECILITY - - - - 416

XX. THE LEGAL AND CIVIL ASPECTS OF MENTAL DISEASE —THE FUNCTIONS OF MEDICAL MEN IN RELATION TO THESE - - - - - 438

INDEX - - - - - - - 479

CLINICAL MANUAL OF MENTAL DISEASES

CHAPTER I.

MENTAL CONSTITUTION.

An elementary knowledge of mental constitution is the necessary foundation of a knowledge of mental disease—Mental development in the child—The senses first in evidence—Defects of sensation in idiots—Perception of distinct sensations—Time sensation—Space sensation—The senses aid each other—The genesis of the emotions—Inquisitiveness and acquisitiveness—Imitation the beginning of volition—The evolution of the faculty of language—The memory—The moral sense, precocious in some, retarded in others—Sensation and voluntary movement connect mind with the environment—Mental constitution, its component parts and their attributes—Mental endowments—Musical, artistic and poetic faculties, sense of humour, and imagination.

To the question, What is metaphysics? a shrewd Scotch rustic replied, 'When the person wha listens disna ken what the person wha speaks says, and when the person wha speaks disna ken what he says himsel', that's metapheesics.' This broad-humoured tilt at the clashing contentions of philosophers, among whom his own countrymen were not the least conspicuous, had a vein of truth in it.

To the average student the study of mind is wearisome and unprofitable, but every subject of study must have a foundation, and an elementary knowledge of mental constitution is the necessary foundation of a knowledge of mental disease.

The simplest way to approach the study of mind is to study its beginnings in the child. When this is done, the general features in relation to each other can be better

appreciated. To begin then, see what child-life reveals to us. First, there is a reflex instinctive organism, and nothing more. It neither sees nor hears at first. The lines of sensation are completely laid at birth up to the cerebrum, but connecting links are incomplete.

Very quickly taste and smell are manifested; it may be in two or three days at latest. At different times in different individuals, just like the teeth, do the other senses develop, and yet their exercise is still of the most rudimentary kind. The whole range of sensation is a wide one, and the education of the senses is a very elaborate process. The senses must have practice, for use increases rapidity and accuracy of transmission, and the qualities of sensation—*e.g.*, form, colour, sound, pitch, heat, cold, and other discriminations—are the acquired results of sense education.

In the study of mind, therefore, you begin with sensation; you inquire as to the efficacy of the special senses, and you note their deficiencies. In idiots you will often observe defects of sensation, and one form of idiocy is known as 'idiocy by deprivation of special senses.'

There comes a time very early in child-life when the function of sensation is so far perfected that the child is able to perceive one sensation as distinct from another, not only because the one succeeds the other (time perception), but because the sources and directions of sensations are different (space perception).

Preyer's observations with regard to *time* and *space* are as follows: (*a*) *Time.* If two simple sensations, two lights, two tones, two pricks, are apprehended as twofold, then the child apprehends one of them after the other; the difference between them is time. (*b*) *Space.* Relations of space the child learns through his own experience exclusively, through failures in seizing objects, errors of vision, hits, falls, movements of the eyes and head, and through the perception that objects are brighter or darker as they are near or distant.

A very important point for you to consider is that the senses aid each other. Touch is very useful in this way; and it is a curious illustration of how a good habit becomes a bad one, that, when objects are exhibited in public, a con-

spicuous notice has to be placed bearing the words 'Do not touch.' This tendency to touch what can be appreciated perfectly well by the aid of sight alone is a habit continued from childhood, when the education of sight was frequently assisted on appeal to the sense of touch.

The genesis of the emotions is evident at an early stage of child-life. In animals the emotions are unrestrained, for intellect is *nil* or rudimentary, and the same may be said of emotions in idiots, who are the nearest approach in the human creation to the animal type. The emotions most noticeable in either the child or animal are fear, anger, love, jealousy, hatred. In the child, however, sensation and emotion are only the beginnings of progressive mental evolution. It passes from lower to higher levels of development, leaving the idiot and the animal far below.

The child soon ceases to be afraid when sensations of the same kind are frequently repeated. In the normal child wonder or astonishment, and then curiosity, take the place of fear. Inquisitiveness and acquisitiveness now come into play, and the march of intellect has begun.

When is there any evidence in the child of the exercise of will? It is generally regarded that the appearance of imitative movements is the first evidence. A child cannot imitate without having some previous idea of the movement. As Preyer puts it, he must have an image of the movement in his mind. He must, therefore, initiate a movement to correspond with the image, and this means an effort of will. The ladder of progress is here manifest—first, sensations from which arise perceptions, then memories (images of movements), ideas, and will.

A child thinks at first without words; language is a specially human function, and it comes later. Cause and effect have puzzled his little mind, and conclusions right or wrong have been deduced long before he can think in words or speak them. True, there is a language of expressions, of sounds and signs, which his imitative faculty enables him to make use of, and which, in proportion to its fulness and variety, indicates further intellectual development.

The time when true articulate speech is first uttered varies

in different individuals; it may be in the second year, or not till the fourth. Some children in whom speech has been delayed have been known to utter a short sentence as their first contribution, showing that the faculty of language had been progressing for some time, although the motor mechanism gave no sign.

The memory of the child, so far as we can hark back in our own experience, may be traced to about the fourth year; that is to say, we can remember things as far back; but the child could never learn what it has learned up to that time without memory of some kind, however primitive. Yet it is only when the child is conscious of his own identity, when ideas take possession of his mind, and when speech comes to him, that memories that are lasting, and can be referred to afterwards, begin to be formed.

Preyer observes that the child's memory in any single department of sense is weak, and illustrates this by reference to an observation made by Professor Baldwin, of Toronto, as follows: 'The nurse of a child six and a half months old, with whom the child had lived for five months, left it for three weeks, and was instructed upon her return (1) to appear in her ordinary dress, but without speaking, (2) then to speak in her ordinary manner without being seen, (3) finally to appear and sing a song that the child had not heard during the three weeks of the nurse's absence. At the first the child stared with a questioning look, but gave no sign of recognition and no sign, to be sure, of fear or antipathy as at the sight of a stranger. At the second there was no recognition; the voice, therefore, did not suffice. At the final the recognition was complete.' And so ever through life one sense impression aids another where memory is weak or at fault.

The origin of a moral sense has no certain period, and precocity is rather a bad than a good sign. Clouston quotes the case of a small boy whose conscientiousness was most acute, and who balanced the pros and cons of moral obligation and duty with a fineness of point that was really absurd, and yet the same boy a few years later was a moral imbecile. My experience is that a late development of the moral sense,

in many cases, is safer than a very early one. It is often retarded by fear and injudicious upbringing.

The outline sketched here gives the chain of sequences in the mental development of the child, beginning with sensation, and ascending upwards till the moral faculty appears. The beginnings are established, but the complicated constitution of mind is not yet reached; nor can anyone predict what the character of the coming man or woman will be. We are accustomed to say that the child is the father of the man, and to predict—seeing that we know—that because Washington never told a lie, and 'never saw fear,' that he was sure to become a great man; but there is nothing more uncertain than the precise differentiation of character that will unfold itself during later childhood, puberty and adolescence.

Sensation may properly be regarded as the starting-point of mental development, and after it the higher centres, emotion, intellect, volition and moral faculty are slowly, laboriously, but surely evolved. This process of evolution is very interesting. The idea that a man's mind, character and habits are the result of a multitude of experiences acting on a plastic organism, that these have a time relation to each other, that the first are most firmly rooted in memory, and the last the least persistent—this idea, I say, has given rise to speculations regarding mental disease of a very practical kind.

If mental disease is a process of dissolution, does it reverse the order of evolution and wipe out the last experiences, the last acquired habits, first? In the study of mental disease there is much to support this conclusion, and much to throw doubt on it. In the insanity of old age it is quite common to find the patient enacting the life of forty or fifty years ago. Ask that old woman who bustles about with tottering steps and waning sight what she is doing; her answer is, 'Making Jim's supper.' There is no fire or cooking utensil near, her husband died twenty years ago, but she thinks she is again a young married woman surrounded by her children, and, if you ask her age, she will tell you she is twenty-five.

Not long ago I attended an old lady whose brain functions had gradually become obliterated till only the organic and

the sense of taste remained. The first sense to develop, it was the last remnant of her mental evolution. I might illustrate this point further, but there is no occasion. I have said, however, that there is much to throw doubt on this theory of the sane evolution and insane dissolution, and it is seen in general paralysis of the insane, where the order of dissolution is not strictly reversed. The habit of hoarding rubbish—which is a boy's habit—is an early symptom, and appears before the dissolution of habits and memories acquired in later life.

These observations are interesting as showing how really useful some knowledge of mental development and the constitution of mind must be if we would intelligently study mental disease; but I promised at the outset to deal in a simple manner with the subject, and a few words are all that need be spoken regarding mental constitution in man.

From what has been already said, it is evident that the foundation of mental constitution must be sensation. Before ever there was a mind, sensation was there, its lines laid in all directions. Extending beyond its centres are gradually opened up the lines of mental communication, as a result of sensations, these flooding centres of taste, smell, sight, hearing and touch, until at last these lines of mental communication open outwardly into the voluntary motor system, and the circuit is completed thus: sensation, mind, voluntary movement, environment.

Sensation and voluntary motion, therefore, connect mind with its environment. In this way man receives impressions from without, and responds to them.

The mental constitution has four parts that are quite familiar: (1) the Intellect; (2) the Emotions; (3) the Moral Nature; (4) the Will and Impulses. Unfortunately, this classification and its further analysis is not treated with the respect due to its age by those who indulge in modern speculations; but it is convenient and useful for medical practice, and a more abstruse treatment of the subject will not simplify the study and diagnosis of mental disease.

The intellect is a term synonymous with 'thinking faculty' or 'reasoning powers.' These powers have been variously

enumerated. I propose to name five: Attention, Sense Perception, Apperception, Memory, Language.

The faculty of attention is here recognised because of its importance as an object of study in mental disease. By many writers it would be absorbed in apperception and sense perception; but it is better that we should regard it as standing by itself, especially as the term is familiar and in common use. We are accustomed to speak of 'fixing our attention,' 'attention wandering,' etc. You will very frequently find this faculty affected in mental disease.

We may regard the intellect as operating under two different conditions: (*a*) Consequent on sense-stimuli. We have an example of it in the study of an object under the microscope. This is sense perception. (*b*) Independent of or unaware of sense stimuli. An example of this we find in mental abstraction, as in following out a train of thought. This is called apperception, and it is expressed in these words, 'I think' (Kant).

It is well to make use of these two terms: *sense perception*, a mere sensory discrimination, and *apperception*, the exercise of thought or understanding.

The remaining two faculties of intellect, memory and language, are most important. Two kinds of memory have been distinguished: (*a*) spontaneous; (*b*) recollection where the name or quality to be remembered is voluntarily sought for (*vide* Maudsley, 'Physiology of Mind'). It has been found convenient to speak of memory cells, in which impressions are produced and can be reproduced: (*a*) spontaneously, or (*b*) by an effort—*recollection*. It certainly helps us very much to suppose that every idea, word, or other mental impression is, so to speak, photographed in cell structure, and that the *negative* impression may be faint and transient, or deep and lasting. It gives us a working conception that is very useful.

In its broadest sense language is of two kinds: (*a*) inarticulate, or the language of sound, signs, and expression; (*b*) articulate language, the language of words. The former has been called emotional or animal language; the latter intellectual language, and it is really a branch of the memory faculty.

Ideas are the result of perceptions and apperceptions, and may be abstract (size, colour, kindness, cruelty) or concrete (man, elephant, ship, steam-engine).

We are all familiar with the phrase *association of ideas.* What does it mean? Simply this—that one idea suggests another spontaneously (spontaneous memory). According to the education or experience of any man is the amount of variation possible. To a cannibal the sight of a white man may suggest danger or something to eat; but to another white man it would suggest companionship, intercourse, news, and various other ideas. In either case the ideas are reasonable and natural in their association, according to the experience and manner of life of the individual; they are quite intelligent, and we call them coherent.

The following may be taken as a practical lesson of importance in this connection: A man hastening to catch a train sees the signal fall, and immediately puts on more speed. The ideas here are natural and coherent; but if the falling of the signal caused him to stand stock still from fear, because it suggested the idea that he was to be shot, the association of ideas would be insane, and, having no rational connection, would be called *incoherent.* It has been reasoned that the incoherence of the insane is more apparent than real, for words and ideas suggest others, no matter how absurd the association may be to the ordinary observer.

Thus briefly an outline of the intellectual sphere has been given, and more briefly still we must now consider the emotional. Man feels as well as thinks. The pleasures and pains of his life; the passions of joy, anger, grief, hate; the instincts (love of life, or instinct of self-preservation, the maternal instinct, the sexual instinct), are registered in the emotional sphere. The range of emotional activities is so great that much confusion has arisen, and under the head of emotions are classed, often with little discrimination, emotions, feelings, affections, instincts, appetites, desires. Where others have failed to differentiate clearly, we may be excused if we pass on to one phase only of the question, and that a most important one.

Feeling proper is that faculty which registers pleasure or

displeasure (misery). Whatever our sensations or thoughts, the register of feeling responds to them. The two extremes are conscious pleasure and conscious displeasure (misery); but between these extremes there are degrees, and in the register there is a point mid-way where the state of feeling is neutral, indicating neither pleasure nor misery. Somewhere near this neutral point is the registered state of feeling of average man. Clouston says that the normal man has a conscious sense of well-being, but this is scarcely accurate. It is certainly not correct to say that a normal man is always or nearly always consciously in a state of well-being; that he is always in 'good form' and conscious of it, or that he feels that everything is *couleur de rose* with him. As a matter of fact, and an appeal to the average experience of mankind will confirm this statement, the average state of feeling is somewhat neutral and sub-conscious. If depression indicates an abnormal state of mental health, why does exaltation, which is its opposite, also indicate the same? If, as Clouston says, the sense of well-being is an index of good mental health, how about the exaltation of the general paralytic, and why are some patients so content and bright, so cheerful and unrepining, while others, suffering from as acute physical disease, are just the opposite? If an explanation will help us, even though it is a theoretical conception, I would suggest that the anatomical basis of feeling has its own vascular area, which in some individuals is more readily controlled than in others, just as fear blanches the cheek and shame flushes it in some and not in others, and that the degree of ebb and flow indicates the degree of depression on the one hand and exaltation on the other.

A short statement requires also to be made regarding the will and impulses. Here also modern philosophy has been making ravages. Will is regarded as the result of more or less opposing forces, and the old-fashioned diagram in mechanics, illustrating the parallelogram of forces, might just as well be used to illustrate the theory of mental forces more or less opposed to each other, resulting in one force only, a compromise between the two or more contending forces. The

one resulting force is called Will, and is regarded merely as a sequence, not as a separate factor at all.

Again I propose to follow the old way, and speak of Will as a faculty by itself, presiding over the other mental faculties. It is convenient for clinical practice to think of it thus guiding their exercise, determining conduct, and regulating impulses. Impulses spring from emotion or moral sentiment. Will is the judge before whom apperception (the advocate) pleads; but it may be swayed by emotion.

We next consider the question, What is the relative superiority of will over impulse? And a brief reflection is enough to decide that there must here be a sliding-scale. There can be no fixed standard, for the force of impulse depends on the susceptibility of the individual to temptation, and to some temptations more than others, as also to temptations more powerful at particular times.

Speaking generally, it is quite understood that Impulse craves and strives for outward expression, and Will grants free course to impulse, or pulls the reins of inhibition (self-control). These two have been compared to a driver and a horse. Will permits or controls just as the driver permits or controls; but where impulses by frequent indulgence become strong, the will is correspondingly weakened. Will ought to be supreme and unwavering. Self-control is a necessity of a healthy mind.

Without discussing the origin of a moral nature, we accept the fact of a moral feeling or sense occupying a place in every healthy mind. We recognise that in the normal mental constitution there is a knowledge of moral distinctions, of right and wrong; that there is a sense of responsibility, obligation, or duty, and analyze it as we may, that there is such a voice as conscience. In some the moral nature is rigid, in others it is more elastic, much of this depending on inheritance, education, and the social environment.

The description of mental constitution outlined here would not be complete were we to leave out of consideration certain mental endowments which adorn the mental constitution, and are not limited to any particular sphere of mental exercise.

These are the musical faculty, the artistic faculty, the poetic faculty, the sense of humour, and the imagination. How much they are dependent on intellect, and how much on emotion, we need not pause to consider.

The musical faculty requires a musical ear, a true sense of discords and harmonies, a delicate appreciation of rhythm, pitch, and time. It requires to be cultivated by the eye, the ear, and the touch, and by intellectual study. Music sways feeling and emotion, excites pain, pleasure, rapture, exaltation, and disperses waves of sense and motion through the nervous system.

In like manner the artistic faculty calls forth the exercise of many mental and nervous functions, for it takes note of light and shade, form, proportion, perspective, expression. It also speaks to intellect and emotion, educating intellect and stimulating emotion.

The poetic nature has its creative and receptive side. While few are poets, many are receptive and appreciative of poetry. Culture and experience aid the receptive more than the creative faculty. The poetic nature is eminently sensitive, and is capable of intense feeling and emotional excitement.

The sense of humour is native in most persons, and it can be fostered and quickened by education and exercise. It is a boon to man and a safeguard to mental health. A mind devoid of this sense lacks a safety-valve, and inclines more readily to be morbid.

The faculty of imagination is creative. By its exercise mental pictures arise, and new presentations of ideas. This is well illustrated in day-dreaming. Here revel the poet, the artist, and the musician. The philosopher and the scientist find their highest intellectual pleasures in the realms of imagination. Mind without some degree of imagination cannot be conceived. The play of fancy of which it is capable is endless. Even the simplest, most illiterate toiler has his daydreams. Shut off mind from its environments, and yet a man is not limited to his old stock of ideas. He creates new combinations, calls up memories, creates new ideas, and transports himself into relation with new per-

sonalities. The faculty of imagination has considerable play in some individuals, and where its range is limited, either by inherent defect or by wholesome restraint, a man is regarded as 'level-headed' or 'matter-of-fact.'

Briefly, then, we have here reviewed the features of the mental constitution which require to be recognised, and we next proceed to consider mental character, which is the outcome of it, and gives individuality to man.

For more intimate knowledge of the subject, the following works may be consulted: Maudsley, 'Physiology of Mind'; Hyslop, 'Mental Physiology'; Ladd, 'Physiological Psychology'; Ziehen, 'Physiological Psychology'; Kirchner, 'Manual of Psychology.'

CHAPTER II.

MENTAL CHARACTER.—MENTAL HEALTH.

Mental character, the physiology of mind—Individuality: each man's mind is a law unto itself—Mental character determined by the law of individuality which is affected by (*a*) evolution, (*b*) dissolution, (*c*) environment—These explained—Mental health—How it is maintained, and how disturbed—Mental hygiene.

THAT which makes man most interesting — his mental character—now comes under consideration. All men have essentially the mental constitution which has just been described, but mental function is very different in different individuals. Of the genius and the clodhopper it can be said that they are both gifted with senses, intellectual faculties, emotions, etc., just as they are gifted with organs of circulation and muscular systems; but how different the results!

We may speak of mental constitution as the anatomy of mind, and of mental character as the physiology of mind, or of the two as the producer and the products. It goes without saying that the revelations of man's mind give us a man's character. These revelations are manifold, and we judge sometimes by what he does not express as well as by what he does express.

It also goes without saying that no two men are precisely alike in character—not even twins. The individuality of a man is not so much in his physical features as in his mental character.

If the labourer whose imagination does not rise above the level of his daily toil, whose ideas are limited to his pickaxe and shovel, his weekly wage, his pipe and grog, should to-morrow begin to recite poetry, or even the merest doggerel, you would recognise a false note in his individuality; and if

the cultured student, the budding genius of poetry, should to-morrow descend to doggerel and mediocrity, you would recognise a false note there also.

The diversities of individual character have no limit. There is to be found a type of diffidence and self-distrust as opposed to a type of self-assertion and self-sufficiency. You recognise also a type which is cynical, critical, argumentative; and its opposite, which is ready to concede almost anything for the sake of peace. These sufficiently indicate that there is a mental individuality which marks out one man clearly from another, and this mental individuality may be thus defined: *Each man's mind is a law unto itself; what is normal in one man may be abnormal in another.*

Mental character varies at different ages and under different conditions in the same individual, and it is determined by the exercise of certain laws. First and most important is the law of individuality, which is affected by three other laws—(*a*) evolution, (*b*) dissolution, (*c*) environment.

The law of individuality is not so rigid that a man must of necessity think and feel and act always in the same way. It is elastic enough to allow variations of normal character within certain limits. The emotions of grief and remorse so overwhelming at the present moment may be assuaged to-morrow. The shyness and timidity so distressing at one moment may later give place to courage and self-assertion. The imagination, which in the morning is clouded, may, as the day advances, brighten and revel in brilliant ideas. Each mental character, therefore, has its limits of contraction and expansion, and within these limits there is the condition known as mental health, for the changes which have been described are the necessary variations of a normal elasticity.

The law of individuality is modified by the laws of evolution and dissolution. We are not the same to-day as ten years ago. It is not possible for us to think, feel, and act in the same way. We are children of a larger growth, of a wider horizon, of greater knowledge and broader sympathies. The child-mind is microscopic, and exists in a microscopic

environment. Its intellect is budding, and life is charged with emotions. To chase a butterfly, pursue a rainbow, or blow soap bubbles are the only objects of existence. 'Sufficient for the day is the evil thereof.'

While birthdays come and go, it is noticed that the child has been acquiring ideas and forming simple syllogisms not always infallible; that it has learned to abstract ideas from concrete objects, and to indulge in little day-dreams. Training begins to develop habits of study and conduct, and the moral sense becomes more acute.

At puberty phenomenal changes occur of a physico-sexual character, which are reflected in the mental character. There is generally a rise of self-consciousness and egotism, affectation and conceit, and a gradually increasing sense of personal responsibility. There is also noticed frequently a shyness of the male in the presence of the opposite sex, a disposition to be opinionative, and to affect a character of manliness.

Adolescence is a more fully-developed stage of sexual evolution. Increase of stature is less marked, and will cease in this stage; but the physical proportions are increased perceptibly in other directions, while the whisker makes its appearance, and a more stable and serious mental character is gradually unfolded. There is still self-consciousness and egotism, but their manifestations are less crude and *outré*, the imaginative faculty takes a wider range, and the poetic faculty finds vent particularly in verses of amorous expression. That kind of literature which pleases the mental palate of the boy—stories of adventure and brave deeds—gives place to novels which quicken the affective senses and exalt the sexual emotions.

The relation of the sexes is entirely altered with the appearance of puberty and adolescence. Self-consciousness and egotism are even more marked in the girl, and there is at first repulsion which changes to attraction during adolescence. The opinionativeness which we notice in the boy is still more marked in the girl. She is patronizing, fond of giving her opinion, desirous of attracting attention to herself, and given to affectation. There is in either sex an eager-

ness, a state of mental unrest, a craving after something, a pursuit of the ideal.

When a period of manhood and womanhood is reached, about the age of twenty-four, the mental character continues to increase in stability, and goes on increasing for twenty or twenty-five years. The period of evolution which is past may be thought of rather contemptuously. There may be a feeling of disgust at the thought of its vagaries, and there is buckling to the duties of life in real sober earnest. The climacteric period is the next stage, and it appears earlier in the female sex than in the male. It marks the climax of life, a period of critical omen, for sooner or later the downward path in the journey is reached. This period may be considerably delayed as regards mental dissolution; but there is no doubt that, physically, men and women are then past their best. The enthusiasm and hope of youth are diminished. The pleasures of imagination have not the fascination of earlier years. There is less scheming and planning, less ambition and hopefulness, less staying power, a tendency to mental weariness and to lack of sympathy with new ideas. The memory is less receptive and less retentive; the intellectual powers take a slower grasp of new problems, and there is a greater tendency to morbid reflection, to the indulgence of 'might have beens.' Last of all comes old age—the period of second childhood—with faculties dulled, memory failing, the interests of life narrowed, the emotions again dominant, and self-control weakened until there is merely a reflex of childhood itself.

It must be clearly understood that, while each individual character is moulded in passing through the epochs of evolution and dissolution, the individual is in some cases more plastic than in others, and the law of individuality expresses itself in manifold exceptions. No two boys start mental life and develop morally and educationally on exactly the same lines at precisely the same pace. They are inherently different at the outset, and they are potentially different as to the future. In one boy you will find shyness all through childhood, and in another you will find a boldness, a frankness, and a manner always at ease with strangers

at the age of five, which may entirely disappear at the age of seven. The ailments of childhood also affect the development of mental character.

A child long confined to the sick-room may develop a wisdom and quickness of intelligence, the appearance of which would be considerably delayed in a physically healthy boy. Then, in the progress of education you also discover striking differences. One boy's mind is from the first a good educational mill: he is not a precocious child by any means, but one of an adaptive mental habit, who at the age of eight can write a respectable letter to his parents, but who at the age of twelve has reduced his educational pace considerably. Another boy with a quick enough intelligence, it may be, but difficult to train and discipline, with a strong imitative faculty, an inveterate restlessness, a boy who is everything by turns, and nothing long, when sent to school is kept in late to learn his lessons, plays truant, and is always making excuses to evade school work. Such a boy is educationally in a dormant condition. At twelve or fourteen years of age he begins to settle down; the habit of application is difficult, but as it grows his mind expands, his inquisitive and acquisitive faculties enlarge, and by the age of sixteen he is alongside his companion, and thereafter probably forges ahead of him. Such examples must be well known to us, but it is necessary to crystallize them here, and likewise to crystallize the truth that the law of individuality is not superseded by the laws of evolution and dissolution, and, though in one sense subordinate, it is in another sense determinative. The more you study the human mind and human character, the more you will perceive the truth of what I have stated, that *each man's mind is a law unto itself*, and that each case must be studied on its own merits.

The law of environment recognises the dependence of mind on sensation for its vitality and continued healthy existence. A mind hermetically sealed from the outside world can live only on memories, but ceases to have any existence so far as relation with the outside world is concerned. The law of environment recognises two kinds of sense stimuli, (*a*) organic, (*b*) non-organic, the one occurring

within the body, and the other occurring outside the body. Of organic sensations we have examples in sexual excitement, uterine sensations, digestive sensations, hepatic, renal, cardiac, and respiratory. These are at a minimum under normal conditions. The sensations of digestion we are scarcely conscious of, and yet they produce certain recognised emotional states. Cardiac sensations are not noticeable under normal conditions, and the uterine and sexual are more or less in abeyance except at periodical times; but we shall have occasion to notice the importance of these organic sensations in relation to disturbance of mental function. The non-organic stimuli constitute the chief environment of mind. What, then, does the environment consist of? It consists of all Nature, animate and inanimate, and of all the products of intelligence. Everything speaks to the mind, for there is a form of expression in all things. Such inanimate objects as a bare, silent hillside, a gurgling brook, a great cairn of stones, or a blasted tree, speak to the mind with a meaning of their own. The surging and toiling masses of a city population, the busy hives of industry, the dens of the wretched poor and criminal classes, convey impressions, and awaken thoughts, and give the mind abundant food for reflection. There is nothing so small or so great that the mind cannot be exercised upon it, and quietly, and unconsciously it may be, impressions are absorbed, and lie dormant for years. The environment has here been spoken of in its widest sense, but we must think of environment as regards time and place. The time changes, and with it the place changes. The locality in which you were born or brought up may be outwardly much the same to-day that it was twenty years ago, but if it is, the time, at least, has changed, and with it the social character of the environment. Education is different, the books are different; new inventions have come within the scope of observation; the habits of the people have changed, and their life has become transformed from that of their ancestors. The mind is fed on the conceptions of to-day, and takes its colour from the time in which it lives.

The environment may differ materially as to place. One

boy is brought up among his native hills, surrounded more by the influences of solitude, the hills and the valleys and the animal creation, and living in the utmost rural simplicity. Another first sees daylight in the midst of a crowded city surrounded by the artificial productions of intelligence, and masses of men, women, and children, his playground the streets, and his views of life those of squalor and wretchedness, of misery and crime, sorrow and pain. He ripens on a different pabulum, and is precocious far in advance of the years of the simple rustic. Lastly, the environment is largely human, and the action of mind on mind does more to shape the human character than anything else. The teaching and influence of the parents, brothers and sisters, playfellows, the schoolmaster, of men and of books, are constant factors from the cradle to the grave, and exercise a powerful influence on the moulding and development of the mental character. In considering mental character, then, the influence of the environment must be carefully inquired into. The more we study it, the better are we able to account for differences of character and habit, and the better are we able to understand the mental history of the individual, the breadth or narrowness of his mental range, the nature of his feeling and sympathies, of his religious beliefs and moral aspirations.

With some knowledge of mental constitution and character, we can now consider the question of mental health. We recognise that every man is his own type of individuality, and that symptoms perfectly consistent and normal in one individual may be inconsistent and abnormal in another. A study of evolution and dissolution enables us to account rationally for changes of character at different periods of life, and the law of environment enables us to account for diversities of character developed under different external conditions. What we would regard as mental health in a child may be insanity in an adult, and the exhibition of amorous passion which in a young man may be normal will be inconsistent, if not abnormal, in an old man. The first essential in the possession of mental health is said by some to be a sense of well-being, that sense which, as a faculty of

our emotional nature, is quickened in response to the general feeling of the mind. I have said that we are sometimes conscious of distinct mental pleasure, and sometimes of distinct mental pain. When elated with victory or success, we have mental pleasure; when cast down with grief and disappointment, we have mental pain. Our consciousness is entirely warped by either of these feelings at such times, and they actually dominate our mental actions; but between these two extremes of the pendulum there are grades of pain or pleasure down to a mid-way centre of an entirely neutral character, and this point at which the pendulum rests is really the average state of normal feeling. We do not stop to question every hour of our lives, whether our mental consciousness is happy or unhappy. There is a continuous emotional response to every phase of mental action and mental life, whether in the study or in the whirl of business, in society or alone with Nature; but whatever the emotional state, it is transient, and one state succeeds another so quickly that the composite result is all we need to care about. But when one string of emotion vibrates too long and intensely, we recognise a distinct sense of well-being or ill-being, and it is in such cases that we require to consider the question of mental health. The sense of well-being is wanting in the morning after a debauch, during a bilious attack, when suffering pain, and usually when affected with grave bodily disease; and when these disorders or diseases recur frequently, or last for a long time, there is danger of the mental health being seriously affected as well as the bodily health. On the other hand, while joy does not kill, it may in excessive amount have a disturbing effect on mental function, and give rise to extravagances of feeling and action that call for the exercise of self-control. Extremes of feeling are certainly to be discouraged, the one as much as the other, for there is in mental as well as in bodily function a law of action and reaction. You will sometimes find, with ladies particularly, a condition described as *high-strung*, a state in which the feelings are extremely sensitive and responsive. These ladies are not necessarily of the hysterical type, though closely related to it; but they quickly feel and

magnify the impression of pleasurable experience, transform it into extravagance of thought and action, and pay for it in a few hours with an attack of headache and depression. Such ladies should have been taught to exercise self-control, not in order to stifle their feelings, but to moderate them.

You will find in practice that mental depression, this loss of the sense of well-being, is a frequent condition complicating bodily disease, and that there is an effect of mind on body as well as body on mind that should be intelligently appreciated, and this knowledge made use of in the treatment of disease. A good deal of the mental depression you meet with in general practice is the reaction of excitement, social, political, business, or otherwise, and all the more marked and more liable to recur when a man has no hobbies, or cannot change his attention readily from one subject to another. It is a condition, therefore, that you require to look-out for, and while a man may put it down to his liver, to want of exercise, to too much smoking or convivial nights, you should analyze the man's manner of life, in business and out of business, at home and in society, and see whether the mainspring is not mental or nervous, and the other conditions secondary.

An important factor in determining mental health is the *will and impulses*. I shall frequently use the familiar expression *self-control* to indicate the action of the will upon the impulses, and in the regulation of mental action. Self-control is a fundamental necessity of healthy mind. If you think for a moment of all the funny and extravagant ideas that crop up in one's mind, of the absurd speeches that come, as we say, to the tip of the tongue, you will understand the value of self-control. Without the will to regulate and inhibit such impulses and extravagant thoughts, the world might go mad to-morrow. You have heard of the thought or impulse that seizes some persons when making the ascent of a monument to throw themselves down, or when on board ship to cast themselves into the sea; but these are really a mere fraction of the insane thoughts and impulses that pass through men's minds. If men and women were to lay bare their unbidden thoughts without reserve,

the wickedness, immorality, and insanity of the world would be alarming. The exercise of the will over the thoughts and impulses is, therefore, a most important function, and rational self-control an absolute necessity of mental health. I have said *rational self-control*, for I would like you to understand that the exercise of inhibition may go too far, and natural instincts and feelings, as in the case of John Stuart Mill, may be stifled from false conceptions of mental training. You will also find departure from mental health due to excess of self-will, where the pride of egoism carries a man out of the sphere of sanity altogether. I have known a medical student who had the sense of well-being so pronounced and the pride of egoism so intolerable, and who possessed a self-will so strong, as to carry him before he was long in practice into a state of incurable insanity. It is difficult sometimes to say how far self-will is another name for strong undermining impulse, and how far it is the result of misdirected intelligence. Again, a man, while inhibiting one impulse, may give free vent to another and a wrong one, and thus two impulses may contend for supremacy with unequal force and unfortunate results. These considerations are convincing proof that the will has a difficult part to play in the sphere of human action, and that it should be trained early to hold the balance true between the impulses.

The moral nature is at times more healthy than at others. There can be no doubt that, under depressing conditions, and when the mind is overwrought, the moral sense is disturbed. It has been said that conscience is the index of the state of a man's digestion. The intellect shows departures from the normal like the other faculties. It can be exhausted by overwork, and when so exhausted has a disturbing influence on the emotions, and a paralyzing influence on the will and the moral nature; and, though we are apt to see departures from mental health first in the emotions, there can be no doubt that the starting-point is frequently an overwrought intellect, coupled sometimes with excessive worry and anxiety.

These being the general outlines of departures from mental health, we must now formulate our ideas on the subject of

hygiene. In the first place, the work of the mind should be carefully balanced; there should be no undue preponderance of functional activity in one direction more than another. The bow should not be bent till elasticity is lost, for a mind that cannot easily recover itself after an excessive strain presents the symptoms of *neurasthenia* (nervous weakness). As I have already pointed out, the mind should be capable of being diverted from one subject to another. It should take in a wide range of interests and sympathies, and the man who can relieve a strain in one direction by exercising his mind in another, and can in turn change it for another pursuit, is more likely to maintain his mental elasticity than the man engrossed with one care and one pursuit only. It has been said that it is not work that kills, but worry; and I would impress on you the baneful effects of incessant anxiety, for it is because of the worry and care associated with it that the integrity of mental health suffers more than from mere intellectual work itself. You must therefore understand that the intellect must occupy itself with more subjects than one; that, next to sleep, the best rest is change of work, and that change of work in its turn relieves the strain of worry and anxiety, and mitigates in this way a serious danger to mental health. There is no greater proof of the mental strain and worry of present-day life than the simple fact that a holiday has now become a recognised necessity for all classes, and that for men engrossed with mental work a spring holiday is required to supplement the autumn holiday. Not only so, but outdoor recreations are becoming the rule in the summer months, and social festivities in the winter. Yet it must be admitted that a rational system of holidays is not yet understood by the majority of the people, and the more medical men study the question, the better will they be able to influence the mental health of their patients. Recognising clearly what the jaded brain requires, the medical man will be able to map out the kind of holiday that will best suit the case. An aimless holiday devoted to killing time is just a new kind of worry. A run to and from the coast daily increases the nervous fatigue, and usually leaves the patient worse than it found him. A long sea-holiday is

often exceedingly beneficial for some types of nervous breakdown. It is scarcely possible to overdo mental exertion on board ship. It requires an effort to read even a fascinating novel, and there should be no difficulty in the patient allowing himself to sink into a delicious state of mental torpor almost as refreshing as sleep. For those who cannot take a sea-holiday there are many hobbies which can give abundant diversion and mental rest. There are the delights of cycling, angling, botanizing, geologizing, photography, bowling, golfing, tennis, and so forth, so that a rational holiday can very easily be arranged. Speaking of social attractions, it is well to bear in mind that some are hurtful, and really do more harm than good. Excitement must be discouraged. What is wanted is mental change without exhausting excitement. A quiet evening from home is to the average man or woman much more helpful than the excitement of the concert-room or ballroom, and you must carefully guard against allowing patients of exquisite musical sensibility to have that free indulgence of their favourite passion which is apt to produce intense reaction and alarming mental depression. A healthy mind requires a healthy body, and the laws which regulate the health of the body must be strictly attended to. For this reason each individual case must be studied in relation to physical conditions, and particularly so in relation to their effect on the mind. The interdependence of the two cannot be too strongly emphasized, for, strange as it may seem to you, they are often regarded in practice as separate entities, and I have known a young medical man treat a passing mental disturbance by severe blistering from the nape of the neck to the sacrum, when all that was required was active purgation for a chronic state of constipation.

CHAPTER III.

SLEEP.—INSOMNIA AND ITS TREATMENT.

Sleep: its nature and the conditions necessary for it—The cause of sleep: various theories—Insomnia: varieties of it; incidental and morbid varieties—Causes are peripheral or central—Sometimes leads to insanity—Treatment: (*a*) general, (*b*) special—The former includes daily discipline, and attention to diet and drink—The latter includes rules of the bedroom, hydropathy and drugs.

THE prime restorer of exhausted nature is sleep. The demands of sleep vary with the individual, and are determined by age, individuality, manner of life, and occupation. While sleep is essential for the relief of bodily fatigue and the efficiency of bodily repair, it is not so entirely, for horizontal rest can be obtained without sleep, and pauses of this kind, with the eyes closed, may enable man to do without it for a long time, provided there is no cerebral demand. This demand should be attended to till mental rest is obtained; for while bodily repair can be effected during mental exertion, cerebral repair can only be effected to a very limited extent, and then is chiefly confined to the lower and reflex centres. A certain amount of mental rest can be obtained by lying down and closing the eyes and ears against external stimuli. A weary and jaded brain may rise refreshed from a pause of this kind, and do a good night's work; but it is a practice that is merely useful to tide over a special crisis, and can never take the place of natural sleep.

Ideal sleep is absolutely unconscious. Experiments on record appear to prove that sleep can never be absolutely free from dreams. Sir William Hamilton, Exner, and others arranged experiments on themselves to test the depth of

mental inactivity during sleep, and they invariably found themselves at the moment of waking occupied with the course of a dream (*vide* Lyman, p. 14). These experiments cannot be regarded as conclusive. Just as the actions of a whole life pass in review in a moment, as when drowning, dreams flitting from pole to pole, and from boyhood to manhood, may occur in a very brief space of time, excited it may be by the mere disturbance of being wakened. That memory sleeps soundly is probably true, for, as these observers point out, we rarely remember our dreams. It is well known that dreams mostly occur in the morning hours before waking, and it is doubtless true that sleep is most profound during the first hour, and that the tide of consciousness returns slowly after, so that dreaming is not only probable but physiological before the hour of waking.

Sleep is induced by fatigue, and the sense of fatigue indicates the necessity for repose, and other conditions favourable to sleep. The attitude of the body and its parts, the limp condition of the muscular system, the droop of the head and neck, and the gravitation to a horizontal position, indicate the approach of sleep. The mind becomes sluggish, the senses less acute, and a state midway between sleep and consciousness is reached. The eyes close, and reflex movements are for the moment more easily excited, induced it may be by weight of bedclothes, uncomfortable position, or other external causes, so that the patient, if he is in a more nervous state than usual, or if he is naturally nervous, may be wakened by slight convulsive movements or sounds or visual sensations of his own, that are merely due to the suspension of higher functions, and the loss of inhibition for the time being. Soon the reflexes and sensory excitements cease, the will recedes, and the intellectual faculties make their exit in a whirl of incoherence, until at last sleep is supreme. During sleep the pace of all the functions is reduced—respiration, circulation, etc.

The cause of sleep has been discussed for ages, and many theories have been advanced on the subject. Three of these may here be referred to: *First*, that sleep is due to venous congestion is an opinion founded on the vascular state of the

brain in comatose states, and after the exhibition of opium. These, however, were not cases of natural sleep, and it cannot be demonstrated that sleep is induced by congesting the cerebral circulation. *Second*, the theory of anæmia as a cause of sleep has received more general support, and of late years has been apparently confirmed by experiments. In 1860 Durham demonstrated, by trephining experiments on dogs, that the supply of blood to the brain is diminished during sleep; and Mosso of Turin observed three individuals who had suffered from defect of the cranial wall, so that the cerebrum was exposed, and he was able to note the pulsation of the vessels of the brain. It was observed (*vide* Lyman, p. 26) that every increase of emotional or intellectual activity was attended by an increase in the cerebral circulation, and a coincident reduction in the blood-supply to other parts of the body. The occurrence of sleep was attended by a reduction of the volume and temperature of the brain, and a coincident dilatation of the vessels of the extremities. Moreover, if a ray of light was directed on the eyelids, or if any sense organ was excited without awaking the patient, the respiration and circulation were accelerated, the vessels of the extremities contracted, and blood flowed more freely to the brain. It is worthy of note also that in anæmic subjects there is often a lethargic condition, and sleep is easily induced; and an argument in favour of the theory of anæmia as the cause of sleep may be taken from the fact that a nap after dinner is apparently due to the withdrawal of a large volume of the cerebral circulation. The *third* theory is that anæmia is only the effect of a sleep-producing cause; that a nervous impression is the primary event, and the state of the circulation a consequence. The argument for the third theory is this, that a change takes place in the nerve cells, there is a surcharge of waste matter, and a reduction of energy, so that there is not only suspended function from lack of energy, but also from obstruction with waste matter; there is no call for the *vis a fronte* of the circulation, and hence the anæmia which accompanies sleep. An active tissue calls for active irrigation; hence we have the circulation in the brain vigorous and full in response to mental

action, feeble and depleted as a consequence of mental inaction. Sleep is really induced by fatigue of nerve cells, and the state of the circulation is a consequence of it; but just as the jaded horse may be spurred on, so the jaded cells may be stimulated by persistence of sensory impressions or mental worry and excitement. It is a known fact in physiology that a sensory nerve reduced to a state of anæmia has its excitability intensified for a time, and the same rule applies to nervous and mental actions generally, for only in this way can we explain the intensity of mental excitement which appears in a feeble physical condition in states of anæmia and nervous exhaustion.

The necessary duration of sleep varies with the individual. A child takes more than a man in proportion, conversely, as his higher faculties are not evolved. The fewer ideas he has, and the more elementary his imaginative faculty, the more reflex is his mental character, so that when his senses are satisfied he falls asleep. A man whose work is muscular and not cerebral, whose mental activity is almost nil, who has no mental care and no imagination, goes to sleep readily when he is withdrawn from work, and has satisfied his appetites and other organic cravings. The man who does head work does not sleep so quickly, especially if he is of an anxious, worrying temperament, if his imagination is too lively, or his memory too obtrusive. The possibility of sleep depends also on the bodily health, particularly on the digestive functions, and the effect of meals on the cerebral circulation is too well known to need comment.

Insomnia.

Sleep being a physiological necessity of mental health, we naturally turn our attention to the consideration of *insomnia* or *sleeplessness*, which must exercise a serious effect on the performance of mental functions. Insomnia is a most distressing condition, and has not received much consideration in general practice until quite lately. Its increasing frequency in our experience, and its relation to insanity, are sufficient reason for our carefully considering its causes and treatment.

There was a time when opium was regarded as the all-sufficient remedy. If a glass of whisky-toddy or rum-punch failed, it was drugged with opium; but the indiscriminate use of opium brought its own cure, and a reaction against its use followed, as foolish as reactions are apt to be. That opium destroyed digestion, and caused a craving, was undoubtedly true; but with proper precautions it may still be regarded favourably in certain cases. Insomnia is variable in its symptoms and effects, and its causes are numerous.

One great distinction may here be drawn, *i.e.*, between peripheral causation and cerebral causation. Peripheral causes of wakefulness are light in a bedroom, heat, disagreeable smells, noises, remission of sounds, as from noise to silence, and movement to rest, as in railway travelling, irritating cutaneous diseases, pain, dyspepsia, flatulence, and other visceral disorders. It is quite correct to regard wakefulness or disturbed sleep, induced by these conditions, as physiological, for no healthy brain can be quite indifferent to them. It is only after constant repetition that sleeplessness acquires a habit and becomes morbid.

The important causes of sleeplessness are central, and refer to the action of the brain itself. Heredity undoubtedly operates in some cases more than others, and wakefulness is often a family symptom, which is noticeable in families of nervous and intellectual types. In such cases it is not infrequently associated with peripheral conditions, such as dyspepsia and flatulence, so that, except under the influence of hypnotic treatment, patients of this class, after reaching maturity, may never know what it is to have a sound sleep. Others, again, are sleepless because of mental overstrain, the mental machinery refusing to stop when work is done. Another cause is excitement—political, social, intellectual, and otherwise; indeed, any prolonged and intense play of emotion is sure to be followed by insomnia.

Next, as causes of sleeplessness, come worry and anxiety, remorse and passion. It must also depend a good deal on temperament, and it is well to discriminate those cases likely to suffer in this way, and to advise them accordingly. Of course, the conditions stated imply more or less excite-

ment, and therefore a condition of unrest, if not a positive frenzy of intellectual faculties and emotions. So long as excitement continues, from whatever cause, there can be no sleep. The causes of excitement are so various that I find it necessary to speak in a general way of the subject. Two old friends meet after a long severance, perhaps at the end of a long railway journey. They do not shake hands in the perfunctory way of an everyday greeting; they do not speak to each other in the matter-of-fact tone of a passing salutation. No. There is a distinct rise in the pulse of feeling; the language of emotion speaks in every feature, expression, and gesture; the sense of well-being is exalted, the mind is excited, memory is quickened, reminiscence follows reminiscence in quick succession, and the play of emotion and intellectual life is so vivid and intense that, when they look at the clock, and see how long they have talked into the night, the whole thing seems a dream. Here there is an intensity of consciousness, emotion, and intellectual expression wrought to such a pitch that when they seek repose sleep is impossible. The mind chews its cud of reflection, goes over the evening and the past again and again, rings every possible change on the imaginative and emotional faculties, and speeds from thought to thought, memory to memory, and feeling to feeling, with a whirl of feverish delirium. You will find men who cannot sleep if they have had the least exciting or worrying talk just before bedtime; others who cannot sleep if they read in the evening; and others—and they are many—who cannot sleep if they study late at night. Lastly, physical fatigue may be too acute for sleep to supervene.

Insomnia may be painful and acute, the mind in a feverish delirium, the body in a state of unrest. There is a nervous feeling of lightness in the head, of something wrong, and often a feeling of depression and anxiety. The patient may, and often does, lapse into a state of partial unconsciousness in which he may be said consciously to dream, and in which his mind is the sport of strange fancies, and he has a feeling that he is not the same person as when awake in the daytime. He is uncertain where his mind will lead him, and

feels as if it had passed from his control. It is a state of most distressing delirium, which can often be put a stop to by getting out of bed and reading a book, or in some other way actively diverting the mind. But there is a condition of wakefulness sometimes experienced by the same individual when in more robust health, in which he is placid, patient, expectant, and does not worry for sleep to come. It comes in time, and although he may have passed half the night in a wakeful state, it has been attended with physical rest, mental quiet, and for the remaining half sleep is assured. In some cases there is slowly and surely going on a process of wear and tear in excess of the repair of nervous tissue; the mind is strained, the emotions are accentuated, and there is irritability, impulsiveness, and want of judgment and staying power. Finally, by the operation of secondary causes, insanity may be induced. Many men never reach this extremity. Weakened by a long habit of imperfect sleep, the nervous system reacting on the general system induces susceptibilities to disease, and life may thus be shortened. Others, having acquired this painful habit, arrange their hours and work to suit it, and by careful attention to physiological laws live on doing good work, though in moderate quantity, and, though never robust, attaining a longer age than might be expected. We will find, then, that habitual insomnia does not always lead to insanity; for in practice it will meet us at every turn, and we may be able, by discriminating carefully, to treat many with a remarkable measure of success.

Treatment of Insomnia.

The treatment of insomnia must be considered under two heads: (*a*) General, (*b*) Special. Under *general* I include (1) daily discipline; (2) attention to diet and drinks. Daily discipline implies a good deal. It requires a considerable exercise of self-denial, and it must rigidly determine the habits and manner of life of the patient. Whatever treatment is enjoined under the second head must here be insisted on. Normal sleep comes with clockwork regularity,

but it presupposes a clockwork regularity of daily life, and a subordination of bodily function to physiological conditions —a regular routine of daily life, systematic early rising, regularity of meals, work mapped out so as not unduly to fatigue, so that we spring back from it easily to recreation, and a fair allowance of exercise at times, so as to make the continuity of mental work impossible. Some brain-workers, leaving the study behind, thinking to rest their brains, go into the streets, the woods, or the fields; it is all one which, for objectively they are blind, and the brain works on, thought on thought revolves round the one idea—*i.e.*, the subject which was not left behind in the study. Here there is a want of discipline. The mind has acquired the habit of never giving up a pursuit until it is finished, and while automatically and unconsciously the student walks the streets, the mind is still busy with its own investigations. Recreation of whatever kind must be genuine, not a make-believe recreation. It must leave the brain better than it found it. It must refresh after toil, and therefore it must have a purpose, and draw the mind, so to speak, out of itself, and so relax the strain. Daily discipline must go further. Literature of an exciting kind ought not to be indulged in at all if it cannot be put aside at will, and mental occupation of an absorbing or intense character should cease for some hours before bedtime. Worry and anxiety may be the cause, and in such cases physical occupation is the best preparation for sleep if possible. Self-discipline must also be exercised in the matter of diet and stimulants. What is one man's meat is another man's poison, and we shall see by-and-by that there is a law for one man that does not apply to another. I have spoken of bodily diseases as causes of sleeplessness, and particularly of dyspepsia; and when the subject of diet is discussed, this will be again referred to. What I have to insist on now is, that daily discipline in the matter of diet has to be exercised in such cases.

The general treatment of insomnia therefore implies, as a fundamental necessity, daily discipline and self-denial. In the next place it implies a careful consideration of diet and stimulants. The diet should be regulated as to quality and

quantity, according to the individual case; but the important point to remember is, that the digestive tract is exceedingly sensitive, and when excited by injudicious dieting, by disorder or disease, the influence on the brain is certain, though the patient may not be able to correlate the one with the other. The more perfect the harmony of organic sensation, the more favourable the condition of the brain for repose. As we know, stimulation of any sense organ is apt to waken a patient and indeed to keep him from sleeping at all. But in dyspepsia and flatulence we have sensory disturbances, scarcely noticeable, which are very apt to produce wakefulness. The vermiform movements of the intestines, eructations, flatulent distension, and other conditions, set up sensory disturbances inimical to sleep, so that restlessness, tossing about, without any sense of excitement, merely wakefulness, is the result. For such cases we must pay attention to diet. Hence also the old adage, 'After supper walk a mile.' We have, of course, heard heavy suppers condemned, but 'no supper at all' should be equally condemned. The soothing influence of a glass of milk and a biscuit is remarkable. Many a tossing, restless, feverish state has been dispelled by this simple expedient.

As regards stimulants there is something to say on both sides. They are certainly safer than drugs, but are they really necessary? In some cases they are. In the treatment of senile cases of restlessness and sleeplessness the exhibition of alcohol in moderate doses is decidedly beneficial. The lack of elasticity, of nervous energy, and recuperative power, in the aged, give indications for stimulant treatment, and a tumbler of toddy at bedtime is for many of them a desirable hypnotic. But there are exceptions, and we must distinguish these. Some are rendered excitable and wakeful by a stimulant, and we may find that where it has been a habit of maturer years its good effects in senility are less manifest. While stimulants may be indicated in old age, it is not so clear that they are either indicated or desirable in early or mature manhood. I would not say that a glass of grog, a tumbler of toddy, or a pint of stout, should be pooh-poohed in all cases. Where there is much wear

and tear of nerve tissue, where the mind will not rest for worry and incessant reflection, where to-morrow's work has to be done, and sleep will not come, especially if it is eagerly sought for, a glass of grog, and even a second dose on occasion, may be the best thing possible. But I would give warning against prescribing it as a regular habit, especially where there is a bad hereditary history, and where there is a liking for it. Indeed, where there is a bad hereditary history, everything else should be tried rather than alcohol or hypnotic drugs. In prescribing them, care should be taken to give what suits the digestive system. Many who enjoy a good dinner or supper, and after a reasonable pause might go to bed and sleep well undisturbed by anything they have eaten, may remain awake for hours owing to indiscretion in drinking. Patients subject to acid dyspepsia are of this class, and they pay for such indiscretions as drinking hock, claret, or other acid wines at meals. It is certainly true that alcohol does good in many cases, and I have known some where it has relieved many a mental crisis; but in all such cases the craving was absent, and it was taken purely as a hypnotic. It is certainly to be preferred to the habitual use of drugs, and the dose does not need to be increased in anything like the same ratio.

Coming now to *special* means of treatment for the cure of insomnia, I will speak of them under three heads: (*a*) Rules of the bedroom; (*b*) Hydropathy; (*c*) Drugs.

(*a*) The rules of the bedroom may be summarized thus: (1) A quiet, retired situation; (2) thorough ventilation of the bedroom and the bedding in the daytime: the mattresses, pillows, blankets, and everything about a bed should be freely exposed to the air for a few hours every day; (3) the bed should be well made, no hollows or inequalities of resistance, no crumpling of the sheets, and where possible a wire-wove spring mattress: feather beds are objectionable; (4) there should be no light, and glaring fires should be avoided. If light is necessary, let only night-lights be used. The temperature of the room should be moderate, and for otherwise healthy persons a fire is unnecessary.

(*b*) Hydropathy is now a favourite remedy for many ail-

ments fancied and real; but it may, and often will, do harm in cases of insomnia treated by injudicious selection of baths, in ignorance of their physiological effects. The favourite bath for sleeplessness is the warm bath, but it is frequently of no use. That a warm bath has a soothing effect is partly true; but that it is usually soporific is a mistake, though I have found it successful in some nervous cases. It may be soporific to those of more stable temperament, but rarely so to a man or woman of nervous temperament, and these are the patients most likely to suffer from insomnia. It used to be thought the best thing possible to give a warm bath to a nervous, excited, sleepless patient, but I have seen this treatment produce an entirely opposite effect. A man once so treated passed into a state of frenzy and suicidal impulse from which he never completely recovered. Neither is a warm sitz bath anything more than a soothing application for the time being. They draw the blood from the head, we are told. Quite so; but they flush it back in fuller volume when the period of reaction sets in. The use of the cold bath is a more physiological treatment of insomnia; but many nervous patients feel the shock too much: their circulation does not react vigorously, they remain cold and blue after it, and vigorous rubbing fails to produce a sufficient glow of warmth and redness. To obviate this we may take the chill off or prescribe a cold sitz bath, or make the patient sit in a chair with his knees and feet exposed in a large foot-bath. Then pour slowly pailful after pailful of ice-cold water over the knees and feet, and after one minute dry and rub thoroughly. Get the patient back to bed, and in a few minutes the feet begin to warm, and by-and-by to get decidedly hot, while the head gets cool. The effect is precisely the opposite of a warm bath, and is a most excellent expedient in some cases. Cold applications to the head—a towel wrung out of cold water, frequently repeated, is often very soothing to many nervous patients, and it is sometimes usefully combined with a warm sitz bath. Mustard hip-baths are also useful in cases of amenorrhœa or dysmenorrhœa with excitement and wakefulness; but they must not be prolonged, or the irritation produced becomes

excessive, and aggravates the state of the patient. It is well to prescribe the use of a bath thermometer, and to give precise directions as to the temperature required. Individual cases require individual treatment. It will be found that in some a tepid bath suits best, in others a warm bath (95°), and in others a hot bath (110°); but the question is one for the medical attendant, who will be guided by the nervous constitution of the patient, and the state of the heart and vascular system. The time spent in the bath must also be determined, and in critical cases it is well for the medical attendant to be at hand for carefully observing the pulse and general condition of the patient.

(*c*) The treatment by drugs resolves itself into a question of direct and indirect treatment. Indirect treatment is that prescribed because of secondary effects, *e.g.*, for bodily conditions inimical to sleep, such as dyspepsia, neuralgia, rheumatism, etc.

Direct treatment is prescribed for direct effects. 1. *Opium* is a certain hypnotic; but it is one not to be trifled with, and medical men incur responsibility in prescribing it, though in a lesser degree this may also be said of prescribing any hypnotic. It disturbs secretory and digestive functions where pushed indiscriminately. Given in moderate doses, it quickens mental activity, unless the patient discourages thought and allows himself to fall into a passive state which paves the way for its soporific action. Where sleeplessness is due to pain or peripheral irritation, as, for example, in puerperal conditions, it is most useful, and may be prescribed in the form of Tr. Opii or Morphia Suppositories, the dose being determined by the intensity of the symptoms. It is well not to give a full dose to begin with, but rather to repeat cautiously until the desired effect is obtained, and it is well also not to err on the side of overcaution, for then the last state of the patient is worse than the first.

2. *Chloral* is also a certain hypnotic, but here also great care requires to be exercised, especially in weakness of the heart, respiratory disease, and disease of the bloodvessels. It may produce headache, drowsiness, sickness, loss of

appetite, and disorder of the liver, but it is safer than opium. It is best to give it with bromide of potassium.

3. *Bromide of potassium* is a very safe hypnotic; it rarely disturbs the digestive and hepatic functions, but given alone it is physically depressing if continued for a long time, as the dose requires to be increased. When sleeplessness is acute, and accompanied by excitement, a combination of bromide of potassium with chloral—25 grains of the former, and 15 to 20 grains of the latter—is a much more effective hypnotic.

4. *Paraldehyde.*—This, but for its offensive taste and smell, would be a favourite hypnotic, and it is especially indicated where cardiac or general weakness contra-indicate the exhibition of depressing remedies. It is best administered in drachm doses with Tr. Aurantii, which helps to mask its most unpleasant taste and smell.

5. *Sulphonal.*—This drug has been much in favour for a time, but after the novelty of its use wore off, it fell rather into disrepute. The chief reasons assigned for this were its insolubility, its irritant effects on the gastro-intestinal tract, and the occasional occurrence of hæmato-porphyrinuria after its use. I have still faith in sulphonal, and if caution is manifested in its use, it will be found both safe and reliable. As it does not dissolve well, its action is necessarily slow, and especially so in gastric disorders. It is best given after mixing with boiling milk, which is afterwards allowed to cool a little, or it may be given in alcohol. The dose is 15 to 40 grains, but it may be administered in two moderate doses, with an interval of three hours between. The urine should be examined frequently, and the faintest tinge of red, or a darkening of its colour, should be taken as a warning to stop the medicine. Its use is contra-indicated in adrenal or renal disease. In this connection reference may be made to the following observations of B. J. Stokvis, M.D.:

'In respect to sulphonal as a cause of hæmato-porphyrinuria, the occurrence of large quantities of hæmato-porphyrin in the urine, and of hæmorrhage in the alimentary canal, can be wholly checked in animals (rabbits) by involving the irritant substance in demulcent liquids, as milk, solution of starch, etc.'—*Journal of Pathology and Bacteriology*, July, 1896.

6. *Hypodermic Treatment.*—Morphia, hyoscyamine, hyoscine, have been tried. In ordinary practice, as in relieving pain in order to procure sleep, a hypodermic injection of morphia is an excellent expedient, but the injection must be given by the doctor himself. In the treatment of acute mental excitement, the hydrobromate of hyoscine ($\frac{1}{150}$ to $\frac{1}{60}$ of a grain) is prompt and reliable. If there is cardiac or vascular disease, it requires to be given with caution, but I have had no bad results in such cases. It is well to begin with smaller doses at first, as the susceptibility of patients varies.

Indirect Treatment.

7. *Liquor Ammon. Acetatis.*—In cases of mild sleeplessness, where excitement is not distressing, and a placid state of mind is the rule, this medicine, by increasing the vascularity of the skin, relieves the brain, and promotes a natural, refreshing sleep. It is therefore not narcotic, and, being a febrifuge frequently prescribed for children, it may be regarded as the safest of all hypnotics. In private practice I have found it very useful in doses of half an ounce or more, repeated if necessary.

It is not necessary to dwell at greater length on the subject of indirect treatment. Where there is bodily disease or disorder, a cause of insomnia frequently exists until sensory relief is obtained, and distressing symptoms must in all such cases be relieved or minimized to allow exhausted nature a chance of repose.

CHAPTER IV.

THE EXAMINATION OF MENTAL CASES.—DIAGNOSTIC CHARACTERS OF INSANITY.

Method of mental examination—Is there a standard of sanity?—Generic symptoms of insanity which may be regarded as diagnostic characters—Illusions, hallucinations, delusions, and their varieties—Distinction of these three mental states—The states of depression, exaltation, and enfeeblement—Disordered emotions and instincts—Excitement, incoherence, suicidal and homicidal impulses—Obsession, Aboulia, Verbigeration.

Mens sana in corpore sano is the ideal of health, but in actual practice we sometimes neglect to couple these two ideas, being carried away by the urgency of the mental symptoms, and disregarding the physical state altogether. The clinical conception must take in the whole man mentally and physically. Is there a mental standard of sanity? This is a question which arrests a medical man when he is called on for the first time to testify as to the mental capacity of anyone. A brief consideration of what has been already said in preceding chapters should satisfy us that beyond general data there is no standard. The individual in question must possess mental faculties, but his character may differ from another's as widely as possible, and yet not transgress the bounds of sanity. Every sane man is his own standard.

A systematic examination of a man's mental state should be undertaken in the following order:

First: Inquire as to sensation, perception, language, memory, emotions, will and impulses, moral nature, and so forth (*vide* Chapter I.). There may be congenital deficiency, which if extreme marks him an idiot or an imbecile. There may be deficiency as the result of disease or accident, but it

may not be enough to signify insanity. If it does, we call it *acquired insanity*.

Second : Inquire next whether his mental character is altered beyond its legitimate range (*vide* Chapter II.), and remembering that character is differently manifested at different epochs of life, and in accordance with certain laws, we must determine whether the character in question is consistent with such laws of variation.

In coming to a decision, remember that we are not guided thereto by any definition of insanity. There is no accepted definition of insanity in medical jurisprudence or elsewhere. No satisfactory definition has yet been conceived, and in actual practice medical men get along very well without it.

In medical practice many patients are treated for mental symptoms, and for obvious reasons no name is attached to the case. If it can be called neurasthenia (nervous exhaustion) or hysteria, the patients' friends are grateful, and the medical man is only too glad to meet their wishes if he can. When active measures have to be taken, or when the case has to be regarded in a medico-legal aspect, there is a new view of the matter altogether. The course is clear : technical insanity must be recognised.

Insanity is therefore a term of considerable elasticity. It has many symptoms, and some so generic that they may be regarded as diagnostic characters. These, as a fitting introduction to the systematic study of insanity, may now be appropriately considered here.

The inflexions of a language—the genders, cases, moods, and tenses—are not more numerous and varied than the symptoms of mental disease. They cannot all be put on paper, nor is it necessary to do more than arrange them under their natural orders. Bearing in mind what are the foundations of a mental constitution, it is interesting to observe that sensation is often at fault in mental disease. That many errors of sensation are common in everyday life, and by no means related to mental disease, is perfectly true ; but on the threshold of the mental activities, where sensation communicates with mind, errors of graver import are also common,

though they do not in many cases betoken insanity. Two grave errors referred to sensation stand out conspicuous, viz., illusion and hallucination.

Illusion means a false perception by any of the senses of an object or stimulus. The word stimulus is here coupled with object, so as to make the definition complete; for it seems out of place to talk of sound waves and the molecular irritants of the end organs of taste and smell as being objects in the sense that an object in the field of vision is so regarded. The point of importance is that in the case of illusion an object, or call it a stimulus if you please, impinges by rays, waves, or molecular apposition on the end organ of vision, hearing, or other sense, and there is an error in the sense perception of its true character. In the case of a hallucination there is no peripheral stimulus; the error of sense perception is in the function of the sensory tract, or purely mental.

Many illustrations of illusions may be cited from general experience, as they are really common in the life of the sane. Illusions are excited by the use of intoxicants, such as alcohol, cannabis indica, and hallucinations are still more likely to arise under the influence of such agents. The examples of illusions might be quoted profusely; but it is enough to say that objects may appear larger than their natural size, or the men and women around may look like midgets; in defective light ghostly apparitions, or grotesque exaggerations of size and shape, may appear; but an appeal to reason is enough to dispel the illusion. An illusion is regarded as insane when an appeal to reason, aided perhaps by the remaining senses, does not dispel the illusion; but if this strictly applied in practice, our ancestors who believed in ghosts must have been insane. Here, as in every law of life, we find rules with exceptions. An example of an insane illusion is where a woman calls a cat a baby, or says that the pillow is her child.

Optical effects are often very puzzling, and make the observer doubt his own senses until the cause is explained. The same holds true of strange sounds, especially in the night-time, when one is awake and nervous, and the sense

of hearing is on the alert. It is probably by gradations from the real to the unreal that the hallucinations of subacute alcoholic insanity develop themselves.

Hallucination is a false sense perception without a stimulus applied to the end organ of any of the senses. When a man says that he sees a woman galloping on horseback over the sea, or that by placing his ear against a wall he hears the voice of his mother, who has been dead for thirty years, we say that he has in the first instance a hallucination of sight, and in the second a hallucination of hearing. It is sometimes difficult to distinguish between illusion and hallucination, for there may be a doubt whether or not the end organ of any sense is being stimulated. Hallucinations of hearing have been noticed to be very active in an assembly where there is a subdued hum of voices, and again they are noticed, to use a familiar phrase, 'in the stillness of the night,' or 'where you could hear a pin fall.' It may be that the absolute silence, by withholding sense stimuli, may accentuate the morbid stimulation within the brain of one individual, and that the subdued hum may have a positive effect on cases of the same or of another kind altogether.

You will find in practice that there are doubtful cases, and you will be at a loss to distinguish between illusion and hallucination. In any doubtful instance, if there is evidence of insanity, and the insane idea is not of visceral or hypochondriacal character, you have probably a hallucination, or perhaps a delusion, for these symptoms are much more common among the insane than illusions. Hallucinations may affect any of the senses; but whether they are due to mere errors of sense perception, or have a mental explanation, is still a matter of conjecture. The following are examples:

(*a*) *Hearing.* (1) Hears her children calling to her from under the floor; (2) hears voices from the ceiling calling her names; (3) hears voices of her enemies in the right side of her head, and strikes that side with great fury. Says the left side of her head is where the society women are, and there her friends reside; they seldom speak to or annoy her.

(*b*) *Sight.* (1) Sees her children in the fields, and points

to men stabbing them with knives; (2) sees visions and witches burning.

(*c*) *Taste or Smell.* Example: says her food smells of sulphur, and has a very offensive taste. There is difficulty here in distinguishing between illusion and hallucination.

It is important to discriminate between hallucination and delusion, or, it may be, what is merely a figure of speech. The mere fact that a man says that he hears God's voice in a storm is not necessarily evidence of a hallucination, for many perfervid religious people use such exalted expressions to signify their nearness in sentiment and imagination with the Almighty.

Hallucinations are not always of equal intensity, nor, as in the case of hearing, for example, are they always bilateral. I remember one case of puerperal delirium in which the patient heard at one moment the sounds of paddle-wheels in one ear (her husband was captain of a paddle-steamer), and anon the sound of bagpipe music in the other (she was of Celtic origin). Though perhaps less common among the sane than illusions, they are by no means uncommon, and when the mind is overwrought, and the senses hypersensitive, they are particularly noticeable when in bed, and often just when dropping off to sleep (hypnagogic). Dr. Ireland, in his most interesting book, 'The Blot on the Brain,' gives several instances of sane hallucinations. He quotes from the *British Medical Journal* of March 10, 1883, the case of an elderly lady in the full possession of her mental faculties who had cataract forming in both eyes, and who saw nearly every day for some time a church with numbers of people entering it, and carriages driving up; or an alternative scene of a market-place full of life, opposite her windows. She was quite aware that there was nothing of the kind in reality, and when she shut her eyes the scene vanished. Some hallucinations of sight appear only when the eyes are shut, while others are produced only in the dark. Hallucinations may affect any of the senses; those of sight and hearing are most common.

Delusions.—An insane delusion may be defined as a false belief, the result of diseased mental action. There are delu-

sions familiar to us every day, delusions to which we are all subject, false beliefs, mistaken judgments, which cannot be described as insane. We would never think of ascribing insanity to the victims of popular delusions and superstitions, which are largely dependent on ignorance; but an insane delusion is a false belief *founded on diseased mental action*, and of such the name is legion. Thus, when a man believes himself to be a king, or that he is a teapot, or that he is made of glass, or that he is worth millions of money, when in point of fact he is not worth a sixpence, the insanity of his delusion is so self-evident that for him to argue the matter is obviously absurd. Delusions have been differently classed according to their type, or the particular mental faculty more prominently involved.

Delusions, like hallucinations, may be more apparent than real. They may be feigned; they may be merely the outcome of a desire of vainglory, or entirely due to suggestion. One old lady, a chronic case of puerperal insanity, is utterly inconsistent in her statements day after day; the only persistent delusions are certain delusions of identity and persecution and her being the mother of God. She will tell you in the morning that she was in heaven last night, that she was out fishing at the same time with Jesus Christ, and that in her bed last night she was assaulted by a man named Tait, who had poisoned her before morning. Here there are only two fixed ideas, the relationship of Jesus Christ and the wickedness of Tait; but she paints fresh pictures every morning, and contradicts her statements of the previous day, all, however, having for their central figures Jesus Christ, her son, and Tait the persecutor. The fact is that she colours her delusions and romances wildly and extravagantly to satisfy her insane egotism and vanity.

Apparent delusions, that are apt to be taken seriously, and which ought not to be regarded so, are many of the so-called exalted delusions of the general paralytic. To understand his delusions, real and unreal, it must be remembered that the mainspring of his extravagances is his state of feeling. It is exalted; he feels extravagantly great and strong; his personal equation is immense, and this state of feeling excites

ideas of greatness, strength, and unlimited resource. Undoubtedly, when these ideas are entertained without restraint, he gives them speech, and proclaims himself a mighty monarch, a millionaire, and so forth. With the ebb and flow of feeling these great ideas recede and return again, but there are large ideas which may not occur to him, and which he will adopt as true on your suggestion. Ask him if he can run a locomotive at 150 miles an hour: his sense of power will not allow him to say no, but until you suggested the idea it was never there, and you can thus manufacture unlimited so-called delusions by mere suggestion if his sense of power or well-being happens to be exaggerated at the moment. That many so-called delusions are fictitious is beyond a doubt, and the same can be said of hallucinations.

In order to focus the distinction between illusion, hallucination, and delusion, let me state the following case: An old woman says that two dolls are her children, and that they asked her to give them food. Suppose the dolls to be mechanical dolls, that were made to emit a sound, we have one of the conditions of illusion—*an external stimulus;* and if she, by a false sense perception, transmuted this sound into words, we have the other condition—*a false sense perception*, and therefore an illusion.

When a real baby cries, and its mother suckles it in response to the cry, she understands that it wants food, but she does not say that the child asked in words for food. The old woman may only be insane to the extent that she believes the dolls to be real children, the mechanical cry a real cry; and admitting so much, it may be only an inference that the children want food. We see, therefore, a difficulty in discriminating the true from the false, and we shall now see how an apparent illusion may be the result of hallucinations.

To say that the dolls are her children is possibly an illusion, for there is here an object, and possibly a false perception; but we must make perfectly sure, for possibility does not make it a certainty. The solution came a few days later, when the old woman expressed herself somewhat differently, thus: 'She said she saw the spirit of her aunt

(hallucination of sight), which told her that the dolls are her two children (hallucination of hearing).' The first half of the first statement therefore does not reveal illusion, but is the result of hallucination.

Examine now this further statement. The old woman, having mislaid her children (dolls), declares that they have been stolen, for she saw a nurse carrying a bundle (a parcel of clothing) away. She regards the nurse as a woman who has designs on her life. There is no question here of an error of sensation. She has the delusion that they are stolen, and also the delusion that the nurse has designs on her life.

Sensations (cephalic or otherwise)—obscure, unpleasant sensations—are probably the exciting cause of many delusions, and the difficulty of distinguishing between delusion, hallucination, and illusion in such cases is often considerable.

Delusions are frequently started from the emotional centre of the mind, and it is safe to say of most delusions gradually evolved—not those suddenly sprung on the mind, as in acute cases of insanity—that their origin is traceable either to doubt, fear, suspicion, or a feeling of well-being. This is true also of many delusions of the acute mental states, but these are often the result of an insane association of ideas immediately suggested at the moment. To trace the origin of delusions to their source, sane or insane, is a very interesting, though sometimes a very difficult, study, but it is beyond our present purpose to consider this further. The following case may be quoted to illustrate what might or might not be a delusion:

James R. is very deaf in the right ear. He has been treated with intra-aural injections, viâ the Eustachian tube, by a doctor in a general hospital. In after-years he described it thus: 'They pumped medicine up into my brain, and it came out by my mouth.' This man is illiterate, and his statement by itself is no evidence of insanity, but of ignorance. Observe, however, that he made the statement with an angry look on his face, an expression of suspicion and distrust. Then delusion is suspected, and when we inquire further, and find that he believes he has enemies who plot

against his life, though he can give no sane proof of this, the first statement becomes evidently a delusion.

We may now profitably consider different kinds of delusions.

(*a*) *Depressing delusions* are frequently of a religious character, as when a man declares that his soul is lost because he has committed the unpardonable sin. It may be argued by some that no one can prove otherwise in this case, and that it may not be a delusion. When he states that he is to be offered up a sacrifice for the sins of his family, or that his being put into the asylum is a judgment from God for going to sleep in church, we have evidence of depressing delusions. There are many depressing delusions of a non-religious type; for example, when a man says he is to be put in prison for debt, when a woman says her children have been kidnapped.

(*b*) *Hypochondriacal delusions* might be written down as an offshoot of the class of depressing delusions, but so also might several other forms. Most delusions may be described as having particular characters (example: hypochondriacal, grandiose), and having particular effects (example: depressing, exalting). Hypochondriacal delusions are of necessity a result of morbid self-interest and introspection. The hypochondriac is continually taking stock of his feelings and sensations. He has usually some favourite organ or system which claims his undivided attention. It may be his liver, but more frequently it is his bowels. Sometimes it is his heart; more frequently it is his head and its multitude of strange sensations. Whatever it is, always remember that there may be a substratum of truth in his statements, and do not treat such cases too cavalierly. Because a man mopes and broods over the supposed loss of his stomach, the gas in his head, or the closure in his throat, you must not assume that this is a mere abstract imagination. It may be founded on fact, and for the sake of the patient and your own peace of mind after, it is very desirable that you should make a careful clinical examination of the region referred to.

(*c*) *Exalted delusions*, such as when a man says that he can build a man-of-war in three days, that he is Jesus Christ,

that he has invented a machine to destroy the world, that he is King of the Cannibal Islands, or that he is Jupiter. Under this head may be mentioned delusions denoting pride and grandeur.

(*d*) *Delusions of suspicion*, as when a man is morbidly suspicious, misinterprets the words, actions, and gestures of those around him, regards everything said and done as having reference to himself; or more pronounced delusions, such as that there is a conspiracy against him, that his friends put poison in his food, or that every little annoyance is planned for the purpose of irritating him.

(*e*) *Delusions of unseen agency*. This form of delusion is not always so easily detected, because the patient is often suspicious, sometimes as if he half doubted his own judgment, and he is therefore not always willing to speak of it. He may apparently be quite rational on all other subjects. One patient complains that the ward in which she is placed is a battery, which is being made to work on her system so as to destroy life. Another is positive that the newspapers publish observations charged with insulting references to himself, although no rational mortal could by a stretch of imagination see where the insult came in. A further example is the case of a patient who believes that he is mesmerized, and has lost his personal identity through the machinations of his enemies.

(*f*) *Delusions of identity*. The daily occurrence of cases of mistaken identity in the world at large makes it easy for us to understand how readily a morbid imagination may seize on some fancied likeness, and so entertain a delusion. A mother, having lost her only child, brooded over her loss, became melancholic and suicidal, was sent to the asylum, and in the hospital there saw a young girl who in some way may resemble the lost daughter, for the mother now entertains the delusion that this is her lost daughter, and nurses her with all the solicitude and care that a mother's love can bestow. This is a delusion of personal identity, and such are very common. Doctors and nurses in asylums are frequently recognised as old friends and called by wrong names by patients who have never seen them before. Delu-

sions of identity may refer to person, place, or sex, either from mere suggestion because of a certain resemblance, from an insane association of ideas, or as a result of a morbid, emotional state. The identity of place is sometimes in fault, especially in acute states of excitement and in senile cases. Delusions of sexual identity are more frequent in female insanity. Women (nurses, for example) are said to be men masquerading in female clothing. This form of delusion is common in women who have perverted sexual ideas.

Depression is the next symptom of diagnostic significance which we have to consider: that state of misery, unhappiness, loss of the sense of well-being, which has previously been referred to, where there is no longer any interest in life, no care taken by a mother for her household or children, an utter neglect of home duties, where the once-busy housewife sits with her hands in her lap, her head drooping, her attitude and expression those of hopeless despair. It is the essential symptom of all forms of melancholia, and is often associated with depressing delusions. There are degrees of depression, from the passing depression of dyspepsia, or liver derangement, to that depth which takes a hold of a man, masters him, and paralyzes his best energies, and it is difficult sometimes to draw the line between normal and abnormal depression.

Exaltation is the opposite extreme to depression, and we regard it as an emotional state. We meet a man who has been hitherto regarded as staid and sensible, what may be called solid and level-headed, exhibiting a state of buoyancy, extravagance of demeanour, hilarity, and absurd self-conceit, without any cause to account for it or justify it. We call this state exaltation. He has large ideas of his own importance, of his intellectual capacity, unbounded confidence in the future, indulges in extravagant prophecies, and bets recklessly without a moment's hesitation. Nothing daunts him; he is equal to any occasion. He will undertake anything; the whole world is rose-coloured, and he himself is the hub of the universe. The man is in a state of insane exaltation. As with depression, so also with exaltation, there are degrees ranging from the normal up to the abnormal,

and common-sense will guide us in drawing the line; but we must consider these states, depression and exaltation, in relation to other mental departures from the normal, such as delusions and insane impulses.

Mental Enfeeblement.—This refers more primarily to the condition of the intellect, but there is suspension or diminution of all the mental activities. The idiot, the imbecile, and the chronic lunatic are mentally enfeebled. In the case of the idiot and the imbecile, the higher levels have never been reached. In many cases there has been the bright promise of youth, but having reached a certain stage of development —probably the adolescent — an acute attack of insanity occurs, and exhaustion and mental enfeeblement are the result. Mental enfeeblement means in such cases a premature dissolution, a quick decay of mental constitution; the memory difficult to rouse, and, if at all responsive, slow, forgetful, unretentive; all interest is lost, little notice is taken of anything, and if the attention is wakened up for a moment, sustained observation is impossible. At the present time a young man is copying these pages who is in a state of partial mental enfeeblement. He will do automatically anything he learned before his attack of insanity a year ago, but any marks on the manuscript signifying 'new paragraph,' or complicated alterations, he is incapable of attending to.' His memory is slowly improving, but he cannot think much, and is unable to do such a sum in arithmetic as the following: 'If a hen and a half lay an egg and a half in a day and a half, how many will six hens lay in six days?' Next day, when asked if he had worked it, he said he couldn't; asked to repeat the question, he repeated it without a mistake. When well he was able to work out a much more difficult question without trouble. He wants mental initiative; some other Will must start him to work.

The emotions and moral nature are not in evidence, for the mental existence is negative. You find that the love of a parent for his child has lost its intensity, and is now merely automatic, a memory of the past; the will is enfeebled, and sometimes the impulses break out unexpectedly without any coherent explanation. The will and impulses

of the insane are responsible for many things said and done which render insanity sensational and appalling. If the will in health is so much influenced by the intellect and emotions, how grave its possible misdirection when influenced by insane ideas and emotions! Where the mental balance is lost and reason dethroned, the insane play of the impulses is supreme. Thus, under insane conditions the acts a man would recoil from in his sober senses he is impelled to by insane delusions and ungoverned impulses.

Disordered emotions and instincts are freely manifested in many cases of insanity. A mother spurns her offspring, declares the child she has just given birth to a cat or dog, and throws it into the fire or out of the window; she conceives an unreasoning hatred of her husband, and lifts a poker to break his head, or locks him out of the house. A man of intemperate habits becomes incontinent and gives way to unbridled passion, or conceives a dislike to his wife, out of which grows suspicion of her virtue, and then an impulse to murder her. In these and a variety of ways the emotions and instincts betray insanity.

The moral faculty also exhibits departures which are as surprising as they are deplorable. A man once the soul of truth and honour lies unblushingly, is lost to all sense of personal responsibility, utterly neglects his obligations, and is restrained by no moral consideration whatever. A man whose word was as good as his bond is not to be depended on. He was careful in giving a promise, because he was always scrupulous in keeping it. Now he will promise anything, and be utterly indifferent as to the fulfilment. Once too proud to ask a loan, he now borrows and never pays. He no longer can distinguish between his own and his neighbour's property; everything he can lay hands on now is his own. Formerly the soul of honour at cards, he cheats without any conscience.

Excitement.—The diagnostic value of this symptom depends on the amount and nature of excitement, and how far it is rational and justifiable. We are all subject more or less to excitement, and the cause to a calm, dispassionate outsider is often quite insufficient to account for our dis-

turbance. This may be all very true; but it is no diagnostic symptom of insanity, for the simple reason that all men are excitable in response to certain mental stimuli, some more, some less. To some men a longer rope is allowed, for they are naturally more mercurial, and the worst that is said of them is that they are always excitable. Joy does not kill, we are told, but it sometimes drives very sober-minded people crazy with excitement; and we have heard it said of such a man, when he is restless, unsettled, flighty, noisy, and quite beside himself, that he is 'off his head.' Even such excitement is not a diagnostic symptom of insanity, because it is soon recovered from, and the man is quite his sober self again. When excitement is unduly prolonged, when it is utterly childish in its extravagance and irrelevance, when it is out of all reasonable proportion to the cause, and when it is the outcome of delusion or other diseased mental state, we have to take note of it as probably a diagnostic symptom of some importance. In considering the matter, we must here again remember the personal equation. In making astronomical calculations, no two men observe and register with the same speed, and so we speak of a personal equation, which has to be taken into account in allowing for errors in time-recording observations. The personal equation must also be taken into account in making a record of insane symptoms; not the personal equation in the observer, but in the observed, and this is particularly necessary in taking note of excitement. One man's sense of humour will excite him so that his neighbour thinks him mad, simply because his neighbour has no sense of humour at all. In the theatre we have noticed a young man laughing out of time because his sense of humour was slow. To see him laughing hysterically a long time after, when the play had reached a tragic stage, might suggest insanity; but this would be a hasty diagnosis, and we must allow for the personal equation.

Excitement is therefore regarded as a variable quantity in different individuals, and as a statement in a certificate of insanity, if unsubstantiated by something stronger, would count for very little. Excitement manifests itself in activities

of mind or body, in extravagant emotion, tears or laughter, in unlimited indulgence of social cravings, perfervid indulgence of imagination, carrying one out of the world of ordinary life and sense. Excitement may show itself in a state of muscular unrest, a muscular impulsiveness to do something, no matter what, or go somewhere, no matter where; in the wringing of the hands, the swaying to and fro of the body, the restless agitation of melancholy, the raging fury, the violence, the rushing to and fro of the maniac, and the incessant thieving, tearing to pieces and grovelling of the excited general paralytic. Muscular activity is often a relief to mental unrest, the boiling over, the safety-valve, the instinctive outpouring of a diseased mental state. But we must remember there are degrees of mental and muscular excitement, and that under the influence of moderate excitement we may have mental inspirations and great physical achievements. A nerve is excited when it conducts an impression, the pulse when it is stimulated; but these are normal excitements. So also is that of the brain in mental work. The nerves may vibrate quickly, the pulse beat frequently, the brain work at high pressure, and the excitement is normal; but sensibility may become pain, the pulse may become rapid and intermittent, and the brain may ultimately work at high pressure beyond control. Mental and bodily excitement are not therefore fixed quantities, and there is no sharp boundary-line between what is normal and what is abnormal. Abnormal excitement is, however, to be discriminated in the way I have stated by comparing the individual with himself, and by allowing for what may be physiological.

Incoherence.—This is a symptom which must also be discounted. When a man is normally excited he is sometimes incoherent, and I need not say that when a man is drunk he is often incoherent. But these we should have no difficulty in distinguishing from the incoherence of insanity. This is a very important symptom, not only for diagnosis, but in the clinical study of the progress of a case. There are degrees of incoherence. A man may merely be rambling and irrelevant in his conversation or answers to questions. He may not be

able to fix his attention long on one topic; he may be coherent with his sentences, but incoherent with his paragraphs. He may be coherent with his words, and not with his sentences. Lastly, his words may be a confused jumble of incoherence, and his state one of incoherent delirium. We shall find cases of acute mania where we have all these grades represented in the order I have stated, as the disease deepens and intensifies; and in recovery they disappear conversely, a beautiful illustration of dissolution with mania, and resolution or evolution to recovery.

The following example of incoherence was taken by a shorthand writer as the words fell from the lips of an acute maniac:

'. . . not know shorthand; but I say draw a score, but draw it right, and a score to make it wrong. He does not know shorthand, but I know it. Damn it! you're gittering about a thing you know nothing about. Damn it! if you take that; but he does, and I see the heads of that, you being so damned clever. Well, a man came up and told me, "You're my servant." For the higher officials, for the draught, or the officials for this man's liberty. Here it goes; man must join man; man, Mr. Dykes, man more, and the whole lot of you, and the whole lot of the liars in Edinburgh, Glasgow, or Scotland! Now, you're done. It will be in for me before the law. Do you hear that? It will be into your ears in five minutes. That is the way he keeps it from you. Well, you are free on your own condition, and you are booked; and if you do that you are booked, and if you do not withdraw that you are booked as sure as there is a God in heaven. No, the God in heaven will strike you a corpse! Is it three or four? No man tipped him, no man brought him back. I shall answer to God. I will tell the truth that the God that made me through you sees it put down in shorthand that this man has been witnessing the great murders for us—this man here, you are aware. Put that down, and put it so as he, the other one. Of course he has suffered; but, of course, the priest says that those who suffer without—and he is quite aware of it—that one dose

is enough for him, that there is forty-five off his stipend; and, says he, this is the righteous man that does nothing, and, says he, that man there must be an unrighteous man, and this man is free and says . . . .'

Insane Conduct and Propensities.—There may be observed many strange exhibitions of conduct and erratic propensities, and we will be puzzled in not a few cases by the entire absence of any other manifest symptom of insanity, for frequently speech is restrained or abolished. Insane conduct shows itself in so many inconceivable ways that it is hopeless to attempt a catalogue of them. We see it in dress, in carriage, in behaviour towards others, in attitude and gestures, in occupation, dealings with property, habits as to food, drink, and amusement, and, lastly, it may be in mere exaggerations of previous character. We find the insane dressed sometimes fantastically in supposed keeping with their insane delusions of position and wealth; we observe the swinging gait of insane pride, the haughty carriage of the imaginary king or queen, the resentful manner when anyone inadvertently rubs against them, the attitude of listening to imaginary voices, looking at imaginary objects, the stand-off gesture of one, the gesture of fear in another. We observe the insane man sometimes make ducks and drakes of his property, turning night into day, wearing at one time three coats and as many vests if he can get them, refusing his food under the belief that it is poisoned, drinking alcohol with an insane thirst, eating with insane gluttony, or gambling with insane pertinacity and reckless imprudence. He is sometimes seized with a desire to possess everything he sees, and scramble for everything he can possess, no matter how valueless (kleptomania); he is sometimes seized with an impulse to burn, or does so deliberately under the influence of delusion or hallucination (pyromania). Or, again, it may be that he is the victim of a craze to tear out his eyes, pull out all his teeth, or in some other way mutilate and maim himself. He may be wet and dirty in his habits, utterly regardless of the calls of Nature, and lost to all sense of decency, even to the extent of going about stark naked. He may be destructive of clothes, bedding, furniture, etc.

Suicidal Propensity.—Suicide is not necessarily a symptom of insanity, and would-be suicides are sometimes sent to prison instead of to asylums; but the dividing-line, even in such cases, is but a very faint one, and it is safer to regard this propensity as indicating a morbid state of mental health. The rate for males is greater than for females, but where the population is dense the discrepancy is less. The reason assigned for the predominance of male suicide is that the struggle for existence falls more heavily on the male sex than on the female. The more commonly assigned causes of male suicide are vices, money troubles, and *tedium vitæ* (*vide* Wynn Westcott), whilst females are impelled to suicide by their passions, remorse and shame, and a less resisting brain. The largest number occurs between the ages of forty and fifty. The male tendency comes to its maximum after forty, the female before thirty. It is not common in childhood; but cases do happen, and it is believed to be on the increase as a result of our present system of education, but against this is to be placed the fact that the abolition of corporal punishment has removed one fertile cause of suicide in childhood.

Suicide may be premeditated or due to sudden unpremeditated impulse. When premeditated, the spell of the suicidal propensity may take hold of a man for a long time, sometimes never absolutely leaving him; but when the result of impulse, as from fear, passion, or drink, it is less likely to last long, as the mental condition is a changing one, often tending naturally to recovery. Any patient regarded as suicidal must be guarded carefully, but as unobtrusively as possible. It is better also not to relax vigilance too soon, even when recovery seems assured. We must be on guard against quiet cases, those apparently intelligent and sensible, especially if they are depressed and have no pleasure in life, if delusions of conspiracy prevail, or hallucinations, especially of hearing, *e.g.*, that a voice commands them, impels them to certain actions. Suicides are more liable to occur in the morning, because depression is then, as a rule, most acute. Remember that a patient who fears death may be impelled by this fear to actually destroy himself. The methods

adopted in the order of their frequency are hanging, drowning (especially with women), cut-throat, poison, firearms. The relation of mental health to physical health is well illustrated in the case of a chronic lunatic who had parole for years, and was trusted with the management of the piggery. News came of his wife's death, and he seemed only temporarily upset. Three months later he was seized with bronchitis, and took to bed. He became mentally depressed, and tried to hang himself in the water-closet. He was restored to life and consciousness after a strenuous effort on the part of the medical men in the asylum.

Homicide.—Here also we may have deliberate or impulsive attempts. Deliberate acts appear usually as the result of delusion or of long-smouldering passion. The impulsive attacks are made by the epileptic, the masturbator, and those subject to hallucinations. It is difficult always to determine how far deliberation can be assigned to a suicidal or a homicidal act, but it is probable that such impulses are sometimes the result of a gradual mental change going on for some time before—a growing intensity of feeling, of which the apparent impulse is the final exactment. I have one case under asylum treatment, a determined masturbator, who acts as mason's labourer, and is a most useful man. He indulges in self-abuse every morning, and for some hours afterwards is so dangerous that he has to be kept in the asylum till after breakfast. By that time he has cooled down, and is safe to go out to work. He is a case of impulsive homicide. Where, then, we have delusions of persecution, intense irritability, epileptic mania, hallucinations especially of hearing, or masturbation, we should be prepared for homicidal attacks.

Obsession.—This term has been introduced as a substitute for the older phrase, imperative conception, or *imperative idea;* and, like many symptoms of insanity, it has to be carefully distinguished from apparently similar symptoms common in the sane mind. The word 'obsession' is regarded by some authorities as synonymous with *nightmare*, and a recollection of the chief features of this distressful state will help us to understand the use of the term 'obsession' in psychological

medicine. In nightmare there is a terrorizing idea, *e.g.*, falling over a precipice or a railway smash, and a paralysis of will: speech, movement of any kind is impossible.

Obsession means, in the first place, that condition of mind in which unwelcome thoughts obtrude themselves in spite of the antagonism of the will. They predominate imperatively, so that, however much the will tries to divert thought in another direction, it fails.

Such a condition of mind everyone has experienced, but obsession means more. It means a conscious effort to prevent such thoughts taking possession of the mind, a conscious effort to defeat insane impulses, a distressed state of mind, because these thoughts or impulses are overmastering, and a feeling of relief only when this distressing state of mental tension has been relieved by giving up the struggle and letting the imperative idea or impulse have its own way.

Illustrations might be given *ad libitum*. I remember an old gentleman whose life was one constant mental torture, trying to recollect names. He couldn't work, eat, sleep, or think of anything else, and he spent several days and nights of deplorable misery trying to remember the name of a river in Fife. Various fears are classed here: agorophobia (fear of open spaces), claustrophobia (fear of narrow or close spaces), acrophobia (fear of high places), and many others.

Many homicidal and suicidal impulses are true obsessions. One gentleman could not sit at table with his family, for a homicidal idea, suggested by the knives, at once dominated him, and he had to seek refuge in an asylum, so great was his anguish and dread of giving way.

Aboulia is an extreme state of volitional weakness, or, as the name indicates, *loss of will;* there is inability of the will to act, and there is distress because of this. One of the most frequent forms, as stated by Régis, is the inability of a patient to rise from a sitting posture. As a matter of fact, the explanation of some actions being more easily accomplished than others is that less volition is required.

The volitional energy required by tramway horses to start the car is greater far than that required to keep it running. It requires less volition to let a hand fall than to raise it, to

sit down than to rise up. Aboulia, and obsession, which is a variety of it, are conditions which come and go, there being an ebb and flow of the intensity.

Verbigeration is an affection of speech not uncommon in the insane, consisting in the monotonous repetition of the same words or sounds or sentences, without any mental conception or stimulus to account for them. A very intelligible example is given in Tuke's 'Dictionary of Psychological Medicine.' A female patient, who constantly stationed herself at the main gate of the asylum, used to call out all the day long to every passer-by, whether physician, attendant, or fellow-patient, 'Please, my golden doctor, do give me the keys.' For the sake of experiment, the keys were given her, but this did not stop her monotonous speech. To enter in the journal, 'The patient constantly stations herself at the door, wants to get home, and asks for the keys,' would be incorrect. Verbigeration is found in several mental states, in chronic insanity, states of stupor, and in the epileptic and general paralytic.

CHAPTER V.

CAUSATION—PROGNOSIS—TREATMENT.

Causation—The wide significance of heredity—Insanity of the degenerate—Statistics of heredity—Predisposing and exciting causes discussed—Examples of such—Prognosis affected by heredity—Previous attacks—The cause of the attack—The nature of the onset—The question of physical complications—Functional and organic conditions—The mental character, and the habits of the patient—General Principles of Treatment in private practice and in asylums—The advantages of each compared, and their disadvantages—The cases that do best in private practice, and those which should be sent to asylums.

Causation.

The causation of insanity is one of the most perplexing problems of the whole subject. Much has already been said and written with a lack of caution that is to be regretted, and the general public, as a result, imagine they know all about it, and that two factors account for everything—heredity and alcoholic excess. The discussion of the whole question would lead us far afield—too far for a work of this size—but we may with great advantage take a broad view of the subject, albeit we must make it a cursory one. It is quite true that heredity plays an important part in the causation of insanity, but we have to remember that heredity is a factor of variable quantity and distribution. Going back through the history of the ancestors, we will come to a time when there was no insanity, and yet the seed might be germinating and propagating generation after generation until the outward signs became manifest, perhaps at first in a mild form, although there is nothing certain as to the manner or degree of a first appearance, or the number of

individuals likely to be affected. It may appear in one member alone, or several may be affected differently. The first sign may be dipsomania, epilepsy, or some other nervous disorder, or unmitigated insanity at the outset. Following this, we will probably find insanity a more marked feature of the family history thereafter, but in no two cases is the starting-point or the angle of deviation the same.

The individual germ has subtle potentialities which we cannot fathom. A whole host of accentuating influences may determine a rapid departure at a tangent from the normal, and the individual in whom this occurs may be the family scapegoat, or the morbid influence may be widespread, so that there is a diffuse family contamination less, or differently, accentuated in each individual. On the other hand, a whole host of modifying influences may determine results precisely the opposite, and ultimately the germ of possible insanity may disappear altogether. Heredity is thus a variable quantity. It is a bias which may be moderated by favourable circumstances, and its force does not necessarily accumulate as time goes on. The dose in one family may be larger than in another. The family may be extinguished, or it may recover by a new tangent, and come again more into the normal line. When heredity, so to speak, tightens its grip of a family, the tendency is for each succeeding generation to succumb earlier than the preceding. Thus does Nature eventually wipe out the mental weaklings. Looking at the matter broadly, we are not justified in saying that because one man's father was insane, and he afterwards becomes insane himself, he only possesses heredity, while the man who becomes insane, and whose forbears exhibited no evidence of insanity, possesses no heredity. The germ may lurk unsuspected in a previous generation.

The next question is, In what way does this heredity manifest itself in the mental constitution and character of the individual? It may do so by arrest of mental development, idiocy, imbecility, mental weakness, or moral insanity. It may do so by a subtle indistinguishable deviation from the normal which is not noticeable at birth, but which is made gradually manifest as youth springs into manhood, if

not earlier. The deviation has no clear dramatic starting-point. It is essentially a part of the man himself, and must ultimately develop into a monomania or partial insanity of some kind or other.

You will find in practice many cases which call for decisive treatment in asylums some day after they have reached maturity, or during the period of adolescence; and you will say to yourself, 'That man was never like other men,' but you could not hitherto say that man was insane; and no one could put his finger on anything in particular and say, 'Here are distinct symptoms of insanity.' The man's mental constitution and character was developed, to all intents and purposes, like that of other men, so far as the ordinary observer could see; but a certain bias was given to the mental development at birth, and the deviation became more apparent as time went on. Such cases are necessarily incurable, because the germ was there and active at the outset of their career, and the insanity is, so to speak, their normal and essential character.

This brings us to the consideration of a term which has been introduced of late years by Legrain, viz., the insanity of the degenerate instead of hereditary insanity. The term 'degenerate' has a very objectionable suggestion, and must necessarily include many criminals in this class. Moreover, it is made to include, not only low forms of degeneracy attended with physical deformities and asymmetry and all forms of mental weakness down to idiocy (*vide* Tuke's 'Dictionary of Psych. Med.'), but also 'the mental condition of the highest form of the degenerate,' 'which is consistent with great intelligence.' Indeed, as the late Dr. Hack Tuke observed, 'there seems to be a danger of employing the term "degeneration" in so comprehensive a sense as to comprise forms of mental disorder under one head which differ widely in their form, their prognosis, and their treatment.' The term 'degenerate' should be limited to those cases where heredity is so overwhelming that idiocy, imbecility, mental weakness, or moral insanity is obvious in early youth; but 'insane heredity' should be the term retained for cases of acquired insanity, and also for those just described who have

from youth onward slowly and insidiously displayed an insane tendency, but who are in many respects as mentally capable as their fellows.

Heredity may show itself in a sudden mental breakdown due to any exciting cause of itself insufficient to produce insanity. The mental resistance varies in different individuals, and as the degree of resistance, so is the mental stability. Many causes are given as capable of producing insanity, and the fact that they fail in some cases and succeed in others, all other things being equal, shows that the degree of resistance varies in different individuals. There are many insane people, on the other hand, who have been subjected to greater strain than their more fortunate fellows, and placed under the same favourable conditions they would never become insane. The degree of resistance and strain must, therefore, be taken into account. It is also true that many lives are victims because of their unselfishness, their high moral tone, and their noble if sometimes misguided sense of duty, while many escape because they are sufficiently selfish to take care of themselves and not too selfish to be viciously self-indulgent.

From all these considerations, we must gather that 'hereditary predisposition' is a very wide term, that it should not strictly mean that there has been insanity in a direct or collateral ancestor, but merely that in one or more previous generations pathogenic influences have been accumulative. The influence of heredity, as we have been accustomed to speak of it in a narrow sense, is differently brought out by different writers. Although not usually quoted in statistics of insane heredity, it must be remembered causes may be assigned, such as epilepsy, alcoholic excess, and masturbation, which may themselves be due to heredity, though insanity as such has not until now made an appearance in any generation. Insanity must have a beginning, and when it does begin in the family tree, who dares say that there is no hereditary disposition? We will find the first evidence of it often in the child, the father or mother giving evidence of insanity for the first time later on. And we will find insanity, like consumption, escaping a generation.

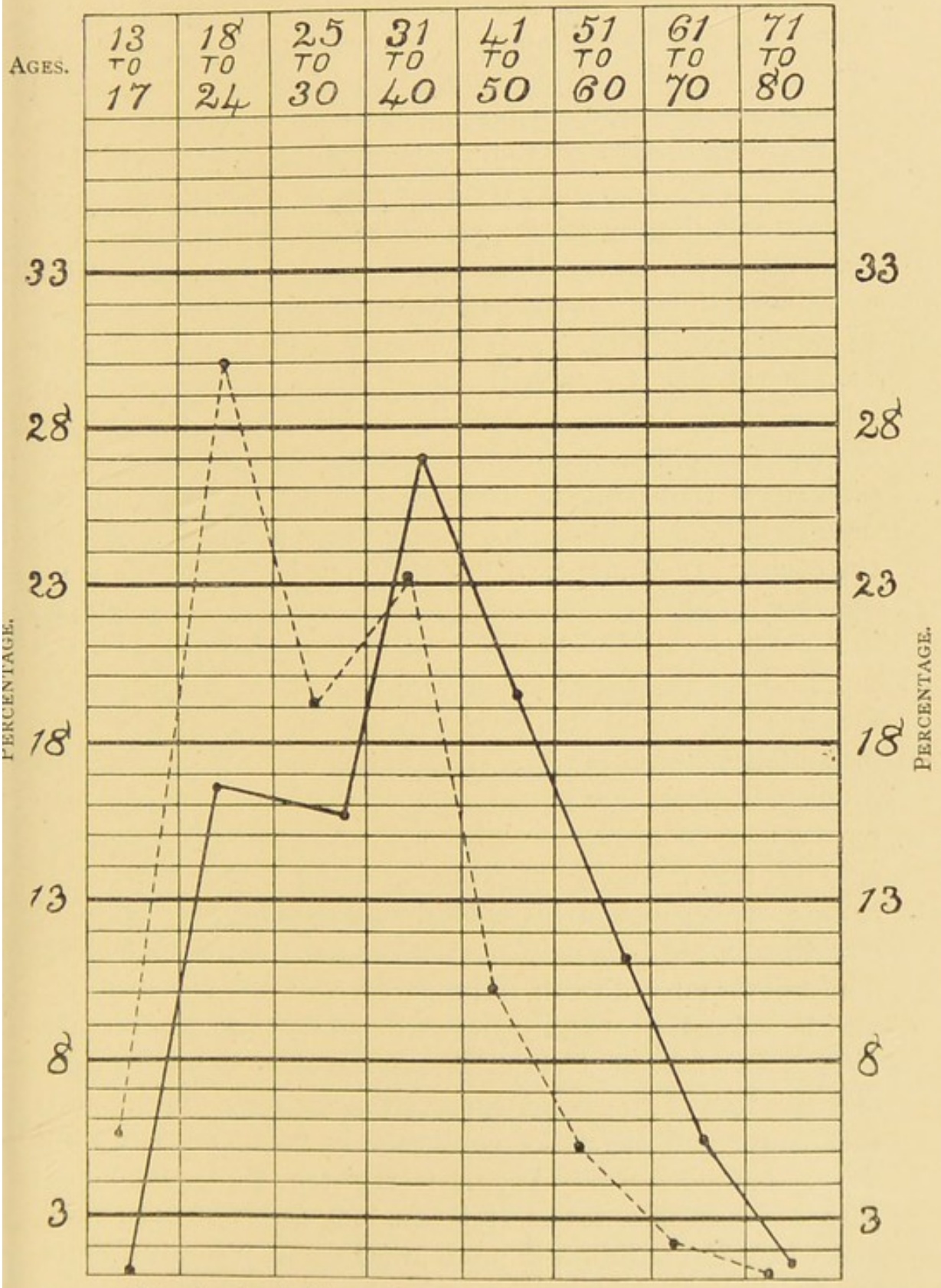
In 255 cases out of 1,276 persons admitted to asylum treatment, I found a clear antecedent family history of insanity in one-fifth, and, from what has been said, we can understand that this does not represent the full measure of hereditary weakness, because only antecedent insanity is here reckoned, and minor departures from the normal are not recorded. Besides, it is difficult to get the whole truth from friends, and a complete history by the family medical man is often a thing impossible. A larger proportion of my female patients were hereditary cases, 25 per cent., and only 17 per cent. of the males. The statement of Baillarger, that maternal heredity is three times more common than paternal, is not borne out by my statistics, the maternal being only 20 per cent. in excess.

We may now at this stage compare the statistics of different ages with and without known heredity, and the following chart, compiled from the experience of fifteen years, furnishes a graphic and instructive illustration.

This chart, illustrating the general rise and fall in the percentage of insanity of all ages, and side by side the rise and fall of heredity at corresponding periods, shows that the maximum of insanity is reached in the fourth decade, and the maximum of heredity before the age of twenty-five. It shows also that heredity is the predominant factor up to the age of thirty, and thereafter it is more subordinate, being of least account between the ages of forty-one and fifty, but gradually rising in importance thereafter as age advances.

The causes of insanity are of two kinds—predisposing and exciting; but a sharp distinction is not always possible between the two, because the predisposing is sometimes also the exciting cause, and *vice versâ*. Heredity is the chief predisposing cause of insanity, and allied to heredity in this sense are previous attacks of insanity. Where there is no clear evidence of heredity, an attack of insanity itself establishes a predisposition, and it may be accepted as a general rule that the more frequent the occurrence of attacks, the less becomes the resistance to any given exciting cause. To this there are exceptions, as in puerperal and other conditions; for the physical health may be up to par at one

CHART ILLUSTRATING THE RISE AND FALL IN THE PERCENTAGE OF INSANITY OF ALL AGES, AND SIDE BY SIDE THE RISE AND FALL OF HEREDITY AT CORRESPONDING PERIODS.



Unbroken line indicates the general percentage of rise and fall.
Broken line indicates percentage of heredity.

time, and not at another. To the general rule add 'other things being equal.'

Epilepsy and masturbation are examples of conditions due to heredity, which may be predisposing or exciting causes. As a rule, they belong more to the predisposing period, and are only very rarely elements of the exciting cause. One more example of a predisposing cause is long-continued ill-health, and it may be the exciting cause as well, the last step in the down grade liberating the morbid energy, being like the last drop in the bucket which causes it to overflow.

Exciting causes are those which operate by precipitating an attack. They may be sufficiently powerful of themselves to produce insanity, even if a man is not streaked with heredity at all. Of such the most obvious is alcohol. But when alcohol has been operating insidiously on the chronic soaker for years, and his mind becomes affected, it is difficult often to say how far alcohol has predisposed the man to mental breakdown, or how much it has precipitated the event. We must carefully study the history of the man, and his social life. A medical Sherlock Holmes would be invaluable for the unravelling of the tangled threads, the puzzling mazes, of the life-histories of many of the insane. Observe the mental change in this chronic soaker, who may ultimately become insane. His moral sense is blunted, his intellect is less acute, his memory confused, and he may have strange sensations and become suspicious of conspiracy, *e.g.*, of the intrigues of women, without any reasonable cause; or, because of his mental susceptibility, the ordinary circumstances of life may suggest the most outrageous ideas. The soil for an outbreak is prepared, and any circumstance may be enough to start the outward manifestations of disease. If it is the loss of a child, we say the alcohol predisposed, and the loss of the child excited the disease. The fact is that cause and effect are continuously going on in all our lives; influences physiological register gain, influences pathogenic register loss. It is one long series of sequences, and where the pathogenic predominate and insanity results, the last in the chain is said to be the exciting cause. The question of predisposing or exciting is one of time occurrence,

and the potency of each will vary in every case. In speaking as follows of exciting causes, we will now be prepared for the statement that the term *exciting* is convenient and elastic, rather than strictly accurate.

It has been customary to speak of moral causes, and to include as such anything having a serious emotional effect on the individual. The term has been so long in use that it may be retained; but it is also allowed a rather elastic license. Of causes coming within this category the number is very great, but for typical examples of them we may quote domestic trials, loss of relatives or friends, unfortunate love affairs, strikes and their evil effects, hardship and exposure, solitary imprisonment, losses in business, fright, surgical shock. Some of these act in a physical as well as in a moral sense.

Toxæmic conditions are frequently in evidence in the rôle of exciting causes—alcoholism, chronic poisoning by drugs, such as opium, cannabis indica, and cocaine, the gouty, rheumatic, and syphilitic states, septicæmia (especially puerperal), influenza, and many others, some of them less known and less frequent.

The following may be taken as examples of physical causes other than toxæmic: exhaustion and anæmia, sunstroke, injury to head or spine, and the changes of evolution and dissolution at the critical epochs of life.

Prognosis.

This is of great importance. A man's position in life, the future of his business, the ordering of his household affairs, the education of his family—these and many other equally important decisions are contingent on prognosis; and many serious perplexities regarding the future would be quickly solved if the prognosis were sure in the case of the patient, male or female.

An accurate diagnosis is often a much more simple matter than a sure prognosis, and of late years the subject of prognosis has been very fully discussed, with a view to rendering it more positive and reliable. There is grave risk in prophe-

sying with absolute certainty at an early stage of mental disease, and above all in prophesying unfavourably, because apparently similar cases have proved intractable and incurable in past experience. In considering the question of prognosis, several points may be raised by the friends, if not by the physician. You may be asked, 'Will the patient recover?' If you answer cautiously and with reserve, you may then be asked, 'Will he recover a sufficient amount of reason and self-control to justify his being set at liberty, and being allowed a certain amount of responsibility outside?' For business or other reasons you may be asked, in a mentally hopeless case, 'How long is he likely to live?' If the patient recovers, you may be asked the question, 'Is the attack likely to recur, and how soon?'

In considering what your prognosis will be, you must first determine, if you can, what has been the cause of the mental attack. If it has been heredity, you must decide what bearing this has on the probable course of the disease. At one time it was considered that patients with inherited taint were more incurable than those without; but it is now generally conceded, as the result of experience, that the chances are better on the whole for such cases than for those having no hereditary taint, but with this reservation, that, their brains being more unstable, they are more liable to a recurrence of the disease. If a patient has had attacks before, the chances of recovery diminish with every succeeding attack, and the tendency usually is towards dementia.

Causes mental (moral) and physical must now be considered in their bearing on prognosis. As a rule, mental causes are not of themselves of great significance. Their gravity is deepened when they affect individuals whose normal state of feeling has a distinct bias towards the abnormal. A man who has never known what it is to be hilarious, or even moderately happy, a man of bilious temperament and with an everyday state of feeling which is slightly depressed, is more likely to give way with less hope of restoration than a man of more elastic and vivacious temperament. In computing the prognostic influence of causes, it is well to remember, and it is here stated once for

all, that no single factor should guide you to a decision. As with diagnosis and causation, the patient's case should be considered in all its bearings.

Where physical conditions can be found to have had a profound influence in the production of the disease, if they can be removed, that counts for so much in favour of a good prognosis. Many forms of bodily disease accompany insanity, and in the hospital wards of asylums a great proportion of the mental cure is obtained by ordinary hospital treatment. The prognosis of the bodily disease is often to a considerable extent the prognosis of the mental. If the patient is afflicted with phthisis, especially if it is progressive and pyrexial, the prognosis is not good; but if it is latent and the patient does not lose weight, but rather gains, the prognosis is more favourable. If you find constipation a well-marked condition, and that it has not been a habit of long duration, the prognosis is good, providing the mental disease is functional, not organic. I have several times been astonished at the remarkable results obtained in the treatment of cases where the mental symptoms were severe, and the prognosis seemed otherwise grave, by relieving a loaded state of the bowels. In puerperal insanity this loaded condition of the bowels is sometimes found. It has been also found in acute cases where the exciting cause or causes, *e.g.*, bereavement and religious excitement, obscured and overshadowed everything physical, so that utter neglect of the ordinary laws of nature was the result, and, of course, neglect of the *primæ viæ*. There are also, as examples of physical conditions, septicæmia, sometimes of a very mild character, anæmia, and reduced health from exhausting conditions or from hard times.

You may lay it down as a safe rule that, whenever you can account for the onset of insanity by pointing out causes which are removable, or when there are physical conditions accompanying the disease, which cannot of themselves be favourable to mental health, and when you can remove these causes or physical conditions by medical treatment, hygiene, proper dieting, and so forth, the prognosis is in so far favourable. Increase of weight is a good sign if there is with it, or soon after, an amelioration of acute symptoms

and a restoration of sleep, or in melancholia of the quiet kind if there is a disposition to work or be interested in others. But you must be guarded here also. Increase of weight is usually registered before there is any appreciable sign of mental improvement, and it may herald dementia as well as recovery. It is still a moot point whether recovery is more likely to take place in males than in females. According to some authorities, the advantage is with males, and according to others it is with females. It is certainly true that organic disease is less frequent among females than males, and, *pro tanto*, the chances of recovery are better for females.

It is next important for you to decide whether the case is one of functional or organic disease. The term 'functional' is here used in a relative sense, because it is impossible that there should be disease without some organic change, even if it is microscopic and transitory. The chances of recovery are greater in functional cases than in organic. Of the latter may be mentioned general paralysis, tumour of the brain, grave syphilitic lesions, cerebral softening, and so forth.

Masturbation is a very bad sign, but the case is not absolutely hopeless, if there is a history of its only being an acquired habit of recent date. I have known men who masturbated and admitted it, and tried to defend it on physiological grounds. One was insane and recovered. He was a medical man, and practised successfully for nearly twenty years afterwards. The prognosis in melancholia may be delayed for a much longer time than in mania. Melancholic patients have been known to recover after seven years' insanity, and there are cases on record where recovery has occurred after an even longer period. With mania there is more active disease, a more rapid course, and the recovery is early in many cases, though in some it is delayed; and where the symptoms remain acute for a long time, there is danger of death from exhaustion.

It is usually held that delusions which are fixed and do not change from day to day are a bad sign, whereas fleeting delusions are a good sign. To this, of course, there are exceptions. In general paralysis there are many apparent

delusions to which I have already referred as fleeting rather than fixed, and the prognosis here is very grave. The duration of the disease, as already indicated, is of importance in estimating the probable outcome of it. The longer the duration of the disease or its cause, the worse the prognosis. The nature of the onset is also an important point. If it has come on suddenly, the chances of recovery are better, and the chances of a quick recovery are also better. The age of the patient will also assist us in coming to a conclusion. The proportion of recoveries among the young is greater than among older people. It is natural to suppose that the older a person gets, the less should be his recuperative power; but cases of recovery are known even among senile patients, and they are not at all infrequent in climacteric cases.

Refusal of food is a symptom which has been regarded as of some importance in arriving at a prognosis. Too much has, perhaps, been made of it; but, as it is not an uncommon symptom of insanity, and as its causes and mental accompaniments vary, some useful hints may be obtained by a study of these in relation to the course of the disease. The prognosis is reckoned more favourable in the case of females refusing food. According to Dr. H. H. Newington, it would seem that 'when a man takes to refusing his food, he does it with some object, whereas a woman would do it with no object at all—perhaps simply hysterically.' This must be received with a qualification. Cases of very persistent refusal of food do occur in the insanity of females, but the records of long periods of artificial ingestion refer almost invariably to males. My first case was an old soldier who had not tasted food or drink for seven years, and I had a patient some years after who was fed twice daily for over two years. The first died from chronic phthisis, the second partially recovered. Dr. Henry Sutherland, who has written a very interesting paper on the subject, regards the prognosis as good if the patient takes food after one feeding by stomach or nasal tube, or if refusal is due to a removable cause, such as constipation, dyspepsia, etc. He says the prognosis is bad if the patient loses weight steadily, and that persistent

suicidal refusal of food is an unfavourable sign. With regard to the last two statements, a reservation must again be made, and you require to be cautious in pronouncing unfavourably if cases of that kind come under your care, as I have had experience of such with excellent recoveries. You must carefully discriminate between mental and physical causes for refusing food. It may, like the mental disease itself, be a symptom of a reduced physical condition, with physiological inertia and anorexia, and, when the cause is removed, recovery usually takes place, the patient's voluntary feeding being one of the first favourable signs. Some of the most hopeless cases are those who refuse food under the influence of dominating delusions, or hallucinations. Other things being equal, the prognosis is more favourable in the young than in the old. It is often a fight between a keen, craving appetite and a mental antagonism, the appetite ultimately becoming the more persuasive of the two.

General Principles of Treatment.

In speaking of the various forms of insanity, reference will be made to the treatment of each; but there are general principles which apply more or less to all cases, and general instructions on treatment may be introduced here with great advantage in order to prevent frequent repetition. We have to look at the matter from two points of view: the one is that of private treatment in private houses, and the other of asylum treatment in association with other patients. The general practitioner has certain advantages over the asylum physician, and the converse also holds true. In general practice there is the advantage of getting the patient at the very outset, of knowing something of his family history and his own individual case, and of seeing the first premonitory signs of the disease. It is true that the premonitory symptoms are not always apparent even to the family physician, and it is of the utmost importance that he should be skilled in reading the signs of approaching mental disease, and the evidence of causes which may possibly bring it to pass. A great deal can be done by a skilled physician,

especially if he is in the family confidence, and particularly in the confidence of the patient, in averting or mitigating attacks of insanity.

The asylum physician has, however, some advantages over his professional brother in general practice, and these are asylum discipline, routine, experienced attendants and nurses, and the removal from the obstructive, though well-meant, interference of friends. In the asylum the rules are made by the doctor, and his orders are rigidly carried out. In private practice the doctor may make what rules he likes, but he has not always the guarantee that they will be carried out. Moreover, in private practice there is not the same facility for segregation of an insane patient, for removing him to a place where he will neither disturb others nor be disturbed himself, for giving him free open-air exercise and manual labour away from the obtrusive curiosity of the senseless crowd.

In coming to a decision as to what you should do in a given case of mental disease, you have two points to keep before you: *First*, the nature of the case; *second*, the resources of the patient or his friends. The resources may be ample and suitable in every respect, but the nature of the case may be such that there is only one course open to you, and that is asylum treatment. By resources is not here meant merely the amount of money, but the question of accommodation, the position of the house, its structural arrangement, the means for isolating the patient, for keeping him under supervision, and the amount of scope which is possible for him outside the house altogether. Of course, it goes without saying that money is an important element in the calculation, for the treatment of an insane patient in a private house is rather expensive.

If it is an acute case, two attendants or nurses may be required—one for day, and one for night duty, or even more. The amount of paid attendance will be determined by the extent to which you can rely on the judicious assistance that can be obtained from friends. A house in the country, if it is commodious enough, and has suitable rooms, is for an acute case very much better than any residence in town,

although many cases not so acute in character, and not so deeply deranged, are often treated successfully in populous centres. You must always bear in mind the possible effect on the relatives as well as on the patient. What has just been said applies more particularly to cases where the attack is recent, and where there is naturally strong hope of recovery. It may be too soon yet to attempt a prognosis, and if private treatment is possible, and to be recommended from a medical point of view, it averts the stigma which, unfortunately, attaches too much to asylum treatment. Many cases can be treated at home after the acute stage is past, and when recovery is no longer possible, for the risks of the acute stage have disappeared, and home care and supervision are now possible. If an acutely insane patient is to be treated at home, or in some other private house, an irksome responsibility is incurred by the family physician if he undertakes the case, and more serious than is incurred when the patient is sent to an asylum.

It is well now to consider what cases are most likely to benefit by treatment at home, and what ones are most likely to benefit by asylum treatment. My experience is, strange though it may seem, that acute cases of mania have been more successfully treated in private houses than cases of melancholia. The acute case of mania is often more or less oblivious to his position and surroundings. He sometimes does take advantage of his relatives and friends, who are usually too indulgent to his whims, and suspicions, and violent outbursts ; but he is not so utterly self-engrossed as the melancholic patient, and the treatment which can be provided in a private house where the means are available, and under the charge of capable attendants, is often sufficient to ensure his recovery, especially if the case is a transient one.

For the melancholic, except mild cases, where the prognosis is obviously good from the first, I am disposed to recommend asylum treatment as a rule, even where the financial position is adequate. If treatment must be resorted to in a private house, let it be a private house which is strange to the patient, and let the servants and attendants be strangers also. This rule applies also to mania and to

any form of insanity, with a few exceptions, which need not be specially referred to, as no two cases of them are alike, and they will be obvious when they do occur. There must be cases where a strong family attachment, the nursing devotion of a relative, will help towards the cure of the patient more than strangers. These cases are exceptions, and must be judged on their own merits.

To treat successfully a case of insanity in private practice, certain rules should be kept in mind: *First*, except in special cases such as those just referred to, allow no interference on the part of a friend. I remember a case of a young lady under the charge of two nurses, who was persistently fed according to the instructions of her father and mother, contrary to the doctor's orders, the nurses having weakly succumbed to the influence of the parents. Such a case should never have been treated at home, although she might very well have been placed in a house away from the influence of her relatives. *Second*, a rule of importance is to secure good supervision and nursing, and therefore the judicious selection of attendants is a primary precaution. It is generally found that those who have had asylum training are much more reliable, and show better pluck than those who have no experience of mental nursing. *Third*, it should be the doctor's business to see that the nurse or attendant is not overtaxed, that she gets enough sleep, enough recreation and exercise in the open air, suitable food, and no stimulants. It is usually necessary to have a day and night nurse where assistance from the friends is undesirable, and it may be necessary to have more. *Fourth*, the nurse must be carefully instructed as to the nature of the case, its probable outcome, the risks, such as suicide, homicide, setting fire to things, and so forth. She should be provided with a note-book and temperature chart, in which entries should be made as to the diet, state of the bowels, pulse, temperature, mental symptoms, sleep, exercise, etc. *Fifth*, all possible risks should be minimized, and they are greater in private houses than in asylums, where special precautions are taken, and special structural provision is made. Everything such as knives, razors, weapons of any

description, should be removed, and there should be as little furniture in the room as possible. Where there is any risk of suicide, the room should be on the ground-floor. *Sixth*, the patient's weight should be taken in an acute case at intervals of three days; when less acute, at intervals of a week or a fortnight. In the 'Hand-book for Attendants on the Insane' (published by Baillière, Tindall, and Cox), there are directions given to nurses, and valuable information regarding the treatment of the insane in private houses.

It may be well now to inquire into the usual medical routine of asylum treatment, and such hints as can be gleaned and prove available for private practice will be pointed out *en passant*. When a patient is admitted to an asylum, one of the medical officers receives the patient, hands him over to an attendant to be undressed and put to bed for medical examination, and while this is being done, interviews the friends if they are present, and obtains a history of the case. The history comprises physical as well as mental incidents, and consists of three parts: 1. Hereditary. 2. Personal, from time of birth onwards to the time of the mental attack. 3. Present attack, including (*a*) prodromata—change of manner, habits or conduct, sleeplessness; (*b*) mental development of attack, the symptoms being stated in the order of their appearance; (*c*) order of appearance of the physical symptoms—appetite, digestion, state of bowels, micturition, and other symptoms. With the information now obtained, and any further suggestions from friends, the predisposing and exciting causes may be inferred, if not ascertained with certainty.

The medical examination is similar to that conducted in the wards of a general hospital, only that nervous and mental symptoms are invariably looked for and stated as fully as possible. Each hospital has one or more methods of case-taking, with which students are familiar, and it is only necessary here to limit attention to the mental inquiry. The following system may be adopted:

1. *Attention and Observation.*—Can the attention be fixed? Is it so only temporarily? Or is it done with difficulty? Does he observe what is done in his presence?

2. *Apparent Consciousness.*—Some patients, indeed most, are more or less conscious of what is passing on around them; but the field of consciousness is more or less narrowed with many, and they often need to be roused before there is apparent consciousness at all. It is well to distinguish between apparent consciousness, which is evident at first sight, and that which is only evident on being roused. I have noticed the attention roused, thus indicating a degree of consciousness, as a passing glimpse in a case of acute delirious mania. Many have been conscious, as we learn after recovery (melancholic stupor), who cannot be roused to give any evidence of it when stupor is profound.

3. *Can he answer Questions?*—Some cannot, perhaps from paralysis or despair, or because inhibited by an imperative idea, and others because of dementia; but many fail to answer from obstinacy, suspicion, or pride.

4. *Brightness or Dulness of Intellect.*—If the patient does not speak, and the expression is negative or clouded, not much information can be elicited here. A patient, persevering inquiry, an enticing manner and tact, are very helpful in drawing out the patient frankly.

5. *Speech.*—Reticence or frankness. The vocabulary of the patient can be tested, and the motor function of speech, whether free and unrestrained, or halting, tremulous, stuttering, slurred, or more or less paralyzed.

6. *Coherence.*—As already stated, there are degrees of incoherence, and a man may be coherent and yet rambling in his statements.

7. *Memory.*—This should be fully tested, and the following distinction is very important: (*a*) of recent events; (*b*) of older events.

8. *Expression.*—It may be obtuse, suspicious, happy, melancholy, excited, etc.

9. *Exaltation.* } These have been already referred to as
10. *Depression.* } diagnostic characters.

11. *Excitement*—of manner, speech, reminiscence, religious, etc.

12. *Delusions and their Character.*—Refer to previous classification.

13. *Hallucinations or Illusions.*—Specify the senses involved.

14. *Additional Observations* as to habits and propensities (filthy, destructive, indecent, etc., suicidal or homicidal tendencies). Has he attempted suicide or homicide, or has he only threatened so far ?

15. *The Attitude and Gait of the Patient.*

It may be that this is too long and elaborate a system for private practice, but it will serve as a guide, and much that would otherwise escape notice is in this way brought to light. The patient is examined also for marks of injuries, skin eruptions, and any external evidence of disease. It is most important to do so, for, just as in the excitement of battle wounds are unheeded, in the excitement and distraction of mental disease injuries may occur without the patient being conscious of them, and to overlook the fact would be a serious mistake.

A word of caution may be here given with reference to the physical examination of internal organs. The sensibility of the insane is often diminished, and the visceral reflexes are often abolished, or nearly so. Thus, a patient with phthisis or pneumonia may have no cough or spit, and the temperature may be only normal or slightly above it, as in a recent case under treatment, where the stage of gray hepatization of the right lung was reached in a female paralytic, and only discovered post-mortem.

The temperature of the chronic insane is usually below par, and in dements the thermometer often registers as low as 96° ; but in acute mania it is above normal, though not markedly so, and in general paralysis, in post-convulsive and apoplectic states, and in acute physical diseases more or less. But, as already stated, there may be exceptions to the last-mentioned rule.

The patient next receives a cleansing bath ; frequent cleansing baths are most helpful in preventing undue obstruction of the excretory channels, and pathological observation reveals the fact that in the brain this is apt to occur where there is persistent afflux of blood to the brain. It is a usual rule, if there are no contra-indications, to prescribe opening medicine at the outset. In practice it is found to

be beneficial, and not a few cases are relieved—of at least their more acute symptoms—by careful attention to the skin, kidneys, and bowels.

If the patient is depressed, or has threatened or attempted suicide, or suffers from commanding hallucinations, he is placed in a dormitory under special observation. If acutely excited, aggressive, violent, or homicidal, he is placed in a strong side-room with observation window in the door, or, if need be, in a padded room; if epileptic, in a special dormitory for epileptics; if in weak health, in the hospital. In private practice there is little or no choice; but the distribution above described suggests various considerations to be kept in view in the disposal, supervision, and care of the patient.

In private practice, where the case is acute, to avoid risk of injury to the patient or others in attendance, what is known as the dry-pack may be adopted, and for surgical treatment of acute cases this is often absolutely necessary in order to ensure rest to the diseased or injured part. The patient is enveloped, hands and feet included, the head and neck only being left bare, in a blanket which is stitched from the feet upwards; but care must be taken not to restrain the thorax and abdomen too much, and to release the patient and sponge the whole body, for cleansing and soothing reasons, at least twice in twenty-four hours. This dry-pack is useful, but it is liable to be abused, and the nurse should not be implicitly trusted as to its use.

Patients have been known to die in the dry-pack for want of the precautions which have been mentioned. As soon as possible it ought to be dispensed with, and the medical man in charge of the case should, while it is in use, see that there is no undue restraint, and that the patient is cleansed after evacuations, and, as already stated, sponged all over not less than twice in twenty-four hours.

The wet-pack is frequently used in some asylums for acute maniacal cases, and the method adopted is as follows: Two pairs of blankets are laid out across the bed, the naked body is wrapped in a sheet wrung out of water of a temperature of about 50°, and applied so as to envelop the limbs entirely as well as the body. The blankets are then wrapped round

the patient, enclosing him and his wet-pack, and he may be thus kept for twenty minutes to an hour, or more if necessary; but under medical supervision, and always with the risk of exhaustion or syncope kept in view.

Hydropathy may be tried by other means in like cases, such as tepid baths, with cold to the head, alternating warm and cold douche, or the Turkish bath.

Opinions vary as to the efficacy of these measures; but in private practice, where resources are few, it is well to have them in mind, and in critical emergencies they may prove serviceable.

CHAPTER VI.

GENERAL PRINCIPLES OF TREATMENT (continued).

Alimentation — Refusal of food — Forced alimentation — Objections — Methods — Exercise — Sleep — Attention to bowels and urine — Bed-sores — Danger of accidents — The insane ear — Menstruation — Rest in bed — Travelling — Thyroid treatment — Classification.

ALIMENTATION.—The feeding of the patient in all cases of recent or acute insanity must be regarded as of very great importance. He may take his food readily with eager avidity, with impulsive haste, and bolt it into the stomach imperfectly masticated and devoid of salivary digestion. This is quite common in acute maniacal conditions, but the opposite not infrequently happens, and the patient refuses food, or requires to be coaxed, and eats very slowly in a dribbling, inconsequent, indifferent manner. Great tact is often required in getting insane patients to take their food, and it ought to be impressed on the nurse as of far more consequence, and far better for the patient that the food should be taken without compulsion, because its digestion is then more perfect and nutritious. Much depends on the manner in which food is served. If it is palatable and has an appetizing odour, if it is presented to the patient on a spotless tray-cloth with all the accessories bright and clean, it is more likely to tempt a capricious appetite than if it is served rudely and offensively. It is well to bear this in mind, for the insane are more sensitive than one might suppose, and because many patients have very little appetite, and their powers of digestion are below par. The nature of the food must be prescribed by the medical attendant. If the patient is epileptic or paralytic, or dysphagic, it must be

triturated small, and liquefied, so as to permit of being easily swallowed, for the risks of choking in such cases are considerable. For patients who bolt their food it is well to have it chopped fine beforehand, to have it liquefied also, and to have the patients spoon-fed. The nurse should receive implicit instructions to grudge no time or patience with patients who linger and toy over their meals, for the non-success of treatment in flaccid, anorexic, anæmic cases is often due to the abrupt manner and careless indifference of the nurse who presides over the meals of such patients.

Absolute refusal of food adds very much to the difficulties of the case. In some instances it may be a misnomer to speak of absolute refusal of food. There may be no resistance whatever, a mere suspension of will-power, and the artificial feeding of the patient may be the easiest thing in the world, but as a rule there is more or less positive refusal of food where forced alimentation is called for. It may be simply due to want of appetite, with absence of any sense of duty to maintain life. This want of appetite may be the result of a purely atonic condition, or of some grave organic disease of the alimentary tract or relative viscera, or any other cause likely to induce anorexia. It may be due to obstinacy in an irritable patient, to insane pride and self-will. The usual explanation, however, is a delusion or hallucination, or suicidal intention. Delusions accounting for refusal of food are of many kinds, and only a few examples need be cited. These are the delusions that the patient has no stomach, that his food is poisoned, or that he has no money to pay for his food. He may be under the hallucination that God's voice commands him to refuse food, or he may, of determined suicidal purpose, refuse food in order that he may die. One lady refused food, being under the delusion that she was in heaven and did not require food. In all cases persuasive means should first be tried, for, as already indicated, the digestive result is greater where the patient chews and swallows the food himself than where it is injected directly into the stomach.

The result on the gastric secretion of using the oral or nasal tubes for forced alimentation is to evade the operation

of a physiological process, which is thus described by Lauder Brunton : ' The effects of mastication are not limited to the changes produced by it in the food within the buccal cavity ; the taste of savoury meat, the rolling of a sweet morsel under the tongue, and the movements of mastication, exert an influence upon the stomach and upon the brain. In a case of gastric fistula, where the œsophagus was occluded, Richet noticed that the mastication of food induced secretion of gastric juice, although nothing could pass from the mouth into the stomach on account of the obstruction of the gullet.' At a later stage when food enters the stomach the bile and pancreatic secretions are called forth in anticipation of the exercise of their respective functions. The loss of natural stimuli is therefore a serious objection to artificial feeding, and the depressed condition of the reflex functions, which was so manifest in a series of experimental cases which I studied some years ago, proved strongly the necessity for natural rather than artificial feeding. I had striking clinical proof of this also, in the feeding of three patients who had their food injected four times a day for seven weeks, and who steadily lost weight, although the struggling was almost *nil*. Various dietetic, therapeutic, stimulant and digestive combinations had been tried, the cases being of the most asthenic, unpromising kind. The secretions were altered or arrested, the mucous lining of the throat relaxed and irresponsive, or red, irritable, and glutinous. I tried one egg-custard with excess of milk, two egg-custards with less milk, custards with brandy and custards with whisky, beef-tea thickened with potato, Benger's liquor pepticus and liquor pancreaticus, Carnrick's cod-liver-oil emulsion, calomel, acid, and nux vomica, bismuth, and washing out the stomach with Condy or carbolic. The pump was laid aside at last, as I was in despair, and the nurses were instructed to spare neither time nor pains to tempt and encourage self-feeding with appetizing and dainty morsels frequently repeated. The sum total of daily ingesta became thus a mere fraction of that daily injected for seven weeks ; but the result was marvellous and gratifying after a few weeks, and in endeavouring to account for it, I remembered

the statement of Lauder Brunton and the observations of Richet.

The explanation of the change is quite apart from the absence of any physical or moral effect of the stomach-tube, which in my practice is very immaterial, as after a very considerable experience and study of the *modus operandi*, the time occupied, from the moment when the patient is placed in position to the moment when the tube is removed and the gag withdrawn, is forty seconds at the outside. I have fed in this way several thousand times, and have frequently timed the operation. It is the least exhausting feeding process I know of, and is so rapid that ejection of the food is rarely effected. It must be understood, however, that, for the physiological and clinical reasons already stated, I discourage it, if it can possibly be avoided, where digestion is seriously impaired.

If forced feeding is inevitable, three methods are open to us : (1) by the nasal tube, (2) by the œsophageal tube, or (3) by rectal injection. The nasal tube is preferred by some because of the difficulty at times of getting the jaws parted where the patient has a complete set of good teeth, but in thickened conditions of the mucous membrane of the nares, or where the passages are narrowed or twisted, the insertion of the tube may be attended by more or less hæmorrhage, and the act of respiration, together with the chances of the tube bending forwards from the pharyngeal wall, may send it into the mouth. In using it, one is very much in the dark as to whereabouts the inner end of the tube really is when a considerable length of it has disappeared from view. I have rarely met with a case where feeding by œsophageal tube was impossible, and the risks are infinitesimal. A Ferguson gag is the best to use if there is any gap between the jaws due to loss of teeth, and where there is no gap, and a difficulty exists in introducing the Ferguson gag, the old screw gag can first be introduced, and, when the jaws are slightly separated, the Ferguson gag will do the rest. The advantages of the Ferguson gag are speed and good leverage. A soft tube is what is usually employed, and the only difficulty likely to be encountered in passing it is if the

passages are congested and the mucous secretion is thick and glutinous, or where the patient possesses the power of twisting the tube back into the mouth, and some are very clever in wrestling with it and ejecting it. A little patience will usually be attended with success. The food may be injected by means of an ordinary stomach-pump, or by means of a receptacle placed above the level of the head such as is used if washing out the stomach is resorted to. For rectal injection the ordinary enema syringe is all that is required. The food prescribed in all such cases is necessarily of a liquid character, and the favourite custom is to give milk-and-eggs, one or two eggs being beat up with three-quarters of a pint of milk. To this may be added finely-grated biscuit so as to furnish a complete physiological diet, and it may be alternated with injections of thickened beef-tea or soup. The best position to put the patient in, preliminary to artificial feeding, is between the legs of a man sitting in a chair, the arms of the patient being wound round the man's legs, and held each by an attendant. If he is very obstreperous, one or two more attendants may be required. This forced alimentation should not occupy more than one minute if the tube is easily introduced, and certainly not more than two or three minutes at most. The diet of the insane should, as a general rule, be of a non-stimulating character, except when there is possible exhaustion and a tendency to collapse. Clouston believes largely in milk and egg custards, beef-tea, soups, and fattening diet generally, and his practice in this respect is generally approved by other authorities. If anything, his fattening diet is sometimes too strong for the average digestion, and the proportion of eggs which he recommends is too much.

In a series of experimental researches which I made some years ago on the diet of the insane, I found that the proportion of eggs to milk which was most easily digested and was attended by the greatest increase in weight was one egg to seven ounces of milk, and that where the proportion of eggs was greater, digestion was unable to cope with it, and a loss of weight ensued. It was found also that rum in conjunction with these liquid custards was better than either whisky

or brandy, brandy being the least stimulating and nutritive of the three. In young patients, in patients who masturbate, and in acute cases generally, the diet should not be unduly stimulating, albuminous food should be restricted, milk, farinaceous food and fish should occupy a conspicuous place, and beef-tea, because of its mild stimulation and its action on the kidney and bowels, should frequently be administered. In some cases, oxalates are freely distributed in the urine, notably in melancholics and masturbators, and vegetable diet and fruits should for them be restricted. In old cases, and in all whose bodily health and vigour is below par, stimulating diet of a digestible kind, and even stimulants, may be indicated.

Exercise.—Muscular activity is an essential condition of the successful treatment of recent and acute cases. The excited patient cannot sit still. There is muscular unrest all the time, and this of itself gives us an indication that an increase of muscular activities will relieve the mental tension and direct a safe outlet in a physiological direction. The melancholic is often silent, idle, listless, and his muscular energy is at a low ebb. His self-absorption paralyzes all his energies, and muscular relief is the very best thing for him. In both these cases the muscular work done should be appreciable. In the melancholic mere automatic exercise does not prevent his following the morbid train of thought. In the acute case, it does not sufficiently relieve the mental tension, and the more active the work in the latter case, and the more engrossing in the former, the better for the patient. The employment of the insane, no matter if its intrinsic value is *nil*, is one of the best means of treatment which has yet been discovered. As a rule, it is more easy to find employment for men than for women, especially in farm and garden work; but for women, kitchen, laundry, and house work are much better than sewing or knitting, because the employment is more active and more diverting. Where the patient is well employed, sleep is more easily obtained, the appetite is stimulated, digestion is more perfect, and the restoration of the patient is more likely to be ensured.

Sleep.—In the progress of an acute case with sleepless

nights as well as days, exhaustion will ultimately supervene, and probably death ensue, if sleep is not secured. As already stated, active muscular exercise tends to favour sleep; the patient should live in the open air as much as possible, and while there is any hope of recovery, narcotic drugs should be sparingly resorted to. I have known a case of acute excitement, which tried, exhausted, and disheartened the attendants after weeks of continuous strain, procure his first sound refreshing sleep after a walk of twelve miles, and a not too copious supper of oatmeal porridge afterwards. In some cases a tepid bath favours sleep; in some a hot bath has this result. If the head is hot, apply cold cloths to the head, and for other indications attend to the general directions given in the third chapter of this book. Where the case is getting more serious, sulphonal may be employed, a hypodermic injection of hypobromate of hyoscine, or some other of the drugs or combinations already mentioned, according to individual requirements. There should be the most perfect quiet in and around the patient's bedroom, because in many acute cases sensation is excited by the very slightest stimulus, and the faintest creaking of a hinge, or rasping of a lock, or noise of a footstep, is sufficient to rouse again into wild activity the excitement of a patient just dropping off to sleep. In melancholic cases, narcotic drugs may do less harm unless pushed continuously; but their effect on the *primæ viæ* and secretions must be carefully considered, and the risk of engendering a morbid craving must not be overlooked. For reduced and melancholic cases porter or beer are often very serviceable, and, with something solid at bedtime, often produce a soothing effect, and may promote sleep.

Bowels and Urine.—Attention has already been directed to the bowels, and it may seem as if too much were being said on the subject. It is only necessary now to add that there may be a difficulty in getting the patient to take laxative medicine. He may object to castor-oil, to salts, to pills or powders, or he may absolutely refuse them. In some cases regular attention by daily enemata prevents the patient soiling his clothes or passing his urine and fæces in bed. This care is most necessary in old and feeble cases, and it is

most useful in assisting in the prevention of bed-sores. For the patients who require a sharp purge, and who absolutely refuse medicine of any kind and resist enemata, it will be found that a drop or two of fresh croton-oil on a piece of lump sugar dropped into tea, or some other liquid, may be taken without suspicion, and you may be amused but not surprised, though the patient is next day, when he tells you that he has had a bad attack of diarrhœa. If he refuses food as well as medicine, the medicine will require to be introduced with milk or custard by the stomach-tube. Only less important than attention to the bowels is the observation of the state of the kidneys and bladder, and the condition of the urine. I have known a patient die of uræmic poisoning because his bladder was distended for days without any suspicion of the true facts of the case, although he had not passed a single drop of urine. It must therefore be emphasized again that insane patients differ clinically from sane patients. Apart altogether from the mental symptoms which distract attention, there is often more or less suspension of nervous activity, a stuporose indifference to the calls of nature, and in medical inquiries nothing 'matter of course' should be taken for granted.

Setons and Blisters.—These are much less in vogue at the present time; but undoubtedly cases, if properly selected, derive benefit from this treatment. They are of no value in states of acute excitement, and great harm is done by their application in weak anæmic states. Their success is most assured with cases of anergic stupor, and especially that form that follows acute mania, and threatens to become chronic. I prefer to use blistering fluid applied lightly, and repeated from time to time so as to keep up counter-irritation for a considerable time. A part of the head may be shaved at one time, another part later, and so on till the whole scalp and nape of neck have been gone over.

Bed-sores.—It is very important in all cases of long confinement to bed in weak, emaciated patients, and in patients suffering from organic nervous disease, to be on the look-out for bed-sores. It is generally held that most bed-sores are preventable; but it is true that some are absolutely unpreventable, because they are due to atrophic conditions.

They are simply local gangrenes, and may make their appearance in less than twenty-four hours, even where every precaution has been taken. It is, however, the duty of the nurse to see that the bedclothes are smooth, that there is no crumpling of the sheets, no crumbs in bed, that the patient is kept dry, and, if possible, that the bed is a spring mattress or a water-bed. If there is a difficulty in keeping the patient dry, it may be necessary to use a catheter regularly, or an indiarubber receptacle if the patient lies quietly in bed. A very useful prescription for patients who wet their beds, when the condition is probably muscular atony of the bladder, is 15 drops of liquid extract of ergot and 15 grains of borax three or four times a day. If it is to be long continued, nux vomica may be substituted for the ergot for a time.

Danger of Accidents.—Accidents are more common among the insane, and are due to falls, struggles, or homicidal and suicidal attempts, and also to the more fragile condition of the bones in some of the insane, notably paralytics and senile cases. In the case of old people, the bed should be on the floor, and, if possible, the floor of the room should be padded with straw mattresses, as these patients are very easily injured, and ecchymosis appears on the most trivial provocation.

The Insane Ear is a condition of the ear known as *hæmatoma auris*, which occasionally occurs in asylums, and consists in an effusion of blood, which is now believed to be the result of a degenerative process in the cartilage cells, and the giving way of new vessels of defective formation. Rupture is therefore very easy, and a very slight blow in such cases is sufficient to produce a large hæmorrhage, giving the ear a swollen appearance the shape of an egg, if a large portion of the organ is involved. This condition may arise without any external cause whatever, and is not confined to the insane, being found sometimes among athletes and prize-fighters. It used to be regarded as a feature of bad omen in cases of insanity; but there are many cases on record of recovery after its appearance. It is nevertheless a sign of grave import in some cases, and where the prognosis has been reserved, because of other grave symptoms, this new feature is usually conclusive. I have had cases of puerperal

insanity recover with it, and also cases of acute mania. When it first shows itself, the skin over the swelling has usually a glazed, bluish appearance, suggesting a blister, and the immediate application of liquor epispasticus, not too thickly painted, and occasionally repeated—every other day or every third day—will prevent the ear from being permanently deformed.

Menstruation.—In the case of female patients, inquiries regarding the menstrual flux should always be made. At this period, usually just before it, the mental disease often undergoes a change: it may be temporarily, or it may be critical and significant. Sometimes the patient is worse after or during the menstrual flow; but in any case it appears to have an influence on the current of the disease, and inquiry should always be made, especially if there is anything dubious about the case.

Rest in Bed.—It is sometimes found in asylums, and the same will probably be found in private practice, that certain patients are the better for a few days in bed now and again, especially patients of the more chronic class, and those particularly who are subject to recurrent attacks of excitement. They sometimes feel the attack coming on, or are in dread themselves of a recurrence, and I have often found such patients taking to bed voluntarily, and an attack become thus prevented, or, at any rate, reduced in severity.

Travelling.—Travelling is a favourite remedy often suggested by the friends of patients, or by the patients themselves, for the treatment of mental disease, especially at the outset of an attack. It is of no value in acute cases; in fact, it is attended with great risk. In the case of melancholics it is also attended with risk, but if careful supervision can be exercised, and the mental depression is of a mild, non-obtrusive form, there is more prospect of its doing good, especially if the tour projected is one full of interest and likely to distract the attention of the patient from morbid brooding. During convalescence travelling is often resorted to, and is very beneficial in promoting and establishing restoration, but every case should be judged on its merits, as too much travelling may be exciting, only a change of residence to another place being all that may be required.

Quite recently thyroid extract has been introduced in the treatment of insanity by Dr. Macphail, Derby, and Dr. Bruce, of Morningside. At first the new treatment appeared to be attended with most encouraging success, but it has not confirmed the expectations entertained of it. It is well known that intercurrent bodily diseases which are attended by much febrile disturbance often occasion a glimmering of mental brightness in the insane, and may even be followed by mental recovery. Thyroid in large doses induces an artificial constitutional disturbance, with rise of pulse and fever, and it is still held at Morningside that undoubted recoveries have been effected by this treatment. I have with my assistant colleagues tried it very thoroughly, and pushed its use almost to extremes, and while still hopeful that with other combinations some good results may be obtained, we all have to confess that, except in a case of myxœdema, there has not happened a case of recovery that can fairly be attributed to thyroid treatment.

Classification.—Classification, like definition, is a very unprofitable occupation, and many fruitless labours have been expended in trying to reduce the manifestations of insanity to a systematic arrangement, which explains everything and leaves out nothing. The oldest arrangement was that founded purely on symptoms, and originally we only had to deal with mania, melancholia, and dementia. This obviously was not enough, and various other classifications have been adopted and more or less rejected. While much good work has of late years been done in elucidating the clinical features of mental disease, in analyzing groups which appear to have a common origin and character, and—as the result of analysis—in resolving these groups into lesser, more distinct, and separable sub-groups, the time is not ripe for a classification that will meet every requirement, and give an intelligible bird's-eye view of the whole. It is therefore proposed here to take up first of all the old symptomatological group, and from that starting-point proceed to differentiate further, so that we may regard insanity from several points of view, and have more concrete ideas of the subject. No apology will here be made for arranging together what is believed to

be the best of examples of all the classifications which have hitherto appeared. What is aimed at is the labelling of every case which comes before you with a name, albeit the name may not be quite so appropriate as an exacting scientific nomenclature would demand. It is quite true that the first group, the symptomatological, if sufficiently divided and subdivided, will embrace all forms of insanity, but the elaboration of this implies the addition of qualifying terms which introduce new phases in the description of the disease, and multiply its features and relationships. The term 'mania' may be qualified by the word 'puerperal,' which lifts it out of a general category and gives a specific distinction to the case, and the same may be said of epileptic mania and other forms of insanity. In spite of all the objections that have been alleged against the terminology of mental disease which has obtained for several years, there can be no doubt of its helpfulness, if not carried too far, and if founded on facts which enable us clearly to distinguish one case from another. A wide grasp of symptomatological types is, of course, of fundamental importance, and if we can differentiate any of them, *e.g.*, chronic delusional insanity of systematic evolution, so clearly as to make respiration easy and undoubted without trenching on any other classification, so much the simpler and better. The arrangement which will be adopted in the following pages has been found intelligible and useful, and it takes in nearly all the cases that are likely to be met with. The exception may be made that insanity appears, apart from causes and conditions which denote a particular type, and at ages between the critical epochs of life, which cannot be referred to any type but the symptomatological, which becomes then the refuse-heap of all the other types, because its meshes are wide enough to receive what they reject. But if this all-embracing group can give it a place as a definite, orderly, and distinguishable array of symptoms, and finally fix its position in the classification, there is no need for further refinement. Thus chronic delusional insanity of systematic evolution, epileptic insanity, and general paralysis are found in the symptomatological group, their first and final resting-place.

CHAPTER VII.

MELANCHOLIA—KATATONIA—CATALEPSY.

Many of the so-called insane are only partially affected—Alterations of consciousness—Classification of forms according to symptoms: Melancholia, mania, dementia, stupor—Melancholia, varieties: simple, neuralgic, acute, delusional, hypochondriacal, resistive, silent, chronic, senile, melancholia with stupor—Katatonia—Catalepsy—Ætiology—Diagnosis—Prognosis—Treatment—Clinical Illustrations.

THE more intimately we become acquainted with the various phases of insanity, the more we will see for ourselves that they are in a great many cases phases of minds which in large measure still retain their original attributes and acquirements of education and experience. Many of the insane are not so very different from ourselves, after all. The first case you meet may be a mason who is subject to delusions of persecution, who believes that the thoughts of his mind are read by others, and that he is restrained in his movements by unseen agencies. Discuss with him the plan and construction of a house, and he will discourse with the intelligence which comes from experience regarding the workmanship, the plumb of a wall, the dressing of the stone, and the stability of the structure. He is still able to engage in general conversation apart from his delusions, and his memory and knowledge in certain directions is probably better than your own. We have therefore to regard insanity —always providing for exceptions, however — as being a partial occlusion or perversion of one or more of the mental faculties, and a limitation of the field of consciousness with or without intensity in certain directions.

If we select at random any ten patients in an asylum, we will note that they are not all equally responsive, nor do they appear to be equally conscious and alive to their environ-

ment. In a less degree we find this difference outside of asylums. Some men observe everything, others are more in a state of abstraction and unconsciousness of outward affairs. Consciousness of self also varies, and especially among the insane you will find many differences in this respect. At one extreme is the melancholic or the hypochondriac, at the other the dement, and flitting between is the maniac, who may be self-conscious in one sense, and not in another. The insane phases of character and conduct are in proportion to the degree of occlusion of consciousness in any direction, or the degree of its vividness in another.

Consciousness may be perverted, as when a man's identity of himself, his friends and surroundings, is altered, as in acute mania. We do not say it is lost, for he has still consciousness of a kind, though he is carried away from the realism of his former everyday life, and lives among imaginations, shadowy myths as we regard them, and is oblivious to the calls of nature and the solicitations of those around him. He may be sufficiently conscious to recognise some by name, and not others, who are perhaps not so well known, to thread his way through the house and find something to eat, or to walk over a bridge instead of trying to fly over it. Not long ago I was consulted regarding a gentleman who was able to answer questions correctly, recognised his brother who was with him, and followed his brother's guidance from cab to station, into the train, and out of it, and then, being taken by the hand at an unaccustomed station, turned round suddenly, and fired a torrent of abuse on this same brother, whom he regarded as a stranger, and with whom he refused to go. A few minutes after he looked as if coming out of a dream, and said, 'Jack, that was funny! do you know I didn't recognise you as my brother just now.'

In considering insanity of different kinds, we will do well to settle this question: How far is the patient conscious of his real environment and his real self? and the result will determine whether we should call the case melancholia, mania, dementia, or stupor. In melancholia consciousness is not lost; in regard to self it is intensified, in regard to the environ-

ment it may be limited or it may not. In mania it may be merely restricted, but in acute mania it is altered, the man's identity and the identity of his surroundings being more or less lost, and insane imaginations having taken their place. In dementia it is diminished, and in stupor more or less suspended. I have just indicated the four clinical groups of the symptomatic classification: melancholia, mania, dementia and stupor. Melancholia and mania in their typical characters are two extremes, the one the extreme pole of the other. In melancholia the prevailing note is a wail; in mania it is noisy, often violent excitement, and may be attended with exaltation, and always without grief.

Melancholia is sometimes described as a subjective state. As its name implies, it is a state of depressed painful feeling. The patient is intensely self-conscious, introspective, and harrows his feelings with an insane persistency that suggests in some cases a selfish gratification. The origin of the word melancholy is μελας χολη, 'black bile,' and knowing how much the state of the liver influences the consciousness of the sane, this derivation is not surprising. Melancholia is a morbid state beyond the melancholy or depression which are more or less common in everyday life. Its duration and intensity vary even within normal limits, but it may become so pronounced without intellectual distortion as to come within the category of insanity, and it is then regarded as the simplest, most uncomplicated form, and known as (1) *Simple Melancholia*. Patients of this class are sometimes voluntary boarders in asylums. They are purely subjective, their minds in all other respects are normal. There is no morbid weariness of life, no suicidal promptings, no insane thoughts or actions, and the patient cannot be certified insane on the strength of this symptom alone, for a document cannot convey to a judicial authority the whole truth, as would a medical examination. George Eliot suffered at times acutely from headache and mental depression, and her emotional existence was clouded at such times; but her great intellectual gifts, though suspended in their activities under the paralyzing spell of nervous agony and emotional depression, were only temporarily in abeyance. Such recurrent attacks, how-

ever, were but a remove from that state of mind which raises the question, Is life worth living? and a condition which may be called (2) *neuralgic or congestive melancholia*, which is a distinct form of depression, and associated with a highly nervous, sensitive, neuralgic organization, and a longing for relief so intense as to promote the idea of suicide. I have observed this form in neurotic subjects sometimes as the result of influenza, and the neuralgic symptoms may be primary or periodic in the course of the disease. But I have also used the term 'congestive,' for *neuralgic* does not include all the varieties that may be included in this group. The essential point is that there is a direct physical cause, and we might quite properly use the term 'psycho-physical melancholia,' so as to embrace many kinds of causes. It may be contended that many causes of melancholia would come under this head which are more correctly grouped otherwise, *e.g.*, anæmia; but what I wish to emphasize is that we have a form of melancholia which has a distinct and immediate relation to physical causes — that neuralgia, cephalalgia, congestive brain conditions, may make life so intolerable from physical causes alone as to impel to suicide. In everyday experience we have sea-sickness, which makes its victims indifferent to life, and patients who suffer so much that, while not impelled to suicide, they would willingly submit to narcotic poisoning, just as the man who has not courage to pull his own loose aching tooth, but willingly submits to the dentist.

(3) *Acute Melancholia* is the species of this group which gives most evidence of its presence. The subjective side has now an obverse, the objective. While melancholia is purely subjective, the patient is negative so far as any audible sign is concerned. When he begins to make known his grief, we say he is objective—he puts himself *en évidence*. You have now to look behind the objective state that you may understand wherefrom it springs. Is it the mere outpouring in the channels of expression by cry and speech, by tone and gesture, by facial expression, attitude and muscular unrest of the pent-up well of bitterness and grief which cannot be stemmed back, cannot be restrained;

or is it due to incessant torture arising from delusions of a grief-stirring character? If the latter, then is the intellect involved as well as the feelings and emotions. There is a form known as delusional melancholia, but that is quite distinct from the acute form, which also has a basis of delusions, and often hallucinations, especially of hearing and of an accusing or threatening character. It may be so acute as to cloud over the consciousness of all but immediate self, there is no interest in life or its affairs, the patient admits her neglect of duties and responsibilities, but in the same breath comes the wail: 'I cannot help myself. I am undone, a mockery and a shame to myself and others.' Under the influence of this dreadful depression, she may refuse food, or show little inclination for it, even when there is no morbid prompting of a delusional state. She may say that she has no stomach, that her food is not paid for, that it contains poison, that she must die of starvation, that she must be sacrificed to save her children; but whatever the reason, refusal of food is a frequent symptom. The excitement is evinced usually in restless walking to and fro, in muscular agitation, wringing of the hands, rhythmic swaying of the body, shaking of the head, attitudes of supplication to end her life, to take her out of this misery, loud lamentations, interrogatories, 'Am I to be killed?' 'Are my children dead?' 'Is my husband sacrificed for me?' The acute melancholic is sleepless, unable to sit quiet for a moment, to fix his thoughts on anything beyond his own miserable feelings and ideas. The melancholic is usually timid, afraid of many things, concerned and anxious; and except in acute or impulsive states, suicidal attempts are often half-hearted. The attempt may succeed, however, from an accession of impulsive energy when least expected, and it is well to be always on guard with such cases, especially silent ones who are given to hiding themselves. The patient may have suggestions and impulses not only to destroy herself, but others as well, *e.g.*, herself and her own family. There are diurnal variations in the severity of the symptoms, which are more acute in the morning and forenoon as a rule; but they may be stimulated into fresh intensity by injudicious remarks or mistaken sympathy.

We cannot resist the impression that the noisy acute melancholic is often more really selfish and engrossing than silent cases, which often suffer as real misery quietly, and never speak of it. The silent battles with it in her own soul; the noisy so-called acute case appeals to every passer-by for help and sympathy. Given two men or women seized with the same delusion, acting on each with equal intensity, the outlet in each and the objective phenomena are not necessarily the same. The acute is perhaps only acute in its expression, and not always as regards the mental pain itself.

(4) *Delusional Melancholia* has been so named from the fact that the under-current of melancholia may appear subacute, while delusions are prominent and the distinctive feature of the disease. There may be little outward expression, and no uncontrollable agitation, and the patient may be able to employ herself. The delusions are, of course, of melancholic type, and as a rule, however they may vary in their expression, the essential character is almost the same, and they are often fixed for months and years. This form of melancholia has exacerbations of uncontrollable excitement sometimes, when it partakes for a time of the acute form. Clouston observes that in this form the delusion stands out so that the friends of the patient call it the cause of his disease, and say that if he could get rid of it he would be all right. It is with such cases especially that one is tempted to argue, and yet how hopeless it is to do so, for there is the pathological condition behind it of which it is the unavoidable imperative expression.

(5) *Hypochondriacal Melancholia.* — This is akin to the preceding, but the delusions have reference to the health of the individual. Such patients often become a prey to the most torturing ideas regarding their viscera, usually the stomach or bowels. The mind centres morbidly round the one idea, and to some the act of defæcation is the primary function of their existence. I have known a most self-respecting fellow so carried away with joy because his bowels were relieved after an interval of three days, that he actually shouted it out to his medical attendant in the presence of

many strangers. He had been possessed with the idea that his bowels were permanently closed, and a day or two after the delusion took hold of him again. Such patients often have a sinking or burning feeling at the epigastrium, and a fulness or lightness in the head. The delusions are of many kinds, *e.g.*, that the patient has no stomach, that his heart has disappeared, that his brain is rotting, or his inside being burned out.

(6) *Resistive Melancholia.* — Clouston gives this a special place, but there is a tendency to multiply names according to symptoms, so that the varieties of melancholia in some text-books are legion. That a resistive character is well marked in some cases is true, but the associated symptoms are not always alike, for sometimes there is excitement, sometimes reticence, and even stupor. It matters not what you want such a patient to do, the spirit of obstinacy is strong. He will not voluntarily do anything for himself, will not initiate and carry on any occupation, however easy and trifling; but he will expend a great amount of energy in resistance, which well and voluntarily directed would have accomplished some good work.

(7) The silent melancholic who never speaks is not so sure of being noticed as her noisy sister. Her absolute negation does not attract notice except by contrast. Yet she should never be lightly regarded, for there is often here a hidden fire of resolution and insane purpose, and such are often the most methodical determined suicides, waiting and watching for their opportunity. Suicide, as already observed, may arise out of sudden impulse, a sudden accession of courage to do the deed, or it may be deliberately planned and unflinchingly executed. The silent melancholic may think acutely and feel intensely behind a veil of quiet, unobtrusive sorrow, which does not express itself so significantly as to suggest suicide. Of such cases always beware.

The physical symptoms may now be dealt with as they refer generally to all the foregoing, and do not necessarily apply to the forms afterwards to be described. As a rule, the bodily functions work at a slow pace, and with a lack of energy which affects nutrition. The melancholic is almost

invariably thin, poorly nourished, and the vegetative functions are much in need of stimulation. The tongue is usually furred, the appetite nil or impaired, the alimentary canal dry, and the digestive secretions reduced in quantity and vitality, so that dyspepsia and fœtor of breath are common. The bowels are confined, the skin dry, and the urine is of low specific gravity, and not increased, but rather diminished in quantity. The pulse is slow and small in volume, unless there is suppressed or acute excitement; the body heat is diminished, especially at the extremities, except when there is muscular agitation. Without going further, it may be added in a word that sluggish movement and restricted output is characteristic of all the functions.

(8 and 9) *Chronic Melancholia*, with which may be included *Senile Melancholia*, is the mechanical expression without the psychic equivalent. The expression becomes an automatic discharge; the mental pain has considerably lessened or disappeared. What would be thought of the mental distress of a chronic melancholic now verging on senility, who cries, 'Will you let me home? Will you let me home? there's no more beds; you're going to kill me!' and in a twinkling, without warning, trips you ignominiously where you stand, and the next moment with perfect unconcern says, 'Will you give me a chew of tobacco?' The chronic stage is reached only after several years, for mental deterioration does not occur so quickly as in mania. Many cases of senile melancholia are too demented to feel sorrow of a purely mental character. Their so-called melancholia is often the reflex expression of physical breakdown or discomfort, childish pettishness of old age, or a habit of grumbling which has grown upon them with advancing years. It is as much a melancholia as the cry of a hungry, sick, or spoiled child, and no more. They do not emaciate except as a result of senile atrophy, and the chronic melancholic, when leaving the more acute period behind him, gets fat and robust physically.

(10) *Melancholia with Stupor.*—This has been regarded by Baillarger and Régis as the most extreme degree of melancholic depression. In it a state of stupor prevails which

implies a suspension of movement, and it may be of volition, although this is not so certain. Indeed, of some cases it is evident that they are resistive melancholics when roused out of the stupor by attempts to feed them. That the suspension of motor activities betokens hyperacute melancholia is not an opinion that carries conviction on the face of it; but that a weak brain has succumbed without a struggle to a depressing cause, which would produce the mildest melancholia in another, is probably nearer the truth. In melancholia with stupor delusions are present. We have learned from patients who recovered that they are sometimes of a terrifying kind and paralyze as does a nightmare, and they may be regarded as somewhat of the nature of obsessions, predominant ideas, which the mind is unable to get rid of, and which control and inhibit all outward manifestations.

Melancholic stupor is more frequent among females, though men are not by any means exempt. It is particularly liable to occur during adolescence, among hereditary weaklings, and this of itself indicates instability of brain, and an easy prey to depressing influences. Many adolescents are subject to lapses into stupor after acute excitement, and a number lapse right away into prolonged or permanent stupor with only a brief prelude of melancholia. In the puerperal state primary or secondary stupor is often found, associated with melancholic consciousness. It is found also as a sequel of masturbation, and one such case under my care remained in this state for two years. The symptoms of melancholic stupor are all negatives. The most extreme case I ever knew lay like a log, perfectly limp, pale, and, except for the brightness of his eyes, to all appearance dead. His musculature was flaccid and unresisting, his joints loose, his movement nil, even his reflexes gone, and his sensibility impaired. He was fed artificially and passively, offering no resistance for two years, and yet was conscious all the time, as we afterwards learnt, and was able to relate from memory many of the events incidental to his long period of suspended animation. When he had made a partial recovery and gone home, I called on him for the purpose of eliciting, if possible, information regarding his previous mental state. He insisted

on being alone with me, and was very mysterious in his manner, and I had difficulty in overcoming his reticence. At last I learned that his state of torpor was due to a delusion which may be described as one of double identity. He was himself, and yet overborne by another higher and spiritual self which paralyzed him completely. He confessed to having been much addicted to masturbation in previous years.

Melancholia with stupor is therefore a condition in which movement is suspended; but consciousness is not lost, though it is characterized by depressing thoughts and inhibitions. The patient is more helpless than an infant, for the latter at least will suckle if it gets a chance. The calls of nature are not responded to; the patient has to be spoon-fed, and even then there is risk of choking. Often the stomach-tube has to be used. Digestion is feeble, sensibility and the reflexes generally are impaired, the musculature is weakened, and there is drooping of the head and shoulders. The circulation and respiration are enfeebled, and the extremities are cold. While there is no strained attention and observation, much is being observed without apparent effort, and the memory retains a good deal. Depressing delusions prevail, and have an inhibitory effect on nervous energy.

Such a patient with her food before her will take a long time—if she tries to feed herself—in carrying a spoon to her mouth. If you watch her at a distance, without appearing to observe, you may notice the feeble movements of the hand holding the spoon; sometimes it is lifted and falls away again, and this may be repeated several times. There seems to be a faint ebb and flow of nervous energy, an effort of will, but a very feeble one; and in the end the nurse lifts the spoon to the patient's mouth, and the food is slowly swallowed, never chewed; that would mean an expenditure of energy which is not in store. Another patient of the same class will resist only when roused up, but otherwise be negative and motionless. She may not hold a spoon in her hand, but will perhaps open her mouth, and, if she does not without pressure, may at least swallow if the food is placed inside it. There are various gradations in the depth of stupor, in the difficulty of rousing the patient, and the

amount of response which can be obtained. If you get any movement at all, it is the sitting-down movement, for the minimum of volition is required to execute it. It requires more volitional energy to rise than to sit, to raise the arm than to let it fall; the movement is positive in the one case, while, aided by the law of gravity, it is almost negative in the other.

In these cases there is undoubted anæmia, and frequently the catamenia are absent. With their bodily functions so imperfectly performed, and the amount of oxygen entering the blood so much below par, it is not surprising that they are often very unsatisfactory cases, and that tubercular and other affections of low inflammatory type find them an easy prey.

In relation to melancholic stupor may here be described *katatonia* and *catalepsy*.

The term 'katatonia' was introduced by Kahlbaum. It is doubtful if it can be separately distinguished from melancholic stupor on the one hand, or anergic stupor on the other. Typical cases have been described which pursued a definite course in stages as follows: melancholic depression, then maniacal or melancholic excitement, then the condition which gives a name to this variety of mental disease, rigid immobility, and lastly recovery or dementia. Now, it is to be observed that in not a few cases of melancholic stupor there is distinct passive resistance, an iron hardness of muscle, as, for example, in trying to raise the drooping head and neck, or to raise the arm which hangs idly by the side. But it has been sometimes observed that monotonous automatic movements occur from time to time—what are known as *stereotyped movements*. Other symptoms, such as mutism, refusal of food, or its opposite, excessive eating, excitement of theatrical, declamatory character, verbigeration, cyanosis, and salivation, have been described. While the researches of Kahlbaum merit respectful attention, and it may yet be possible to differentiate katatonia and enucleate it from other forms of mental disorder, we are at present unable to do more than refer to it as in many respects symptomatically near akin to melancholic stupor.

Catalepsy.—The patient cannot move his limbs; but their position can be altered by another person, and so remain. Ask the patient to hold out his arm; there is no response. Draw it forward yourself, and there it remains till you place it back again. The movements may be called dummy movements. This condition is often intermittent, and is found in many cases of stupor from time to time, including melancholic, anergic, epileptic, and the stupor of masturbation.

Ætiology.

There is no specific cause which can be said to produce melancholia and nothing else. In the general remarks on causes, all that need be said has been already told; yet we may sum up now in one sentence: depressing conditions, moral, mental, physical, may have a depressing effect on the emotions; but some people are hereditarily prone to fly like a shuttlecock from grave to gay and back again, so that it is difficult to say how depressing causes will affect them.

Differential Diagnosis.

Regarding this there is little to be said. The essential feature in melancholia is mental distress, a distinct mental anguish with or without any qualifying conditions of excitement, delusions, hypochondria. The depression may not be acute; it may be so slight as to raise the question of whether you have to do with melancholia, or what has hitherto been called the mania of suspicion, unseen agency or persecution, which is not mania, neither is it a melancholia, because the state of mental feeling is consistent with a fairly contented mental existence.

Prognosis.

The prognosis of simple melancholia is good, and also of acute melancholia; that of the other forms is only less favourable, but it may be regarded as, next to mania, the most hopeful of all forms of insanity. The average duration of the disease before recovery is manifested is greater than in mania. A returning sense of humour, evidence that the patient's mind is being actively (*not passively*)

interested in matters outside herself, a disposition to work, interest in personal appearance, gain of weight, return of catamenia, are all good signs.

Treatment.

The treatment of melancholia is to be regulated in accordance with two principles: *first*, that there may be causes or physical conditions to remove; *second*, that the patient must be drawn, and if need be forced, out of himself. If you regard melancholia as introspective selfishness, you will see the necessity for driving the man out of himself, and just as bodily pain requires a counter-irritant, the mental pain must be relieved by external application, even if you have to make the melancholic angry, which it is possible to do, and an angry melancholic is the most promising of all. Such cases do best with asylum treatment. I have in view at the present moment three cases of melancholia, all treated for months in private lodgings, having their own attendants, and as much individualizing treatment as it was possible to give them. Individualizing treatment is apt to foster the morbid introspection and magnify the ego. They were well fed, medically studied—too much so, perhaps—built up physically; but they did not improve, for their selfish introspection was not uprooted, but rather fostered. They were all sent to asylums, and in a few months recovered. Why? Because there is less room for emotional self-indulgence in asylums. The melancholic is less noticed, less made of, subjected to discipline, made to do things whether he will or not, roused out of himself, stirred up to take notice of objects and aims outside himself, and made to work. The treatment, then, is to be regulated (1) by individual necessity of constitution and bodily health, by attention to hygienic laws; (2) by insisting on mental occupation outside himself, and particularly by giving him physical work that will force him to concentrate thought away from self; (3) by attention to his sleeping habits, and by guarding against suicide. Melancholic depression is usually most acute in the early morning, and suicidal impulses are then most common. The melan-

cholic is usually worst in the morning, and best in the evening. It is not infrequently the opposite in acute mania.

In many cases there is refusal of food, and great pains and patience must be exercised with such cases, and a search must be made for the cause, whether mental or physical, and any indications for treatment that may be thus discovered must be followed. Tonics are often beneficial. Sleep must be restored if it is wanting, and it is well not to resort to drugs if they can possibly be done without, and if a drug is necessary use bromide, as the least harmful first, especially in neuralgic cases.

Attention to the bowels is also of very great importance. Whether it be a symptom or a cause, constipation helps to produce a vicious circle of hepato-intestinal disorder, and must be fought against. You will note that some melancholics are of distinctly bilious temperament, and in such cases a hepatic stimulant is often an indication of great importance. The mental relief, the melting away of the cloud of depression, after a free discharge of bile is an experience in sane life which speaks eloquently regarding the relations of the liver and the mind.

It may be well to prescribe a diet scale for your patient, suited to his particular needs, and you will be well advised in excluding from it anything which may favour the introduction of oxalates into the system, for many patients of melancholic temperament are susceptible to their influence, which increases the depression. It is assumed that the heart and lungs have been examined, and it is of importance, for diseases of these organs may have a distinct causal relation to the melancholic state, and their treatment may beneficially affect it.

In the treatment of the melancholia with stupor, the chief point is to individualize with unwearying diligence, rouse him, make him walk, rub him that his circulation may be kept up. Keep him always warm, and give him his food finely triturated, and as far as possible predigested. Galvanism or the interrupted current may do good. They will have more or less a rousing effect, and if it is very temporary and disheartening, try again, for stupor cases are

often very hopeful cases if treated hopefully and heartily. Blistering the head is sometimes of service, for it appears to rouse the patient, and promotes a stimulation of the nervous system. It should be gentle and frequently repeated. If too heroic and exciting more harm than good may be done. It will utterly fail in some cases, and is indicated rather in the stout lethargic cases.

Clinical Illustrations.

Simple Melancholia, almost negative in character, with exaggerated feelings, *e.g.*, of being walled in.

Mrs. Isabella D., æt. 47.—History: husband and self were caretakers of hospital abroad. Situation lost owing to husband's drinking habits—poverty and hard times followed, and, though due to this, not till seven months after did depression come on, and then quite suddenly. She had a peculiar sensation in the head (not pain), and jumping out of bed cried, 'What's that?' and thereafter was quite uninterested in what was going on around her. Since then (October, 1893) she remarked, 'I had no feeling.' This, by the way, is a common expression with melancholics; but it merely means that she had no interests, that nothing happening around could make any impression on her—her senses of pain, touch, etc., were quite acute. She had the feeling of being hemmed in as if by walls, and so also on board ship when coming home. She was perfectly conscious that there were no real walls, and that the feeling was there without any real external cause. When convalescent, she said, 'I have been quite conscious of what was going on during all this time, and have still a most distinct recollection of many things in which, however, I had absolutely no interest at the time.' This patient made an excellent recovery after being melancholic for two years.

Neuralgic or Congestive Melancholia (psycho-physical).—Four illustrations are given:

1. Jane C.—Neuralgia of face, very much run down; cut throat, and jumped out of window; restless, despondent, wants to be coddled. Under bromide, good diet, and stimulants she recovered.

2. James O.—Influenza; severe facial neuralgia followed; very thin and cadaverous, miserable and discontented. Under bromide, good diet, and stimulants he recovered.

3. John B.—Large, stout, full-blooded man; felt a sense of fulness and oppression so unbearable that he cut his throat to relieve it. Instinctively Nature seemed to suggest this remedy, so he said afterwards when he recovered; and, beyond getting relief in this way, he said he had no intention of committing suicide. In this case it was found that the bowels were much constipated, and a sharp purge, which had to be repeated, produced distinct and immediate relief mentally and physically.

4. John B. junr. — A young, hard-working, ambitious engineer, who studied night after night till the small hours; a most impulsive suicide. He had to be held by an attendant all the time when not in the padded room; heard voices impelling him to suicide by whatever means possible; he cut his throat with broken glass, and dashed through windows with sudden impetuosity. Was known to be very costive; enemata daily, with little effect. Ischial abscess appeared, and in order to treat it successfully it was resolved to thoroughly clear out the bowels, and then rest them for several days. The mental condition still the same. After several strong purgatives were given, assisted by enemata, the bowels discharged very large quantities of most foul-smelling fæces. Head much relieved; hallucinations disappeared, and also suicidal impulse. Recovered mentally before ischial abscess had quite healed. On recovery he said that the tension in his head was so unbearable, apart altogether from the hallucinations, that life was not worth living.

Acute Melancholia (from a clinical lecture).

Mrs. J. T., æt. 56.—Second attack; is a very striking example. She is hollow-eyed, with dark rings around, and all the appearance of intense wakefulness, almost amounting to delirium; but, like most cases of acute melancholia, her excited speech is fairly coherent. Remember that she is not always so acutely excited as at the present moment; she has quiet and noisy intervals, but as a rule she is as you see her now. She wrings her hands, wails loudly, and anon

shrieks. She tears her hair, and the mental thread of her excitement is revealed in the expressions constantly repeated: 'I have lost my Saviour—I have lost my Saviour! Condemned to the bottomless pit — the bottomless pit!' Observe the furious state of unrest, an aggressive, fighting, struggling, and anon despairing expression. She requires forced feeding. She is most impulsive, and requires to be carefully watched; the attention of the nurses must never be allowed to stray from watching. She makes sudden and violent rushes, and tried to put her head in the fire; butted her head against the door; wanted to get to the river Clyde; tried when at home to get hold of a razor; quivers with excitement at times, and every now and again there is a fresh climax. Hallucinations of sight and hearing. This patient was treated with Potas. Brom. and Tinct. Cannabis Indica, and recovered.

Delusional Melancholia (clinical lecture).

Three cases only will be shown you, for this special form of melancholia may be regarded as the connecting-link between melancholia proper and partial insanity, to be treated of in the next chapter. It is difficult to locate definitely some cases in either group, for in melancholia the integrity of the reasoning faculty, apart from delusions, is often very slightly affected. Many melancholics are exceedingly useful members of society.

B. G. H., æt. 67.—This lady is the miserable prey of one fundamental delusion—that the devil has taken possession of her and controls her, and that he impels her to drown herself. The devil's suggestions are thoughts which tick so loudly in her brain that she can almost believe them to be the utterance of a voice within her head. She is rather restless, nervous, and suffers from palpitation. Her bodily condition is much impaired, but it will probably improve, as there are indications for hopeful treatment, and she will likely recover.

J. B. M., æt. 50.—This patient is depressed, and at the same time bewildered. She cannot understand exactly where she is; but she has the feeling that everything is changed—trees, animals, everything in her environment;

that she is a wheel continually going round. She mopes about doing nothing but bemoaning this strange condition whereby she is no longer her former self.

Richard Mac.—This young man is twenty-four; has been insane a year, and the cause is said to be probably masturbation. We have no reason to think so since he came here nine months ago. He is not deeply depressed. He tells us a very sad story which he believes to be true; but his face rather belies the truth of it, for though he is not bright and cheerful, melancholy is not clearly imprinted there.

Good-morning, Dick.

A. Look here, Clark, what are you going to do with those murderers? They've been discharging electricity through my lungs.

Q. Who are the murderers?

A. There's Blair; you must have him tried for it.

Q. But I thought you told me yesterday that Colville was the man?

A. Yes, Colville and Blair, and the Americans; they've committed seventy murders between them.

This is a case of delusional melancholia nearly allied to what used to be called the monomania of persecution and unseen agency. The delusions never vary, they are perfectly consistent from month to month; but except that this man is rarely seen to smile, that life is for him a very serious matter, the melancholia is only slightly in evidence, and it does not prevent him engaging in useful employment every day, nor distract his mind or paralyze his energies. By some this case would be regarded as monomania of persecution rather than delusional melancholia, and I have introduced it here with a point of interrogation after the term 'delusional melancholia.'

Hypochondriacal Melancholia (clinical lecture).

Mary Mac., æt. 64.—This is a case of mild depression so far as we can judge outwardly, and the delusional character is consistently the same. She believes she is the subject of a loathsome disease, and has infected many people with it. She does not attribute this disease to any malign influence, to persecution, or other causes. She reproaches herself

alone. She has for years complained of pain in the right side, and from this has arisen the idea, from a morbid suggestion of her own rottenness, that she is the subject of a loathsome disease. She is improving in physique, gaining weight, sleeping better, and this, taken together with the fact that there is a hereditary history in her case, inclines us to believe that she will recover. After-history: she fattened, lost her delusion, and with it the melancholy, and was discharged recovered.

Matthew A., æt. 59.—This man's expression is now stereotyped after years of melancholy. He has distressing sensations of a burning character in the epigastrium, and he believes that he has no stomach, that it has been burned out of him, that his bowels have been destroyed, and that defæcation is impossible. Thus he explains the constipation for which we are treating him.

James McA., æt. 57.—Here comes a man who is always complaining, always grumbling. He says he doesn't want food, but when it is put before him he sometimes eats to gluttonous excess. He doesn't want to work, and if he is kept in the house he is miserable and groans aloud. He is always wanting medical examination—'to be sounded.'

Q. How are you?

A. I'm no very weel. There's plenty of doctors here.

Q. Well, what's the matter? Tell these young doctors.

A. Well, you see, I want medicine; I canna eat. My inside's closed up. My bowels is costive; my throat's choked.

This man, despite these delusions, and as if to prove that they are delusions, eats well and heartily, but sometimes overdoes it, and then, of course, has reason to complain.

Chronic Melancholia.—Two cases will be here contrasted.

A. W., æt. 47.—This man has been shrouded more or less deeply in melancholy for many years. The melancholy is genuine. You have only to look at him to see this, for his attitude and expression are silent but emphatic witnesses of his state.

Q. Well, sir, how are you?

A. Just the same.

Q. Were you ever of a happy disposition ?

A. Not very, as far back as I remember.

Q. As a boy, did you ever play with other boys ?

A. Oh yes.

Q. Can you tell me when you became distinctly melancholy ?

A. About the age of eighteen.

Q. Have you ever been so miserable as to feel that life wasn't worth living ?

A. No.

Q. Was your health good ?

A. Yes.

Q. Did you always take your food ?

A. Yes.

It is very probable that the patient's statement as regards his health may require a qualification.

Q. Were you inclined to be costive ?

A. Yes, all my days.

Q. Did you ever have bilious attacks ?

A. Yes, often.

Q. Did you ever throw up bile ?

A. Yes ; after taking whisky.

Q. Did you drink whisky often ?

A. No, only at fair time and New Year.

If you look again at this man, you will observe the sallow, bilious appearance which is frequently the complexion of melancholia. This man has very little initiative ; he sits silent, passive, listless, all day, and whatever he does is done without any heart or soul in it. His case is one of simple melancholia become chronic and confirmed after many years.

Thomas Mac., æt. 67.—The next case wears an expression of deep melancholia ; he is less silent than the preceding, and, as he proceeds to speak with us, you will note his childish character, and the evident skin-deep character of his melancholic wailing and lamentation.

Q. Well, Mac ?

A. Is my son here ? I dinna see my son. They told me he was coming to see me. I dinna see him. Where is he ? They said he was coming to see me. I dinna see my son.

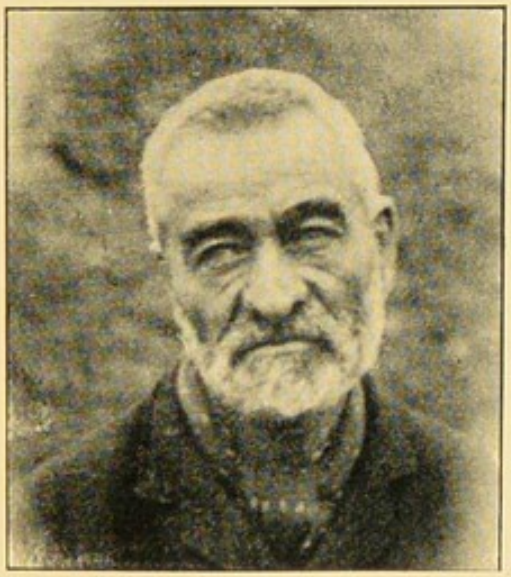
Plate I.—MELANCHOLIA.



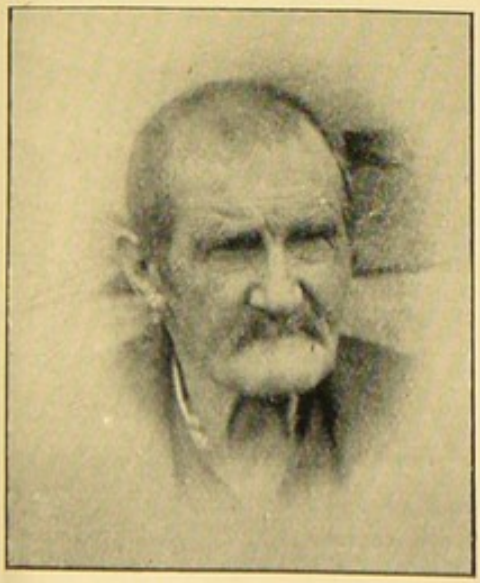
SILENT MELANCHOLIA.



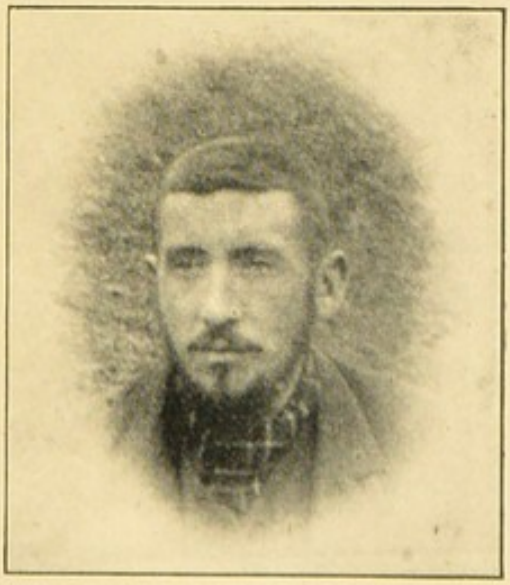
M. C. MELANCHOLIC STUPOR.



T. M. CHRONIC MELANCHOLIA.



T. C. CHRONIC MELANCHOLIA.



R. M.
DELUSIONAL MELANCHOLIA.

o face p. 120.

Takes a seat.

Q. Who told you to sit there ?

A. I don't know; they said my son was coming to see me.

Q. How are you to-day ?

A. No very weel.

Q. What is the matter ?

A. I'm very bad. I haven't had a bed these three nights.

Q. You can't take your food ?

A. No (with a groan).

Q. You are very miserable ?

A. Yes (with a groan).

Q. What is the cause of your misery ?

A. I want hame. The folk here won't let me hame.

Q. You don't get any pleasure in life at all ?

A. No.

Q. You don't enjoy a smoke ?

A. No for a long time.

Q. Do you remember asking me for tobacco yesterday ?

A. (with feigned surprise). Was't you ?

This man has indulged the melancholy wail so long that he couldn't give it up if he tried. He was truly very melancholy once. This is the memory of it stereotyped in expression only, for he has no real emotional depression, and enjoys life and all the good things that come his way as well as anyone I know.

Melancholic Stupor (clinical lecture).—Three cases (all females, all Marys) are now introduced.

Mary A. is tall, extremely thin, drooping gait, and head drops on chest.

Mary B. is tall, thin, extremely pale and anæmic, rather limp and gawky.

Mary C. is of medium height, stout, sallow, of heavy expression and lethargic.

These three are cases of melancholic stupor, and this is certain from the fact that each has a history of mental depression and causes calculated to produce anxiety and depression. But what evidence is there, judging merely by their present condition, that they are cases of melancholic stupor ? Hitherto the principal distinction drawn between

melancholic stupor and anergic stupor, of which we shall speak later on, was that of apparent consciousness in the former, and the mind an absolute negation in the latter. Now, in each of these three cases there is apparent consciousness, and this, we assume, in two cases merely from the facial expression, especially that of the eye. There is no reaction to stimulus in M. C.; but Mary A. resists attempts to feed her, though she never speaks or reacts in any other way. She is particularly resistive when medicine is put into her food, which shows that there is an idea behind this resistiveness, though she never speaks. This patient some weeks ago was less expressive, her eyes were usually closed, and if opened had the expression of gazing sadly into space; but from first to last her facial expression was that of melancholia, statuesque, immobile, but the melancholic expression was graven there.

These three cases of melancholic stupor are not identical.

Mary A. is most conscious of the three. She observes and turns her head, and follows with the eyes during the last few days, and she resists.

Mary B. comes next in apparent consciousness. She observes, but from her cephalic formation and facial expression she is evidently not of so high a type of intelligence as Mary A. She rises from her chair when spoken to, and when told will go and pull Mary C. off her chair, and then both come to a standstill.

Mary C. is apparently the least conscious of the three. Her facial and cephalic configuration are better than Mary B.'s, but she is most stuporose. Of will there is none; whether it is suspended under the power of delusion we cannot conjecture.

The more profound the stupor, the less the resistiveness (will suspended), the less the sensibility to pain or touch or special sensations, and the more diminished the reflexes. It will be noticed that these three patients are young girls from twenty to thirty years of age. I wish to point out that youth is the time when most cases of stupor arise, and the reason is a weak brain, the result of inheritance and feeble staying power. I have found a tendency to phthisis in

several cases, and you will observe the strumous cicatrices in Mary A. She has a very erratic temperature chart, and we are suspicious of mischief at the apex of the right lung. After-note: she died of phthisis seven months later.

I wish now to direct attention to one case, a male, who has been a masturbator all his life. He is now convalescent from an attack of melancholic stupor, during which he was fed by stomach-pump, and states that he was under the influence of delusions, and perfectly conscious all the time.

Expression.—His expression did not express obscuration of the mental faculties; the features were relaxed. The face very pale, and exhibiting a passive though serious expression.

Attention.—The faculty of attention was not lost, for he followed with his eye the various movements of the ophthalmoscopic mirror, as the light was reflected from spot to spot towards the pupil. While lying undisturbed on the sofa, he occasionally turned his eye in the direction of any moving object. How far this was purely reflex and how far consciousness was associated with it we were of course unable to determine.

Sleep.—At irregular periods he appeared to fall asleep. The eyes then closed, and this was the only objective difference between his sleeping and waking state.

Special Senses.—(*a*) Hearing: When a noise was made behind him he was seen to wink. (*b*) Seeing did not appear to be impaired, as he frequently followed movements with his eyes. (*c*) Other special senses had not been tested.

Ordinary Sensation.—(*a*) Pain: No response elicited by pricking sharply with a needle. The sudden and unobserved application of a strong interrupted current caused him to quickly draw away the part stimulated. (*b*) Heat and cold: Test-tubes applied to the skin, alternately hot and cold, gave no indication, as he gave no response verbally or otherwise. (*c*) Touch and (*d*) tickling gave likewise negative results.

Motor Functions—(*A*) *Reflex.*—(*a*) Swallowing normal; swallowed saliva readily enough. (*b*) Coughing when back of throat tickled sometimes. This reflex irritability has

become much more marked during the last few weeks. (*c*) Breathing natural and quiet. (*d*) Micturition normal. Penis always was placed in an indiarubber urinal, and it was found that micturition took place after decided intervals, and that there was no incontinence. (*e*) Defæcation: Was placed on the seat of w.c. at stated times. There was no incontinence. (*f*) Eyelids normal. (*g*) Skin reflex: Absent in axilla, and almost entirely in soles of feet, where all the toes responded, but not synchronously, and very slightly. (*h*) Tendon reflex: Exaggerated in both knees, the legs jerking with a flail-like movement.

(*B*) *Voluntary Movements.*—Of these we saw practically nothing. The balance between the extensors and flexors of the feet was lost, the legs being flexed, and the shape of the feet suggestive of extensor paresis. This did not obtain in the case of the hands.

Vaso-Motor and Nutritive.—(*a*) Local congestions: These were readily excited by external irritation, and persisted for a long time after. (*b*) Pallor extreme all over the body. (*c*) No œdema. (*d*) No inflammation or wasting.

For a few weeks the interrupted current was frequently applied to his muscles and some of his nerves. The nerve trunks of the arm and face were those chiefly stimulated. This appeared to rouse him somewhat, especially when the facial nerve was stimulated. About this time also I noticed that the stomach-tube met with more resistance in being passed down the pharynx, a condition which was attributed to an improvement in the reflex tone of that part, and a disappearing of the relaxed condition of the pharyngeal walls.

CHAPTER VIII.

PARTIAL INSANITY—CHRONIC PROGRESSIVE DELUSIONAL INSANITY.

Partial insanity, its frequency and manifold forms constituting a large group midway between melancholia and mania — The use of the term 'monomania' by Esquirol — Chronic Progressive Delusional Insanity—A well-defined type; four stages: incubation, persecution, grandeur, dementia—These described—Differential features: distinguished from melancholia, alcoholic insanity, and other groups—Clinical illustrations.

With the question whether a man's mind is ever totally insane, we need not take up further time; but undoubtedly there is great force in the dictum of Savage, that to many cases of insanity, if not all, we may apply the term insane persons, meaning thereby persons fundamentally sane, but more or less functionally insane. The terms paranoia, monomania, partial insanity, imply this belief, and a very great clinical advantage is gained by this recognition of the fact that the old symptomatic group—melancholia, mania, dementia—does not explain everything. Whether the type of insanity, like the type of fevers, is changing with the march of time, we need not pause to inquire; but clinical differentiation has revealed to us of late years a new grouping of a large proportion of cases which, under the older symptomatic views, were differently allocated.

The swing of the pendulum to one side reveals melancholia, to the opposite side mania; but, as I have already stated, in many cases the normal state of feeling is nearly neutral, and so also do we find it with many cases of insanity. There are very many patients who, if they are to be judged by their state of feeling, are certainly not cases of mania, for they exhibit not a glimmer of exaltation, nor are they

melancholics, if loss of the sense of well-being and a distinct feeling of mental depression are evidences of melancholia.

They constitute a large group midway between melancholia and mania, sometimes partaking of the one (depression), and sometimes of the other (exaltation). They may be regarded by any of the following names—paranoia, monomania, partial insanity, all signifying practically the same thing. Partial insanity is a very wide term, and it is possible to differentiate several types in this group; indeed, to such an extent has this been done that our nomenclature has become rather confusing. To Esquirol we owe the term 'monomania,' and he classified monomanias according to the mental faculties involved. In the same way a physician may speak of hepatic disease, cardiac disease, and so on, without that discrimination which gives a clue to the real character of the disease. If we are to strain the elasticity of the term to the fullest extent, partial insanity or paranoia, the terms which I prefer to use, will include many cases of melancholia, not a few of mania, impulsive insanity (homicidal or suicidal), moral insanity, epileptic insanity, hysterical insanity, and the so-called monomanias of suspicion, persecution, pride, and grandeur.

In this chapter it is intended to deal chiefly with perverted sensations and emotions of suspicion and pride, hallucinations, and ideas of persecution and greatness, and this purpose is justified by the fact that here we have partial insanity of the most well defined range, albeit it may be of a very grave character as regards prognosis. Moreover, this group is large enough to embrace several varieties essentially different as regards origin, mode of onset, mental characteristics, and prognosis, and it is sufficiently large to account for a very considerable proportion of the cases of insanity which come under medical observation. In going through the wards of an asylum, we must be struck with the number of patients who are a prey to suspicion, who believe that they are victims of a systematized scheme of persecution, who are subject to hallucinations of hearing, being accused and abused in every conceivable way, annoyed by voices in the walls of their rooms, under the bed, up the chimney, everywhere; patients who are

subject to strange and perverted sensations, which they attribute to mesmerism, electricity, or other unseen agency; patients insanely proud, and animated by large ideas and lofty delusions. In very many of such cases we will find the understanding sound on every point outside this morbid range of thought, so much so that the idea has now become a popular one that 'many madmen are only insane on one point.'

I have under care at present one gentleman who is courtesy and politeness itself, ever ready and willing to give intelligent assistance in the wards, to assist the medical officers in the mechanical part of their investigations, a man of observation, who reflects acutely on affairs at home and abroad, and is only astray regarding the intention of one man towards his life, and on this man he made a homicidal attempt which brought him to an asylum.

The confusion which has so long obtained regarding the various forms of monomania, and particularly regarding the manias of suspicion, persecution, unseen agency, and pride and grandeur, has been largely dispelled by the observations of Lasègue in 1852, and more especially by the able lectures of Magnan on Chronic Delusional Insanity of Systematic Evolution. These lectures have been translated by Dr. A. Marie and Dr. J. Macpherson, and so published in the American *Journal of Insanity* for 1895-96. The translation is a valuable acquisition to the English literature of mental disease.

Magnan has eviscerated from the mass a well-defined group which he designates chronic delusional insanity of systematic evolution, and the main characteristics of this group are: (*a*) no heredity, or very slight; (*b*) a long, protracted course; (*c*) age of commencement from thirty onwards; (*d*) women affected four times as often as men; (*e*) mental integrity intact outside the delusional and hallucinatory range; (*f*) a definite mode of onset, and four distinct stages, viz., incubation, persecution, ambition, and dementia.

On the question of hereditary mental defect or degeneracy, Magnan observes: 'The victims of chronic progressive insanity may undoubtedly present signs of hereditary degeneration and of psychical abnormality; but similar hereditary nervous

defects are manifested in general paralytics, simple maniacs, and mentally well-balanced healthy individuals, as well as in the hereditarily degenerate. But although here and there in the ranks of chronic progressive insanity an isolated case of hereditary mental defect may appear, it does not necessarily follow that such is a *bona-fide* case of mental degeneracy. If we examine the clinical records of these cases, we find hard-working mothers of families engrossed with the cares of their household up to the date of their illness; we meet with others in asylums who possess cultured minds and a keen sense of observation; others, again, are intelligent sober men, who, as a rule, have reached their fortieth year without manifesting any mental disorder which was in any way appreciable to their relations.'

The period of incubation is frequently unobserved. It is marked by more or less depression and anxiety; there is no insanity as yet, but a hypersensitiveness, a habit of doubt and a careful scrutiny of his sensations, with perplexing anxious thoughts as to their why and wherefore. My experience is, as Magnan puts it, that this period is frequently unobserved, for the patient is not likely to speak of nebulous thoughts and suspicions; and later he is too wrapped up in the morbid present to reflect accurately or with any interest on his past, so that it is difficult to obtain data. It may be, however, that a history can be obtained from friends, of causes for anxiety and depression, such as business failure, or a dissolute husband, or prolonged anxiety accompanied by nursing and poverty.

Magnan observes that the patient has a general feeling of ill-being, and an inexplicable discontent with his surroundings, and, in the case of females, a feeling of jealousy is often excited by an absurd or unusual incident. At this stage of the affection the symptoms which initiate the malady are, as Lasègue remarks, only of relative value. 'There are no great mental disturbances, no marked depression of spirits, only some insignificant personal, unpleasant emotions. Until now the subjective symptoms deserve no better name than petty worries and annoyances, nor is the insanity accompanied by sensory disturbances.

The second stage, the outbreak of delusions of persecution, with perverted sensations and hallucinations, or both, is well marked. It is called by Magnan the mania of persecution; but, to prevent misconception afterwards, I use the term 'obsession of persecution,' a term that can be applied to describe a prominent feature of several concrete forms of insanity, and preferable to persecution mania, which represents a concrete idea itself. The fact that mania of persecution is freely used in application to several conditions totally different in their inception, syndromata, and prognosis, makes it desirable to give up the term altogether, and to use it to describe a stage of progressive delusional insanity is misleading. The second stage is not an abrupt departure from the first so far as the patient's history is concerned; but to the observer, who knows little or nothing of the subjective experience of the past, its onset seems abrupt. It is still open to question whether perverted sensation is not the very beginning of the malady; but of this we may be certain, that the second stage is characterized by perverted sensations, hallucinations, and delusions of persecution. Quoting freely from Magnan, the following description briefly describes it and the stages which follow: At first the hallucination of hearing is not verbal, but consists of imperfect complex sounds; gradually they develop into hummings, rustlings, afterward into low whispering voices. Finally, isolated and distinct words are heard in a loud voice, and frequently in a foreign language, if the patient knows more than one language. Every auditory impression, of whatever kind, is sufficient to produce the verbal hallucination, the pulsations of the heart, the creaking of waggon-wheels, the ticking of a clock, etc. The voices may occur without any such stimulus, and may be heard when all around is perfectly still. Hallucinations of sight are much less common; hence the mystery and the reason why some patients are long in discovering a morbid solution for the persecution which they suffer. One man under my care for fifteen years has not yet been able to identify his persecutors beyond the word *they*. 'They do this, they do that; but who are they? Ah! that's what I can't tell you.' Magnan quotes the case of a woman secluded

for three years and some months in a cell. She evinced very distinct visual hallucinations. Her persecutor appeared to her showing sometimes only his eyes, at other times his grinning face. In her case it is probable that the prolonged seclusion—he does not say how much of it was dark seclusion, but probably the most of it was—the darkness and nervous fear and suggestions, assisted materially in conjuring these awful sights of her morbid imagination.

One of the most distracting phases of this obsession of persecution is the belief that a man's thoughts are read while still unuttered, that they are stolen. So distressing is this idea that patients will devise means to get away from the reach of their supposed persecutors, only to find that they are followed, and their thoughts read before any move can be effected. One man begged his brother to choose for him a home, and not let him know where it was, for he added, 'If I were told where, enemies would also be informed, for they steal my thoughts, and would follow me to my new home.'

By-and-by the patient speaks in answer to the voice, holding a dialogue with it, or it may be with two separate voices: one may accuse, the other reproach, a third defend the patient or act as censor. 'When the abuse is funny, the censor laughs and mocks; if it goes beyond proper limits, or if the censor finds the expression too strong, he takes the part of the defender.' The hallucinations are in many cases probably the sequel to ideas, or at least suspicions, of persecution, and their character is determined accordingly by the ticking aloud, so to speak, of such thoughts in the brain, what Magnan calls very appropriately *verbal echoes*. Hallucinations of smell are sometimes present; the patient complains of sulphur being thrown on her, vitriol, etc. In like manner, there may be hallucinations of taste or other senses.

The disorders of general sensation can only be referred to in general terms, for their manifestations are endless. According to Falret, they appear in the third stage, but this is not Magnan's experience, and since giving special attention to the subject I am disposed to endorse his remark that these general sensations may appear concomitantly with the hallucinations of hearing, or precede them, or even give rise

to the ideas of persecution. They may suggest to the morbid perception of the patient the creeping of insects over the skin, the sucking of the breath, the charging of the head with electricity, or the throwing of darts on the body. Genital sensations are common in women. They charge men with violating them, giving them a loathsome disease, impregnating them, etc.

In a patient afflicted with disordered general sensations and hallucinations, what more natural than that ideas of persecution should become deeply rooted? 'The ideas of persecution are constantly confirmed by false interpretations. The patients claim that they are constantly watched, that the walls of their houses have inspection-holes, that their neighbours are spies,' and so on. The ideas of persecution don't stop here; the systematized evolution of the disease goes on, and the most natural course in the circumstances is for the patient to put the question, and repeat it: Why this persecution? Who are they who persecute me? The answer to these questions is determined by wrong deduction, of course, according to the mental history of the individual. Some are persecuted by secret societies, by Freemasons, the Oddfellows' Society, by Fenians, Americans, or certain individuals, there being usually one central head, and, according to Magnan, the motives of the persecutors are as various as the persecutors themselves.

One man believes that he is tormented by anarchists *for political reasons*, a woman stated her opinion that attempts were being made to throw her into a lethargic state *in order that she might be violated*, and a man imagines the aim of his enemies is to render him insane *so as to secure command of his money*. Having carefully inquired of several patients afflicted with this disease, I find that a motive is not always clear to the patient. In my experience, the motive is often as puzzling to the patient as to the observer, and he has not got beyond the question, Why are they doing it? In one of my cases the motive is quite evident to the patient; he says he is being poisoned by Americans, and he warns me that I am being poisoned also, and that their aim is to

poison all the people in this kingdom, *so that they may obtain possession of the country for themselves.*

In the logic of events, there ought now to follow a period of active resentment. It seems strange that a man or woman should be besieged by ideas of persecution, the description of which is often so harrowing as to make us wonder how they have borne this seeming reality so long without striking out. But as a matter of fact they do bear it, and often fatten on it. Some of our patients so afflicted are plump and physically healthy; they eat well, sleep well, and enjoy life to a wonderful extent. Thus, the question arises whether the oft-told horrible tale with which they delight to regale the ears of every passer-by does not become the self-exaltation of the martyr. Following on this, we may inquire whether the real melancholia is not that of the incubation period, and the obsession of persecution a late and outward expression with actual sensory realities, albeit they are morbid and produce false representations. With the mental distress becoming gradually obliterated, the patient's state of feeling becomes adjusted more in harmony with his altered sensations. Be that as it may, active resentment is not so common as one might expect, and, with all respect to Magnan, I am disposed to believe that it is more frequent in cases of the alcoholic insanity of persecution to be afterwards described.

The following description from Magnan's lectures is quite compatible with the mental attitude of the patient and his natural impulses, and, as it only refers to his attempts to evade his persecutors and their persecutions, may be accepted as reliable. It is regarded as of short duration. 'In order to escape from his persecutors he may change his studio or office incessantly, or he may change his name. Those who can afford it frequently take long voyages to distant parts (Foville's migrating insane). Those of them who think they are being poisoned purchase their food at various shops at a distance from their homes, and prepare it themselves for use with infinite precautions. They either cook for themselves, or frequently change their eating-houses. They draw water at daybreak before others have used it.

One of our patients, in order to avoid electrical discharges, wore stays furnished with magnets, and silk stockings. Some have been known to commit offences in order to be punished, so that they may invoke the aid of justice.

Three modes of reaction may be manifested: one is to try and outwit the persecutors, and this has already been described, with this exception, that, instead of evasion or running away, the patient may still further exercise his powers of circumvention by erecting barricades, stopping up crevices in his room to prevent poisonous fumes penetrating. He stuffs his nostrils, wraps up his head to the verge of suffocation, or holds his head low down to shelter it from darts, with less reason than the ostrich, which buries its head in the sands. A second mode is by suicide, the patient losing heart altogether; and a third, and, according to Magnan, a most frequent mode, is the homicidal reaction. 'We have known some who sat in the staircases of their houses all night with a lighted lamp and revolver. One of our female patients was always armed with a stiletto to defend herself against agents who followed her so as to find her in the act of doing something wrong.' Such patients, under the influence of a hallucination, frequently strike at an inoffensive passer-by with an umbrella, or stick, or knife, or even shoot with a revolver, to the danger of life.

Then comes a time when, failing words to express his meaning and describe his inward state, the patient invents phrases, and introduces words with new and strange adaptations. This is probably more noticeable in patients of the poorer, uneducated class, whose normal vocabulary is of limited range; but educated or uneducated, it is a very noticeable feature of the disease. One patient writes a letter as follows: 'That I have got attraction to my frame, medical attraction to the atmosphere; that they are taking me in from Glasgow, doing as I am and has done; that they have controlled me to mechanism, steam, or wind, gauging of the atmosphere; that I have controlled my frame to his caturging or rifle pits in Lenzie.'

This man says there is a man in the moon continually troubling him; that the sun works on him, and is continu-

ally sending sunlight into his body. He admits that he had sunstroke while in India with his regiment, and seems to have committed some very insane actions for which he was discharged and sent home. He sometimes feels a bad taste in his mouth, and suspects it is due to poison put there by some of his enemies.

The following are expressions taken down as they were uttered by a female patient: 'They took in my frame in concealment with their weapons.' 'They cannot telephone without a female frame being taken in.' 'I didn't come to expound the weapons, and Mr. Tennant will let out my frame.'

The third stage of chronic progressive delusional insanity is that of *megalomania* (mania of greatness), or, as I prefer to describe it, the obsession of greatness. It is still uncertain by what mental process the transformation from delusions of persecution to those of greatness or grandeur takes place, and there is considerable conflict of opinion still regarding this point. But it is likely that the change is a gradual transformation, and it is certain that in many cases it has taken place for some time before it is suspected, owing to the reticence of the patient on the subject. The obsession of persecution becomes weaker and weaker, and by suggestion or hallucination the obsession of greatness takes possession in the patient's mind, strengthening the morbid process of grandiose reasoning which has begun to take root in a mind already considerably weakened and more insanely susceptible than ever.

The following are examples of the transformation: 'The transition from ideas of persecution to ideas of ambition and grandeur often happens, as Foville remarks, as a result of logical deduction. The patients imagine that, since they have been unintermittently tormented for many years, so much envied, so intensely detested, they must be people of no small importance. A female patient, after complaining that her brain was paralyzed, and that she was deprived of her mental faculties, exclaimed one day, "If I were less intelligent, I would not have been so afflicted. They have sold my birthright for 15,000 francs, my character for 45,000

francs, and they steal my thoughts to write a book with." One female patient declared that her persecutor, a priest, after many years changed his tactics, gave her £30,000,000, and made her an exalted personage in order that he himself might benefit by her influence. In certain cases a hallucination suddenly produces the ambitious idea. A female patient one day heard herself called "Queen of France." It must not be supposed in the last instance that the change was sudden, because the hallucination gave it birth; the grandiose conception was in course of formation, when the hallucination confirmed it' (Magnan).

A consideration of the foregoing facts will suffice to impress upon you that to a mind besieged with delusions of persecution, but instinct with egotism, the idea of retribution or restitution a hundredfold for all they have suffered is quite conceivable; and that the grandiose conceptions should be of an extravagant kind in some cases is not surprising when we have regard to the mental deterioration of many patients at this stage. In many cases the grandiose stage is only manifest in self-conceit, optimism, and a vague sense of intellectual or other capacity, without explicit delusion. One patient evinces it in her manner and carriage; she looks as if she regarded everyone as dirt beneath her feet, but as yet has not expressed any delusions. Another very like the preceding in gait and behaviour, an older woman, calls herself God's wife; but her intellect is enfeebled, and, except in the way she comports herself physically, she does not act the character. She neither blesses nor bans; she gives no intellectual results.

One question arises here, Do the delusions of persecution and greatness ever occur together in the patient, and is there ever a retrogression to the extent that a man lapses back from ideas of grandeur to ideas of persecution? If there is any *see-saw*, it must be taken as evidence of a weak inheritance; although in chronic progressive insanity we may have the two forms of delusion at the same time without any see-saw or suggestion of a weak inheritance. I believe, however, that the two kinds of delusion may co-exist for a time at least, and give rise to some confusion and doubt as to the nature of the

case; but though clear and distinct from each other, they are probably the result of one fundamental obsession of persecution, and one is more predominant than the other. Indeed, the exalted idea often appears very early in the second stage, and in such a case there is no dividing-line between the second and the third stage at all.

The fourth and last stage is that of dementia, with all the mental powers reduced, and a condition of fatuity as the result. Respecting this there is also some controversy, for the disease is said to last from twenty to forty years; and if we take the latter period, dementia in any case ought to be an inevitable result in many cases on the score of senility alone. Falret, while admitting a weakening of intellect towards the end of the grandiose period, and a more confused state of mind, refuses to acknowledge the existence of a period of dementia as an essential fourth stage of the disease. This, however, is a matter of small moment, for the tendency of all forms of chronic insanity is towards dementia, just as the tendency of life prolonged is towards senility.

From chronic progressive delusional insanity we must differentiate melancholia, subacute or chronic alcoholic insanity, insanity of adolescence, epileptic insanity, general paralysis. It may appear a simple matter to do this; but we must remember that we have here described the whole life-history of the disease, extending over thirty or forty years; and no such case will come to us with the whole life history —past, present, and future—opened out before us. The diagnosis therefore becomes more perplexing in proportion to the meagreness of the history presented to us. In melancholia the essential feature is distinct mental depression, an unmistakable grief; the melancholic is more disposed to accuse himself, not others; his delusions are different, and persecution has no place in his thoughts. He is more likely to give evidence of bodily causes or accompaniments. Besides, the genesis and the manner of onset of the disease are different in both cases, and the mercurial variations of the melancholic are in contrast to the systematic sameness, the gradual progressive development on the same line, of the mental history of chronic progressive insanity.

The insanities of alcoholism and other toxic conditions more closely imitate this disease, especially when hallucinations of hearing and ideas of persecution are present. Indeed, the two may fuse together, and, grafted on the progressive systematized insanity, the alcoholic may accentuate it, especially by the intensity of the hallucinations, and by the addition of hallucinations of sight. So far as the stage of persecution is concerned, the two may be almost identical, and it may be very difficult to differentiate with certainty. One such case under my care for the last ten years was clearly a case of insanity from chronic alcoholism; he was subject to congestive attacks of the brain, with stupor and irritability. These gradually ceased; but with his intellect clearing up he manifested delusions of persecution, the form of persecution being always the same (galvanic shocks), and the agent the same, and he was and is the subject of hallucinations of hearing. The one point that keeps him out of the category of chronic progressive insanity is that he is extremely reticent, not from suspicion, though he is suspicious, but from mental confusion and stupidity, and his condition is stereotyped, not progressive. In alcoholic insanity you will be assisted in many cases by evidence of toxæmic sequelæ, uncertain gait, tremors, multiple neuritis, pupil symptoms, etc.

The insanity of adolescence and of a still later period, with marked hereditary susceptibility, may simulate this disease; but there is a very essential difference between the two. In the adolescents, and others named, the mere fact that there is a morbid susceptibility to adverse influences, moral or physical, that the mental equilibrium is easily disturbed, signifies the possibility of sudden dramatic effects in the mental history. There is noticeable a mercurial temperament, erratic rise and depression, ill-regulated, intemperate flights of fancy, outbursts of impulsive character, inconsequent rush of ideas, everything by turns and nothing long, suggesting the question, What will he say or do next? Now, it need scarcely be said that this is in marked contrast to the characteristics of chronic progressive insanity; but occasionally the ideas of persecution may be more consistent

and fixed, and you must then have regard to the patient's age, family history, personal antecedents, and all evidence which can be obtained of hereditary stigmata, physical and mental. When patients of the adolescent class exhibit delusions of greatness, they are not consecutive to delusions of persecution. They are extravagant and far-fetched, and not formulated with any basis of reason. They are day-dreams, the result of an exalted state of feeling, and the patient does not act up to them intelligently. In chronic progressive insanity exalted delusions come late in the disease, and are logically related to and evolved from the preceding stage.

In epilepsy ideas of persecution prevail after fits, but there should be no difficulty in distinguishing such cases. Nor in general paralysis of the insane is there any risk of confusion, for ideas of persecution are rare, usually associated with the ataxic forms of the disease and with increasing dementia; and grandiose ideas are numerous, and rarely ever the same for two hours together. Besides, the nervous symptoms will speak for themselves.

The prognosis is necessarily a very hopeless one, and this is brought out most emphatically by the results of treatment.

The treatment can only be alleviative. Various means have been tried to arrest the disease, but without avail, for it is the man himself. Intimidation has been tried, but surely never was anything more foolish than to try by force to dissipate a fixed delusion. Trephining, galvanism, stramonium, and cannabis indica have been tried, but without avail. In the present state of our knowledge we must perforce regard the man and his disease as one, and death will end them together. It is possible, however, to make his life less miserable, especially where there is a distinct tone of melancholy, and in all cases consideration and patience in dealing with such cases is most desirable. Negative treatment means doing nothing that will give food for morbid reflection, such as occult treatment, galvanism, trephining, etc. These are sure to suggest some fresh devilry on the part of the persecutors. In asylums, and such patients must, as a rule, be sent to asylums, the various orders, the routine, the continuous alterations in the discipline for the

good of the insane community, offer many suggestions to such patients; and with the best intentions possible you will give offence, but as far as lieth in you do not wittingly raise a rock of offence or a stumbling-block. It is most important to get them to work if you possibly can. I find the female patients less idle than the males. When hallucinations are painfully annoying, and there is wasting of the body from this and sleeplessness, bromide of potassium is sometimes very beneficial. Indeed, when there is accentuation of sensation in any form short of acute neuralgia, it is clearly indicated. Tonics are often helpful, and in states allied to melancholia the indications for its treatment should be borne in mind.

Clinical Illustrations.

Two cases placed side by side illustrate the real and the false presentments of the disease:

John W., æt. 27, is what Magnan would call a degenerate, and in this case I do not differ from him, for this patient has always been regarded as of weak intellect, though by no means an imbecile. He is of nomadic origin, there is no alcoholic history; he has been depressed since his father died seven years ago. Has always been excitable, and easily disturbed, easily offended; lived very much by himself; was fond of reading. He disturbs the neighbours, calling them all sorts of names; roams about during the night; imagines everyone is speaking of him; hears voices planning injury against him, and sees the persecutors. He usually sits in a corner with his head in his hand; complains of someone trying to choke or suffocate him. He can't say who this 'someone' is. This is his chief delusion. Others come and go; *e.g.*, believed he was mesmerized so that harm might be done to him. Got some work to do such as he had been accustomed to; would only work if he was allowed to go into a room by himself. Could not work steadily because of his persecutors. This man's face (*vide* photograph) is weak. Observe the lower half of the face, the horizontal ramus of jaw, which in this case is not horizontal, but nearer the perpendicular; the palate is highly arched, the mouth prominent and weak, and

the general conformation bad. That is an argument against his case being chronic progressive insanity, and quite a sufficient one; but note also in the same scale the fact that he entertained the delusion that his aunt was dead, but when she was brought to him he was convinced of his delusion. A chronic delusional case would deny the aunt rather than the delusion. Note also that the evil suggestions of the night were often dispelled in the daytime by his mother's arguments. Note also the age, and the absence of strength of character and staying power in argument.

William D., æt. 38.—Has been going wrong for at least two years. *First*, business matters; became bankrupt. This was the stage of incubation. Now the stage of persecution is fully developed. He hears voices and sees visions. Prefers to talk alone with the doctor. Believes himself persecuted; says, 'I hear them just as distinct as I hear you; they force my thoughts. If I think one thing, they substitute another.' Perverted sensations: Feels cramped and drawn, and sudden relaxation after. Feels his brain compressed, and holds his head tight as if he had a headache. Special vocabulary: 'They have the power of working me *through angles of movement;* for going along the street in certain directions I am allowed to move freely; in other directions they restrict me by cramps in my legs.'

Q. Who are at the bottom of it?

A. The Catholics are at the bottom of it.

Q. Can you name them?

A. No; I'm afraid. They sneer at every thought of mine.

Q. You are sure they are Catholics?

A. They have no power in themselves but what is given them.

Q. Given them by whom?

A. Some order (mysteriously).

Q. What order?

A. (still very mysteriously). Freemasons.

The only suggestion of exaltation here is manifested when I put what he regards, superciliously, as a question that a child need not have asked. I am supposed to know and

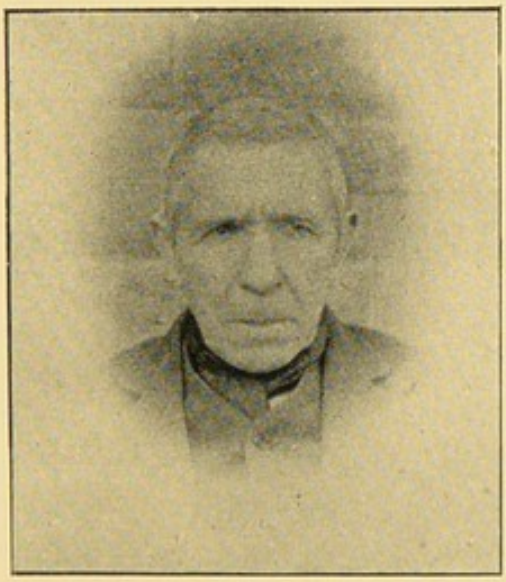
Plate II.—CHRONIC PROGRESSIVE DELUSIONAL INSANITY. MONOMANIA OF PERSECUTION.



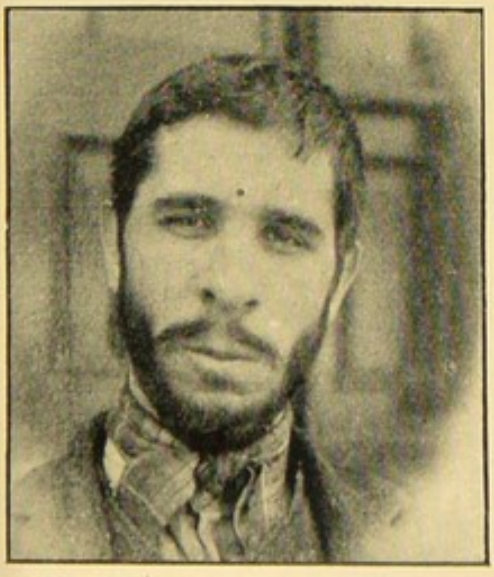
PERSECUTORY STAGE.



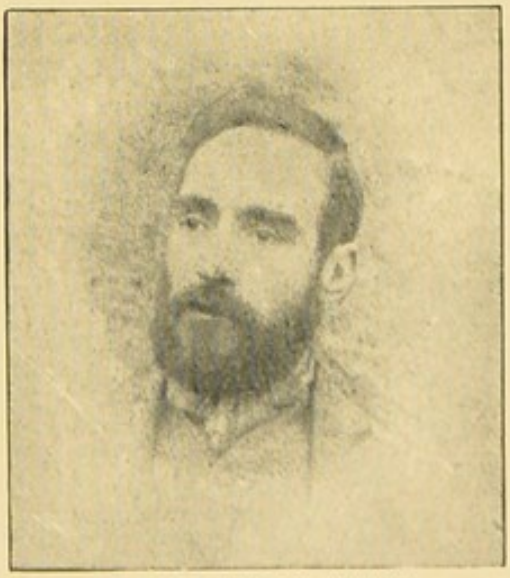
GRANDIOSE STAGE.



PERSECUTORY STAGE.



J. W. MONOMANIA OF PERSECUTION AND UNSEEN AGENCY.



PERSECUTORY STAGE.

e face p. 149.

understand it all by a word or a sign. He looks superior and pitifully contemptuous when I display ignorance.

He looks a strong man; physically he is robust; in all other respects he is *compos mentis*, and there is no suggestion of hereditary weakness, even in a fractional degree. On the paternal side there is a history of intemperance, and one brother is of neurotic appearance. Patient's own history is fairly good. No venereal trouble, no alcoholic or sexual excess so far as we can learn.

John W., æt. 38.—This man has been insane for some years. He is a man of marked natural ability, and he knows it; of extremely ambitious cast of mind, with quixotic visions of life and human conduct generally. He has numerous projects for the good of the race; writes voluminously. His unsoundness of mind is not at all apparent, for his speech appears reasonable, and it is difficult to prove at first that his conduct is insane. He is of sensitive organization, dignified manner and mien, with conscientious scruples and egotism mixed together. He carefully keeps his insane ideas in the background until sometimes provoked to give expression to them. He is of the age to come within Magnan's classification, and there is no suggestion of degeneracy in his case; but he seems to have been exalted for years, and his delusions of persecution, his suspicions of the true motive of every word and deed of those in authority, have not preceded the exaltation and egotism which seem to be a primary inherent part of the man's character.

Extracts of Female Patient's Correspondence.

Mrs. G., æt. 39, a widow, postmistress; unhappy married life; husband bad and deserted her. She believes she was brought to the asylum owing to the intrigue of a man named Gregory, who is her persecutor. In importuning her daughter to get her removed, she plans every step with great circumspection, and details almost the words to be used and the specious arguments to be employed. She even goes the length of telling her daughter to speak well of her father, and frame a fictitious story of their married life. Gregory and

Burke are not myths. She alleges that in her official capacity she detected them committing frauds, and got them imprisoned, hence their persecution of her.

'Gregory was a detective who lived near my post-office. He and another detective named William Burke, who died here three months ago, were dismissed for theft and burglaries by the Town Clerk of Hallside. Both were out of employment and filled up a "form" stating that I was insane, and gave the "form" to the Inspector of Poor, who believed it to be true, although it was a forgery and quite untrue. The "form" had written on it two Hallside doctors' names, both forged signatures, and so the Inspector of Poor brought me here, believing the "form" to be true. Gregory and Burke brought me here to make money, and have succeeded in doing so. Burke is now dead, but Gregory still wishes to stay here to make money. Tell Aunt Isa to do exactly as desired, and may Heaven prosper her visit here, and may I get away next week! The Inspector of Poor already knows of the forged "form," but believes that I am quite ill and unable to go home, which, of course, is quite untrue. Gregory gets the nurses here to collect cash from door to door for me, and forges signatures to show how needy and urgent the case is. Gregory pockets the cash, and is quite well provided for. . . . No nurse or official can hear accurately what I say, because Gregory's speaking-tube talks each time I talk, and quite obscures my remarks frequently. At other times Gregory's requests in my voice are, "Please say I am a thief." "Please 'visit' to get my things from the pawnshop." "Please say I expect a baby." "Please say I am covered with beasts." I was once violently expelled from the concert-room unjustly, the exasperating remarks having come mostly from Varley's speaking-tube. . . . Varley hopes to stay as long as he lives, as every criminal desire is gratified, and the officials beg lots of money for him and pretend they are begging for me. Nurse C. from H—— told lies against me in H—— last Saturday, and collected a good sum of money for Gregory and his set. She pretended the cash was for me, and made me poor indeed to get good donations. To save her from arrest and from dismissal,

and to screen her daily and nightly indecent conduct with Gregory, Nurse C. is forced to tell shameful lies to the matrons and medical staff here.'

LETTER TO HER DAUGHTER.

'If Mr. G., my husband, is referred to, you must talk very kindly indeed about him. He was a successful stationer, and we got on very nicely together. He always behaved very nicely. You were living in England during my married life, and did not know him very well. He is so long dead that you need not mention him, and if he is referred to, do not say a word against him, but talk as above. Do not give any more particulars about him.'

The following extract from a subsequent letter illustrates how much sanity still remains in these cases, and how a mother, who may be subject to the most outrageous and profane ideas, and be impelled to the utterance of the most disgusting language, still possesses mental capacity, refinement, and a high moral and religious tone :

[COPY.]

'HARTWOOD ASYLUM,
'*November* 16, 1896.

'MY DEAR ELLA,

'I hope you will manage to read this letter, as it is being written with water. One of the nurses accidentally overturned the ink-bottle, and then put some water in it. I am glad some fresh ink has been procured, and that you will have no difficulty now. The materials to make a small bag, written for last week, have not been sent. Some strong material is required to make a bag a little bigger than a brush and comb bag. Two yards of striped tape for its string, and a halfpenny hank of sewing thread to sew it are also needed. Send also twenty-four sheets small note-paper, twelve envelopes, two Waverley nibs, and one (6d.) bottle of hair pomade. If you have them already sent, the pomade can wait till I require another supply of paper. Aunt Isa need not come up at present, as there is no immediate prospect of release. I hope grandma and my faithful little

girl are keeping quite well. You do not seem to have got my last letter, which is puzzling. I am still enjoying excellent health, and hope you will remember your ablutions, meals every three hours, reading, etc., as directed in previous letters. With fondest love to grandma and yourself,

'I am,

'Ever your affectionate mother,

'J. G.

'P.S.—Remember grandma and me in your prayers every day. Be sure always to keep strictly truthful, obedient to grandma and your superior officers of the post-office, humble, and self-controlled as desired. I am so pleased with my little girl, and know that she attends to all I suggest. You have always been such a faithful little girl, and I desire you to remain so, and to obey grandma cheerfully in everything.

'J. G.'

CHAPTER IX.

MANIA.

The term 'mania' is generic—Consciousness affected in mania in different degrees—Note must be made of the range of a patient's consciousness, how much he takes in of what is going on around him, to what extent he realizes his position and surroundings—Mania considered under the following heads: (1) Simple; (2) subacute; (3) acute; (4) acute delirious mania; (5) chronic; (6) recurrent; (7) folie circulaire; (8) paranoia or monomania—Premonitory symptoms of acute mania—Symptoms of the attack, mental and physical—Acute delirious mania implies a graver reduction of consciousness—The other forms described—Clinical illustrations of all the forms.

MANIA (*μανια*, madness) is a generic term which has been used rather loosely, until, like the word *madness*, its English equivalent, it has become almost synonymous in popular phraseology with insanity. This fact makes it difficult to give a correct conception of the limits beyond which the term cannot be applied. The older conception of its meaning was 'raging madness,' and even to-day many people regard this as the prevailing form of mental disease.

In a previous chapter mania was contrasted with melancholia, and it may here be repeated that, while in melancholia, as a rule, consciousness is intensified, and the patient recognises his identity, in mania consciousness suffers more or less, being reduced or altered, and the sense of personal identity may be more or less obliterated. In some cases it may be quite proper to say that the patient appears lost to all consciousness of his real self, and the identity of his surroundings; but in most cases consciousness and personal identity are not so completely altered or obscured. That there is confusion in many cases is evident to those who

watch the first signs of returning insanity. One female patient anxiously, and with a look of perplexity, accosted me thus: 'What's my name? I don't know this place; you're not John Thomson. Is my name Sarah Graham?' Sarah Graham, by the way, is her maiden name. Her married name, as with many insane women, is a secondary consideration.

This patient, when she was extremely excited, noisy, and violent, turning night into day with her yells and violent behaviour, though she called me John Thomson, was not unconscious in the sense that an apoplectic or syncopal patient is. Her senses guided her aright; but in the higher domain of consciousness there was confusion. Of mania more than any other form of insanity it may be said that in it consciousness is not logically adjusted to fact, and the sense of personal identity is at fault. A patient by name John Brown kept continually crying, 'I'm daft John Brown;' but in spite of this he did not appear to realize his position nor the fact that a crushed arm followed by amputation had brought on insanity, and his transfer from the hospital to the asylum. Here consciousness was confused; the memory of his previous identity was not impaired, but its relation to his surroundings was not appreciated or understood, though he had a vague idea that he was daft. The confusion of consciousness, though not its abolition, is evident from the following talk of an acute case. His ideas were fairly coherent, for we who observed him could see the connection. While a stenographer was taking down the words as they were uttered the patient's attention was sometimes fixed on him; he had a purgative, but it had not operated. He recognised in a dreamy, superficial way that he was in an asylum. He had been in another asylum before. The degree of oblivion was not marked, though the excitement was great.

'I am delirious; I am insane. Insanity. Oh, is the medicine coming? Jeanie, come in aside us; come in beside us, and I will lie down upon you, and I will lie down upon you. See, that is a miracle. See, that is a miracle. I am insane. I am insane. I am insane. I am insane; but I want treatment; but I want treatment; but I want

treatment; and then I am going to hard work in the grounds; and then I am going to hard work in the grounds; and then I am going to hard work in the grounds. Take that down, warders, on your paper. Jeanie, Jeanie; oh, do they mean to say that? I am delirious. Take that down, warders, on your paper. Oh, I have believed the Almighty, the Almighty, the Almighty. Oh, the medicine, the medicine, the medicine. Come, quick with it. I know that I am down at times. Oh, dinna do that. Be easier. Jeanie, Jeanie, Jeanie, Jeanie, Jeanie, come in aside us. Claw your fit. Oh, what a disgrace; oh, what a disgrace; oh, what a disgrace to George B., senior, Argyle Street, New Monkland. Warders, take it down on note-paper, on the note-paper. I am insane. Oh, doctor, Jeanie, the medicine. Doctor, the medicine, the sugar medicine, the sugar medicine, the sugar medicine.' (The medicine was sweet.) 'Home. Insanity. Insanity. Insanity. The medicine. Jeanie. I am insane, but I want to go to hard work after I get treatment. Warders, warders, take note of this, take note of this, take note of this. Doctor, take note of this. I am insane, as insane as a hatter; but I want to go to hard work; but I want to go to hard work. Oh, dinna do that; oh, dinna do that; oh, everything is over for the morning. I am insane; I am insane, Mr. A. I am falling asleep; I am falling asleep. It is the deliriums; it is the deliriums; the bees, the bees in my head. Oh, dinna kill us; oh, dinna kill us. Ay, I want medicine, the medicine, the medicine. Saviour, I am a madman. See this man. No, I am only shamming. Oh, be kind to us. Oh, doctor, the bees are gone away. Go away. Doctor, they have been cruel to us. Oh, dinna do that, Mr. Anderson; dinna do that, Mr. Anderson. I am grieved. The bees have gone away. The medicine is working. I was only shamming when I mentioned the pot, the water-closet.'

In mania there may be general mental disorder and excitement; but in its individual characters there is endless variety. The explosion may be intermittent, or prolonged with only slight remissions. A man may know his own name, and the names of those about him, and yet spit in the face of his friends, shower on them torrents of abuse, and defile the

atmosphere around him with the most filthy and obscene language conceivable. He may consciously commit immoral acts, knowing them to be immoral and wrong, and yet preach with all the fervour of an evangelist. He may exhibit a maniacal bent in one particular direction without general mental derangement.

Loss or diminution of self-control combined with intensity of feeling, thought, and action, are the leading features of mania. When the mental activities override volition, anything is possible in the way of insane speech and conduct.

Let me repeat, then, we must have regard to the degree and character of the man's consciousness of himself and of others, of his position and his surroundings. You must also test his self-control, and make note of his other mental processes—how much they are subverted or exaggerated. The dement or the stuporose patient exhibits diminished consciousness; but in mania it is different: the excessive and disordered mental activity is accompanied by an erratic, dream-like consciousness, which may be quickly responsive to some stimuli, but not to all.

If for a moment we turn aside to compare the sleeping and the waking states, the ebb and flow of mental dissolution and evolution, a clearer conception of maniacal consciousness will be possible. We regard sleep as the one extreme, implying an absolute negation of everything mental, and reduction to the lowest possible limit of life's functions. Perfect sleep may be described by negatives—no consciousness, no dreams, no sensation, no external movement. The other extreme, the waking state, is made up of positives—conscious life, mental activities, the whole machinery of life in motion, the will presiding and directing every conscious movement, a purpose in this, that, and everything. Between these two extremes there are shades and degrees of consciousness and mental activity—the dreamy state, somnambulism, delirium, mania; and the greater the delirium in mania, the greater the reduction of consciousness, as when we say that a man is oblivious of everything.

Mania may be seen in any of these forms: (1) simple, a mild ebullition; (2) subacute; (3) acute; (4) acute delirious

mania; (5) chronic; (6) recurrent; (7) folie circulaire; (8) monomania (paranoia or partial insanity).

Simple Mania.

Simple mania is difficult to describe, because it is so elusive in its manifestations. It is often seen in asylums as a mild ebullition in chronic cases, and it sometimes brings men and women into asylums who, on admission, appear to be perfectly sane. One such case was admitted recently, a woman who had some drink, got noisy and quarrelsome, abused her husband, committed a breach of the peace, and, having been certified, was sent to the asylum. By the time she reached it, no medical man could possibly certify her; the mania had passed off.

But without drink to account for it at all, men and women of susceptible mental organization may be thrown off their balance, and their character and disposition altered for the time being. Unduly elated, excited, ready to extend the hand of friendship to the stranger, and to speak out their minds with insane frankness, they are yet with difficulty certified insane, and it is not always desirable that they should be. Such attacks are often episodes in their lives which come and go quickly, and are soon forgotten.

Acute and Subacute Mania.

There is no dividing-line between acute and subacute, and while a description will now be given of acute mania, it must be regarded as approximate, because there are necessarily degrees and variations. As a rule, there is a brief premonitory attack of mental depression, and the history of physical disorder. The onset is usually gradual, but may apparently be sudden.

Sleeplessness is a frequent precursor of the attack; there may be a history of indigestion or constipation. Mental causes, worries and anxieties, often react injuriously on the physical health, which in turn tells upon the mind. Overwork is often a precursor, and acts in the same way. There is usually noticed besides sleeplessness, indigestion, con-

stipation, extreme irritability and impatience of the most gentle and considerate control; also great restlessness, a disposition to be always on the move. Sometimes, however, the excitement may take the form of prolonged, exhausting study, or we may have mania springing directly, as by a rebound, from a state of silent, motionless depression.

Mental Symptoms.—1. There is considerable excitement, which may rise and fall in its intensity, but which, as a rule, is fairly continuous day and night. According to the amount of excitement is the sleeplessness of the patient. This excitement is not, as a rule, induced and kept up by any predominant idea or feeling (except perhaps in alcoholic mania). As a rule, it is indeterminative. The patient talks, shouts, whistles, dances, sings, anything to make a noise.

2. He is a creature of impulses—like a flash there comes whizzing a soup-plate, cup and saucer, or tumbler, or something more lethal in the shape of furniture; the windows are smashed with fiendish delight, or a violent onslaught is made without warning. The manner and degree of impulsive excitement varies; it may come in gusts, the result of sensory disturbance—the sound of a door, the noise of a footstep, or a voice real or imaginary. Irregular outbursts of excitement are often due to peripheral stimuli, hallucinations, or insane suggestions. An insane suggestion was that which came into the mind of a maniac on observing a finger which had lost its nail from previous injury. He yelled and got furious, and made as if to escape from the devil, who, he asserted, had 'clawed off' the nail. The maniacal excitement may be of a religious character throughout, or we may notice patients evincing religious concern premonitory to an attack of acute mania. The religious ideas may be inconsistent; they may illustrate a most bewildered state of religious exaltation and invocation with no real basis of consciousness underlying it.

3. The patient's mind may be a wilderness of incoherence; but the degree of incoherence varies in different cases, and in the same patient at different times. The association of ideas is usually jerky and erratic, and some patients are mentally boiling over with old recollections which come

away in their speech in a rapid, continuous stream. Here the loss of self-control is most lamentable, for much is said that wounds others, and many things are said that the sane mind would never utter. One middle-aged patient met during exercise day after day a young girl well known to her; but she was too oblivious and incoherently delirious at first to take notice of her. As the incoherence lessened and the faculty of attention was being restored, she one day noticed this girl, now convalescent from her third attack, and exceedingly sensitive, and cried out, to her extreme annoyance, 'Mollie B. was always daft, Mollie B. was always daft.' *In vino veritas* is not more true than that the truth will out without mercy or compunction in acute mania, and this is one of the most distressing remembrances when recovery is assured, if recollection of the events of the attack is not obliterated.

4. The patient may give expression to delusions; he is frequently morbidly angry and suspicious; but the delusions are often of an exalted character, although by no means always. They are often utterly irrational and inconsequent. Among the insane, as in chronic delusional insanity, delusions often take root by a seemingly logical process; but in acute mania they are often mere insane suggestions and fleeting in character. One man declares that he is going to see the Queen, and 'take down all the big bugs,' and never repeats the notion again; it is an insane threat more than a delusion. Another said one day that he was engaged to the Princess Beatrice, the next that he had married the Princess Alice, and that Disraeli was his father. One young man said he was inspired by God to make such statements as this, 'God shall arise and terribly shake the earth,' and described himself as 'a man of sorrows and acquainted with grief,' which in his case was the expression of a mere vainglorious religious sentiment. This same young man combined exalted ideas with a very suspicious nature. It is always interesting to trace the genesis of delusions, and in this case it was observed that what might be described as a delusion, viz., that he believed he was next to Christ, was, as he afterwards expressed it, a mere exaggeration of his feeling of

goodness, which by reiteration grew into an exalted conception of himself.

Another young man asserted that he was 'John V. Vandeleur'; declared that he had come to his castle, and called for wine. Others evince delusions of identity, and conceive violent antipathies to certain persons. It is quite consistent with exalted delusions that the patient should be very violent, especially if he is so far conscious as to try and act up to his exalted ideal, and is contradicted and interfered with. In a great many cases, however, the delusions are not so pronounced; they are ill-formed, fugitive and fleeting.

5. Hallucinations are not infrequent in acute mania, and they may accentuate the state of excitement or the impulse to violence. They may be, and often are, of a pleasing character, being often the mere ticking aloud, so to speak, of the patient's own exalted suggestions. If they are variable and fleeting, they are of no grave significance. They are usually hallucinations of sight or hearing.

6. *The state of feeling* in mania determines to a considerable extent the character and course of the disease. It has been already said that there may be exaltation or suspicion, to which must be added anger, love, fear. It is always well to observe which of these exists or predominates. One patient vituperates all day, 'Ye b—— whores, ye d—— murderers,' and kicks, struggles, and scratches viciously at all well-meant attempts to wash, dress, or feed her. Another is amorous, and tries to hug or kiss; while another, from insane fear or dread of she knows not what, shouts in order to exorcise the unspeakable thing, or, being afflicted also with hallucinations, makes fierce efforts to escape, or, turning round, tries to rend the imaginary foe or to pulverize it with some lethal weapon.

When the patient is exalted, this can be seen more in her conduct than in the expression of delusions. One young girl is described as affecting a very dignified carriage, reciting poetry with dramatic voice and gesture, and being vain and absurdly magnificent in her toilet. Eroticism is sometimes manifested, and often leads to indecent exposure in males as well as females. Anything improper is always a temptation,

and the mere suggestion is enough to produce indecencies of speech or conduct.

7. It need, perhaps, scarcely be said that the *moral sense* is obscured or perverted for the time being in acute mania. It would appear sometimes as if the patient were fully conscious that he was doing wrong; and much is done from pure cussedness, to annoy and irritate others. The acute maniac is destructive of clothing, bedding, and furniture; micturates or defæcates on the floor, steals what he can lay hands on, exposes his person, and in his language gives evidence also that he has no regard for decency whatever.

8. *Faculty of Inhibition.*—This varies in different cases, and so also does the faculty of attention, but they are rarely absolutely lost in ordinary acute mania. One patient, who had been an asylum nurse, and knew well the routine of asylum work, would moderate her excitement when the doctor's visit was due, and break out into additional violence when it was over. Hers was a good example of double consciousness, sane and insane: the habits of asylum discipline were not altogether lost, and there was evidence that her old identity was not quite forgotten; while, on the other hand, the delusion expressed that she was the daughter of an M.P. was an idea in striking contrast, so that she was savagely intolerant of the nurses and their uniform. The sight of these was an implied reproach, a mockery of her pretended exalted position, and naturally she scowled on the nurses.

The Physical Conditions in Acute Mania.—These are determined to some extent by the particular constitution and previous habits of the individual, and any description which aims at precisely enumerating the somatic conditions should be received with reservation, for while general statements may correctly be made, the various examples of acute mania have constitutional peculiarities, and react in different ways to the mental disturbance.

The Circulation.—In many cases of limited acute mania there is very little increase in the pulse rate, and the heart's action is not excessive; but in the most extreme cases, and especially in delirious types, the circulation is very appreci-

ably excited. The pulse is usually one of high tension, but it may be small and wiry.

The temperature is rarely as high as 100°, frequently about 99°, unless there are complications; but often disorder of the *primæ viæ* raises the temperature, and, combined with a costive state of the bowels, may send it up to 102° or more.

The Secretions.—1. The skin is usually dry; but profuse perspiration is not uncommon, especially where restraint is resorted to. Sometimes the sebaceous secretion is excessive, and an offensive odour is engendered by its accumulation.

The urine is of normal quantity, and in women with hysterical symptoms may be in excess. It is scanty, high-coloured, and of high specific gravity in acute febrile conditions.

2. *Primæ Viæ.*—There is usually abundance of *saliva*, except in very acute cases, when the lips and gums become dry, the teeth covered with sordes, the tongue baked and cracked. In some cases the saliva is viscid and scanty, the watery elements being deficient. The fauces and pharynx are frequently covered with glutinous mucus, and sometimes they are very dry. In such cases refusal of food from delusion or anorexia is noticeable, and the passage of the stomach-tube is more difficult than usual. The gastric secretion may be deficient or normal, and as a rule there is a tendency to biliary disorder. Constipation, from deficient mucus secretion of the intestinal walls or deficient peristalsis, may be a prominent symptom, though regular action, indeed overaction, of the bowels is sometimes observed.

Appetite and Digestion.—The appetite may be capricious, or voracious, the patient bolting his food; but there are cases, as already recorded, where refusal of food is a grave symptom, and where artificial feeding may be necessary. The tongue is frequently furred, and digestion is often impaired. It is of the greatest importance to have the patient frequently weighed, and to maintain his strength and condition by attention to alimentation and sleep.

The complexion is frequently sallow, but sometimes flushed, and sometimes greasy, especially the forehead, and this particularly in alcoholic cases.

Sensation.—This varies in different individuals. It may be accentuated at first, but soon there is diminished sensibility, sometimes perversion, and not infrequently indifference to wounds or injuries, and even attempts at self-mutilation.

Reflexes.—These are usually exaggerated; but there is no certain rule.

Sleep, as previously mentioned, is a very deficient and uncertain quantity. It may be entirely lost, and when a good sleep is obtained for the first time, it is rarely followed by any considerable cessation of excitement, though frequently there is noticeable a lucid pause on waking, which is soon succeeded by a return of excitement. This is rather disappointing, but it is not by any means a bad sign.

Menstruation.—It must be remembered here — and the statement applies to mental disease generally—that menstruation is a factor to be reckoned with in female cases. It is frequently absent in acute mania, but when present it exercises a potent influence on the severity and character of the attack, and very impulsive attacks are common at this period. The patient is at this time more likely to be violent and destructive, and loss of all sense of decency is most noticeable.

Acute Delirious Mania.

Acute delirious mania, by some called typhomania, implies a graver reduction of consciousness. The physical conditions are more serious, the secretions are arrested, the lips, mouth, tongue, and fauces dry, with sordes on the teeth and gums. The skin is dry and sallow, but the cheeks are often flushed, the eyes are sunken, and frequently have a stony stare. Motor unrest and purposeless excitement, jactitation, and fumbling with the bedclothes, are very conspicuous symptoms. The mania is so oblivious as to become a delirious frenzy, without any apparent spark of consciousness: the incoherence is extreme; and the faculty of attention may no longer respond to outward stimuli, although I have known an extreme case, passing into a moribund state, cease her ravings and fix her eyes on the doctor who was discussing her mental condition in her presence.

Chronic Mania.

Chronic mania is the continuation of the disease in a subacute form. It is not infrequently a sequel to the acute form, for although the percentage of recoveries is high, death, dementia, chronic and recurrent manias, account for the ultimate results in many of the cases. In chronic mania there is a certain amount of normal consciousness, an ability to fix attention on things, and a certain measure of self-control, which, however, ebbs and flows; but there is noticeable distinct mental enfeeblement in one direction or another, and the memory in many cases is more or less impaired. As a rule, the physical health is fairly good, and in the work of the asylum—farm, garden, etc.—much excellent help is given by such patients. One case, a female, does well in the laundry, singing loudly and harshly, and joking, and sometimes dancing, yet all the time attending to her work. She has acute perceptions of what is going on around her, and her memory is good; but her language is tainted with wicked sexual suggestions, and exaltation and sexual suspicion are the predominant characters of her mental state. It must be remembered that here the normal individuality is more manifest, because sanity is not entirely overthrown, and therefore there is much more rational diversity of symptoms in the rôle of chronic mania.

Recurrent Mania.

Recurrent mania is more intense and oblivious while it lasts, and more resembles acute mania than chronic mania. The maniacal attacks are often as acute as we see them in acute mania; but there are intervals of quietness between, and often lucid periods intervening, during which the patient is to all intents and purposes sane. Recurrent mania is not uncommon in asylums, and when we remember that all our lives have their physiological vicissitudes, their cycles of periodicity, it is not surprising that unstable brains should have these changes—an ebb and flow of mental excitement—more intensely, and be more liable to mental failure and exhaustion.

Folie Circulaire.

Folie circulaire is another example, and a very striking one, of the tendency to periodicity in mental disease. Our first conceptions of circular insanity are due to Falret and Baillarger, and the idea contained in the name *folie circulaire* gives the nature of the disease in a nutshell, for circular periodicity, with its regularly-recurring phases, is the essential character of the disease. It is more frequently observed among the middle and upper classes, and where it is discovered among poorer, less educated patients, it does not give out the same brilliant morbid scintillation of mental aberration that strikes an observer in the wards of an asylum for paying patients. The same, of course, is true, but in a less degree, of all forms of acute insanity: The greater the intelligence and education, the greater the power and range of intellectual expression and imagination. My experience of this disease was larger at Morningside among private patients than it has been since; but this fact has struck me several times among the poorer classes, that when it shows itself in their midst it is frequently as a sequel to the melancholia of the climacteric period.

The course of folie circulaire resembles the course of epileptic insanity in this respect, that the mental changes, the ideas, the character and conduct of each phase is very similarly reproduced in the same phase when it recurs again and again. Excitement, depression, and insanity are the three phases of the circle. The circle may be long or short in different individuals, and may be completed in three months, or not for more than a year. In the first or maniacal stage there is frequently apparent marked egotism and vanity. The patient affects the air, manner, and dress of the youth. An old woman, a widow, with a grown-up family, conceives an insane amorous attachment for a young man. Another shows it in her dress, and her ideas of what is becoming in her millinery adornments. One man always begins with an exhibition of his Goliath-like strength, which is a most insane exaggeration, as he is a very commonplace athlete. He offers to fight any six men, and is most rude

and abusive. It is interesting to watch the several stages in the evolution of the maniacal outburst from the first initial symptom, which may be in a matter of toilet, as in arranging his necktie or in the careful parting of the hair. During this stage, as in all maniacal states, there is a tendency to lose weight, though some patients may thrive on it if they sleep and eat well, losing weight sometimes in the depressed melancholic state which follows. As a rule, however, the time when the patient gains weight is rather in the quiet stage.

The melancholic state is sometimes a mere reaction, though it may be exaggerated by painful reflections on the absurd and incongruous behaviour of the previous stage of mania and exaltation. Cases are not infrequent where the sober mind, moved by a feeling of depression, reflects with miserable persistence on the extravagances of the previous weeks or months, and a deepening depression ensues, often quiet and self-contained, but none the less acute. In some cases suicidal promptings may arise, and it is well to be on guard. The stage of mental equilibrium is not always well marked, and as the disease progresses it diminishes, and dementia takes its place. Indeed, it becomes difficult at last to discriminate between the melancholia and dementia of the latter end of this disease.

Folie circulaire is by some regarded as a disease which comes on usually in the adolescent period; but although it is true that thus early alternations of mania, melancholia and stupor are common, especially in patients with insane inheritance, these phases are usually erratic and unsystematic in the order and manner of their appearance, and, as I have already observed, the climacteric period is as likely to originate true folie circulaire. We have it, however, on the authority of Clouston, who enters very fully into this subject, that it has occurred in his experience from the age of fifteen to seventy-four. His experience is that with one exception it came on during the actively sexual period of life. Clouston believes that in 90 per cent. folie circulaire is a sequel of maniacal excitement.

Monomania.

Monomania.—This has already been referred to under the head of chronic delusional insanity. It is synonymous with partial insanity. It is held by some that, apart from particular delusions, the patient's mental integrity is intact. Dr. Bannister, of the Kankakee Asylum, Illinois, holds 'that there may be, and are, cases in which a single delusion or imperative conception forms the whole of the insanity either at one of its stages or during its whole course.' This may be too exclusive a statement; but in the main Dr. Bannister is right, and there certainly are limitations of mental integrity, which justify the term 'partial insanity.' Under this title comes the monomania of pride, which is not a later evolution of the chronic progressive delusional insanity, but a gradual development from pride and vanity characteristic of youth, and often associated with a too frequent worship of self in the looking-glass and at the shrine of the milliner or tailor.

Paranoia is a term freely used in Germany and America, but not much adopted in this country. It is used in Germany as synonymous with *verrucktheit* (mental derangement). No matter what may be the etymology of these words, *paranoia* is used to designate mental disease of a systematized delusional character, and cannot be distinguished from monomania. Any one of the four terms employed, monomania, partial insanity, paranoia, verrucktheit, covers a variety of cases in which the insane range is limited, and in which intellectual competence outside it still holds good. Where there is emotional and moral eccentricity, as in some hereditary cases in the earlier decades of life, the term does not fit, and in the latest stage of true monomania, the mental integrity may become so undermined that chronic mania, or dementia, may best define the mental state of the patient.

At present the meaning and application of these terms is much discussed, and the particular groups of symptoms which should properly be included under their designation have not yet been determined with anything like unanimity. Chronic progressive delusional insanity has been expiscated

from the general pot-pourri, and for the present we may content ourselves with the statement that (1) there is a distinct form of monomania, characterized by suspicion, hallucinations, and delusions of persecution and unseen agency that may be secondary to acute alcoholic excitement, or a gradual development induced by chronic alcoholism; (2) delusions of unseen agency and persecution with hallucinations, combined with partial enfeeblement in hereditary cases, such patients being in other respects amenable and fairly sociable; (3) a form of monomania, of pride and grandeur without previous ideas of persecution, the systematic evolution of vanity and egotism.

Ætiology.

Simple, subacute, acute mania, acute delirious mania—four degrees of intensity—are due either to heredity, a predisposition caused by previous attacks, shock—surgical or mental—physical breakdown, moral causes, alcoholic excess, and mental or physical exhaustion. Two or more of these causes may operate in combination.

Prognosis.

In this disease we may expect one or other of the following terminations: (1) Recovery by lysis or crisis in about 50 per cent. to 60 per cent. The recovery is complete and satisfactory in most of the cases, but in some you will be surprised to find a certain enfeeblement remaining, a lack of that complete consciousness of the fact that there has been anything wrong, or at least an inability to recognise the full significance of some things. Thus, a young girl recovered after a stormy attack of mania, gained flesh, lost entirely her muscular agitation, occupied herself usefully, but remained a little vain and silly, and, on hearing that her father and mother died during her illness, was in no way upset, and, when taken to see their graves, recognised the fact without any emotional equivalent, speaking of it in a most matter-of-fact way. In this case there was a return to the *status quo ante*, which was that of a mental weakling. Some, however, who have been previously mentally complete, do not afterwards regain their

full status. They may lack their old courage, or find their memory fail, or in some other way exhibit a change. (2) There may be a temporary period of lucidity, and then a recrudescence of the attack with final recovery. (3) The patient may pass into the state of recurrent or chronic mania. (4) The acute symptoms may subside, and monomania take possession of the mind. (5) Dementia. (6) Death from exhaustion or intercurrent disease.

In coming to a differential prognosis as to recovery, chronicity, life or death, we have as a basis for guidance to consider the following points: (1) The degree of oblivion, excitement, sleeplessness and anorexia. Can we prevent the down-grade of physique, can we check the failure of nutrition, and restore the balance of waste and repair? If so, death at least is averted. In acute, delirious mania, this is often impossible, but such cases do sometimes recover. (2) The absence of masturbation, pyrexia (above 100°), signs of organic brain disease, and fixed delusions are good signs. The presence of fleeting delusions and hallucinations is not of grave import. The case may end in general paralysis, and if the temperature is about 100° or more, without intercurrent bodily disease to account for it, the prognosis should be guarded. (3) A short, sharp onset, intensity of symptoms short of delirium, a good appetite, and a moderate or diminishing loss of weight, are favourable signs.

Treatment.

Prophylactic.—If we can detect the first warnings, and read their significance, we may be able to cut short an attack, or reduce its duration and severity. It is well, therefore, to note the following *prodromata:* Sleeplessness and nocturnal delirium, change of mental character, irritability, restlessness, morbid suspicion, a fear of something about to happen, headache. We find sometimes that some mental cause may have been operating injuriously; and we must inquire if there is a history of insanity in the family, neurotic weakness, epilepsy, paralysis, or intemperance. We may remember that there have been disturbing moral or physical causes; there may have persisted for some time a disturbance

of bodily function or some grave disease. Possibly constipation has exercised a baneful influence unsuspected for months. The patient himself may think this of no account. There is more mental disturbance due to a loaded intestine than many suppose. Therefore, if in doubt, give a sharp purge. Mental work must cease, physical exertion and mental diversion are imperative, and above all see that sleep is obtained by a hot or tepid bath, with cold to the head, friction of the body and extremities with a rough towel, sulphonal, or some other sedative, and strict attention to all the rules enjoined for procuring sound sleep. In this way you may tide over or mitigate an attack.

The treatment of fully-developed acute mania is a more serious matter. If the friends can afford it, they will want him treated at home, or at any rate out of an asylum. The case which I will now describe to you is an example of one treated out of an asylum, and away from home; but in the great majority, unless you can cut short an attack, the most you may be able to do is to mitigate its severity before the patient is sent to the asylum. You must realize that any case treated in private practice entails on the physician no small responsibility; but if he averts an attack of insanity, or succeeds in curing it at home, he enjoys a measure of success which is very gratifying, and the patient escapes the stigma of asylum lunacy. From what I have said already, you will distinguish, so far as mania is concerned, what cases you may try at home; but you must have skilled attendants who understand clearly the risks attending the case, the risk, it may be, of suicide, homicide, fire-raising, or destructive violence. Whether treatment is resorted to at home or in the asylum, the patient must have almost unlimited muscular exercise. Nature herself indicates it; for the boiling over of the centrifugal motor energy rushes through motor channels, and muscular excitement and impulsiveness is the result. Give it free vent therefore, send him for long walks with his attendant, or, better still, give him active exhausting work. If you can give him work in the open air with a wheelbarrow, or something that requires more brute force than intelligent operation, give it to him by all means. If possible, let him

have a tepid bath every night with a thorough washing down; let him be well rubbed, and at bedtime let him have a bowl of gruel or porridge and milk or other light supper before being put to bed. It is important to have the skin kept very clean, and the pores acting well, for in this way an effective drainage of effete matter results, and in addition a soothing effect is produced on the nervous system. See that the bowels are moved every second day at least; note the colour of the stools, the state of the tongue, and other indications, so as to obtain hints for treatment. Remember that there is a body as well as a mind to be looked after, and if you don't look after the body the mind will not be restored. That is so, for one risk in acute mania which you must never forget is the risk of death from exhaustion. Take the case in time; feed up well in the early days of the attack; let the repair at least be commensurate with the waste. As regards the use of stimulants, be cautious. Where you have extreme dryness of lips and tongue, sordes, a sunken expression, a very rapid pulse, and intense wakefulness, stimulants are indicated; but in less critical cases it may be found that they induce greater excitement, and you must withhold or diminish the dose. These patients are not sufficiently conscious as a rule to take solid food and masticate it properly, but liquid diet, milk and eggs, beef-tea, puddings, and gruel or porridge, are excellent kinds of food. You should have the patient frequently weighed, at least twice a week, and as long as he is losing weight endeavour by every means in your power to keep up the supply of food, even to repletion. When the acute symptoms pass off, the pendulum is apt to swing the opposite way, and then we have a state of depression; but oftener a condition of stupor, which frequently passes off, and after a lapse of weeks the mind brightens and recovery is assured. Whenever there is depression, guard against suicide. In these reactionary states tonics are indicated, and you must be careful not to allow stupor or depression to take too deep a hold of the mind, but rather, by patient and steady efforts on the part of the attendants, to lure the patient back to recovery. In some cases the acute mania passes into recurrent mania with pauses of tranquillity, de-

pression or stupor between. Do not despair of such cases, feed them well, get up their body-weight, increase their sleep by work or exercise in the open air, or even by the exhibition of bromide of potassium with tincture of cannabis indica. This treatment in recurrent cases, especially at the climacteric, I have often found beneficial. I am strongly averse to narcotic drugs in acute cases, and regard it as absolutely necessary that they should be pushed very cautiously as long as there is a reasonable hope of cure by other means. It is believed that some cases have been made chronic and incurable by the indiscriminate use of narcotics and sedatives, and I make a point of giving nature every chance for awhile, and only employing such drugs in emergencies and as a last resort.

Clinical Illustrations.

I. Acute Mania, Heredity, Loss of Child, Religious Excitement, Maniacal Attack, Constipation, Quick Recovery.

John M., hereditary history, married, æt. 34, insane three days, but attack has been threatening for a week. Lost a little girl, his pet child, six weeks previously. Being very sensitive, he felt this most keenly, and went off his sleep. By-and-by the religious consolations common at such times began to take effect on him, and many well-meaning but injudicious friends overdosed him with religious literature; his mind endeavoured to tackle abstruse problems, and one in particular, 'the second coming.' The first thing that his wife noticed actually wrong was his getting up at 4 a.m., putting on his clothes, and dressing with his usual care. She called out to him, 'Where are you going, John?' but he seemed unconscious, as if in a dream, and left the room. She hurriedly got up, but he was too fast for her. He got out of the house, went with great speed to a house on the other side of the river, singing (or rather shouting) hymns, and fell at the door of the house. The man of the house brought him back home, and on the way asked him what would have happened if the bridge across the river had been open. 'Oh,' he replied, 'I felt that I could have flown over the river.'

I arrived on the Monday, found him quiet in bed after a most excited morning; he appeared to be sleeping, but his sleep—if sleep it was—was restless, his head moving from side to side on the pillow, his eyelids blinking; his breath had a very heavy odour. It seemed to be more what he himself said it was, 'a trance' rather than a sleep. I gave him Potass. Brom., Tr. Cannabis Indica. After coming out of one of these trances, he in three-quarters of an hour got into what might be called a waking 'trance,' stood bolt upright in bed, fixed and rigid. By-and-by I got him to lie down and try and sleep; but he was now in a half-conscious and mischievous mood, would pretend he was asleep, then in a moment turn round and prefer a request for the 'po.' This he repeated with a smile frequently. Two hours later he got a few hours' sleep, then he got Ol. Crotonis in Ol. Olivæ, which worked him well, and for a few hours after he was much more sensible, and free from trances.

At bedtime he was kept in a sitz-bath, with cold to head, twenty minutes, then had gruel and sedative repeated; he slept one and a half hours till wakened in a fright with the loud rasping of a door-lock. For several hours thereafter he was very excited, frightened, and argumentative by turns, talked chiefly on religious topics, the most persistent idea being that by going to the window he could see 'Shiloh come.' To some persons he was more agreeable than to others; to me he was pleasant, and he knew me. It was plain that a change was necessary; lodgings were obtained for him near Glasgow, and he was there removed; had to be carried downstairs, but walked to the cab; called his attendant the Christ; though restless, remained quiet.

Notes of the Case in Private Lodgings.

Height, five feet nine and a half inches; weight, twelve stone twelve pounds; pale and ashy-looking; bowels confined; suffers from piles; tongue dry and covered with a thick, creamy fur, which is worse in the morning. Breath extremely offensive. Ordered one pill Colocy. c. Hyoscy. daily; three Permang. of Potash pills daily (for breath); Liq. Pepticus (Benger) with food; and a time-table and diet-

table was framed; to have at least seven hours in the open-air daily, and a sitz-bath, with cold to head, for two nights running.

The first night he had no sitz-bath; did not sleep, very excited, and jumped out of bed at usual time (3 a.m.), and was rather unmanageable. All along it has been observed that mental lucidity comes every now and again, and then all is darkness; it reminds one of a train passing through many tunnels, with more of tunnel than of daylight. He asks me a question sensibly and coherently, and before I can reply his mind is encased by morbid influence, and in another world as it were. The change from consciousness to abstraction is so sudden as to be really striking. The second night he had a bath and slept better; but in the morning, though freer from trances and fits of abstraction, he was very argumentative, and tried to take to pieces all I said and trip me up. His intellect was not acute and clear as of old, and such mental exertion clearly exhausted him. He would begin a question, and suddenly stop, saying, 'I forgot what I was going to ask you about.' Ordered two Colocynth pills next day (walked eighteen miles); must be very tired, but there is no sense of fatigue. Was evidently battling within himself the sound with the unsound mind; kept continually asking in the bath, 'Is this a delusion?' 'Is Mary dead and in churchyard?' or 'Am I dead and she living?' Had a bad night, but bath and friction evidently helped the action of pills, and with great ease he got a copious movement of bowels, filling in twenty-four hours nearly two pots. The moving of the bowels had had a most marked relation to an improvement in his mental condition.

II. Acute Mania, Second Attack, Heredity, Poisoned Finger, Dry Pack for Surgical Reasons, Long Period of Acute Excitement with Remissions, Great Loss of Weight and Sleeplessness.

Mrs. M. L., æt. 47. Medical certificates were as follows: 'She has a wild expression of countenance, and talks continually. Her language is foul, and she is very outrageous. She

says that she has been begging for two weeks, and that her money has been stolen—both delusions. She talks about killing cattle in the bed, and other things that are not true,' etc.

History.—Her father was confined in an asylum at five different times. He drank heavily, and was subject to fits. A niece of his is confined in an asylum, and a brother of patient's was insane. She was insane and confined at age of eighteen. Has always been an excitable, hard-working woman. A week before this attack she cut her hand accidently, dirt got into it, and she suffered with it very much, and lost her sleep. She was a very temperate woman.

State on Admission.—Pulse 130, small but wiry. Heart's sounds normal. Respiratory system normal.

Nervous System.—Knee-jerks exaggerated; sensibility quickened; pupils dilated, and react slowly to light; right hand greatly swollen and inflamed as the result of cellulitis, and has been incised at three places.

Course of Case.—Extreme excitement, violence, and abusive and indecent language of the worst description. Only ceases for a moment when she is out of breath. Sleepless and refuses food, requiring to be fed by the stomach-tube. Hyoscine injections for the sake of the hand.

Later.—Put in dry pack, as hand is looking bad, and amputation is in prospect if surgical rest is not obtained. Still fed by stomach-tube; steadily losing weight.

Later.—Hand improving, but excitement still severe; she is taking her food, but is very sleepless. Her language is as offensive as ever; but she seems more conscious than she was at first, for in the few lucid intervals she had in the first month of her illness she was surprised to know how bad she was. Unfortunately, these lucid intervals were only of a few hours' duration. She is now ordered sulphonal night and morning, for she has lost much in flesh and strength, and her continuous wakefulness is very exhausting.

Present Time.—She has gained weight, and though still excited, the mental disturbance is less acute, less blasphemous, more playful and she is mischievous, and more coherent. The hand has healed, and amputation has been averted.

ACUTE DELIRIOUS MANIA.

III. Sequel to Second Attack of Influenza, Rapid Course, Death.

Mrs. F. C., æt. 39, had two attacks of influenza, and became acutely excited, 'singing, laughing, crying, tearing the paper off the walls, striking at those in attendance, passing her water in bed, trying to burn the bedclothes, and wanting to throw her youngest child into the fire. Threw money into the fire, and tore her clothing.'

Such was her state before admission, and it corresponds with our description of acute mania of an intense character; but compare it with her condition in the asylum a few days later, and we find a more marked oblivion and a more delirious state.

First Note.—'On admission she was in a state of extreme maniacal excitement, but it was wild, irrelevant, crazy, delirious; continuous motor restlessness; all the limbs in a state of agitation. She kept muttering to herself indistinctly, and her attention could not be fixed. She was in a strange environment of her own. Slept little or none. Tongue very dry; sordes round the teeth, on lips and tongue; hollow, sunken eyes; dry, parched, earthy complexion. Pulse 78, small and compressible. Pupils medium, reaction sluggish; knee-jerks normal. Required to be fed by stomach-tube.'

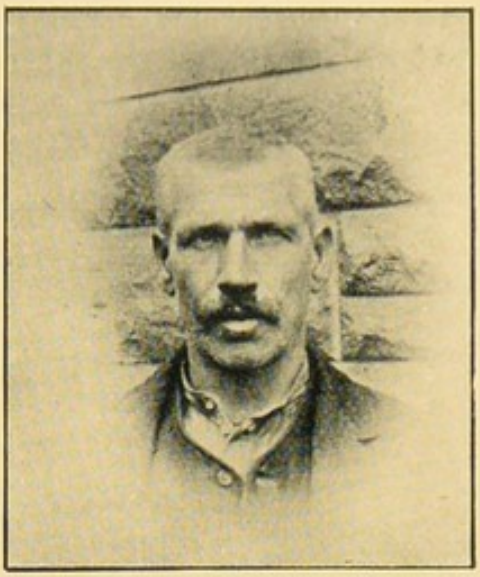
Second Note (*a fortnight later*).—'Has had sleep on several nights, but now it has entirely left her, and she requires hyoscine. Her temperature chart is very erratic, ranging from 97·2° (morning) to 101·2° (evening); still fed by stomach-tube. She seems to have hallucinations of sight, for she stares anxiously, seems in mortal fear, and puts out her hands as if to avert some fearful catastrophe. Is fed thrice daily; gets 6 ounces whisky daily. Albumin in slight amount in urine.'

Third Note (*five weeks later*).—'Much weaker; pupils dilated; reflexes gone; lips raw and bleeding; offensive breath; desquamation. Diarrhœa obstinate and profuse.

Plate III.—MANIA AND FOLIE CIRCULAIRE.



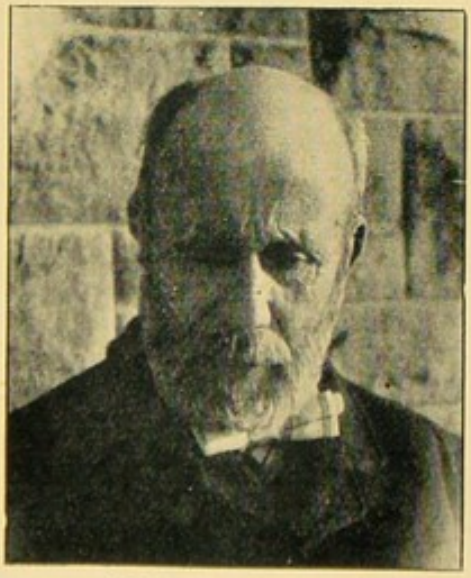
ACUTE MANIA.



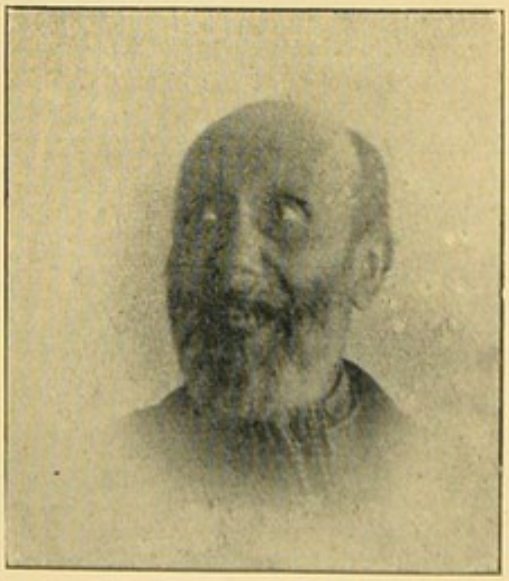
ACUTE MANIA
(ATTENTION ARRESTED).



CHRONIC (DESTRUCTIVE) MANIA.



FOLIE CIRCULAIRE
(MELANCHOLIC STAGE).



FOLIE CIRCULAIRE
(MANIACAL STAGE).

To face p. 158.

Sleep impossible even with large doses of hyoscine. Seems in a state of coma vigil. Restlessness has ceased. Pulse scarcely perceptible, ranges from 60 to 120.'

Fourth Note (a week later).—'Died this morning. Her temperature had risen during the last few days to 102° and 103°. Bed-sores broke out at last.'

Post-mortem examination revealed an exceedingly serous state of the blood, the faintest possible attachment of the dura mater to the cranium, and of the pia mater to the brain; no enteritis, but a much-distended cæcum. Enlarged, congested, and softened liver and spleen; enlarged kidneys from congestion, their capsules stripping off easily.

CHRONIC MANIA.

IV. Loss of Money, Acute Mania, now Chronic after Three and a Half Years.

Mrs. B. G., æt. 49. After a long attack of acute mania, she toned down considerably, but is still rather noisy and exalted. She has hallucinations of hearing, talks to imaginary persons, and either receives from them sexual suggestions or these arise as delusions. She replies in most abusive language; but she has an amount of insane self-satisfaction that keeps her merry and noisy all the time. She decks herself with cheap finery, and is rather vain of her appearance. She is very incoherent and irrational in general conversation, and has numerous delusions regarding marriage, the possession of money, etc. This patient's mental condition does not prevent her eating, sleeping, and working well. She is a first-class laundress.

RECURRENT MANIA.

V. A Schoolmaster: Recurrent Excitement, Exaltation, sometimes Violent.

A. G., æt. 37, insane two years. On admission he was quiet, docile, intelligent, and to all intents and purposes well, and remained so for some weeks, making himself useful and in all respects amenable to the rules of the house. Since then he has had attacks of excitement recurring every two

months. He is ill about two-thirds of the time, and well one-third. His attacks are getting worse. They come on with very slight warning. He becomes loquacious without rhyme or reason, talks incessantly and incoherently on botany, chemistry, astronomy, mathematics, 'matters animal, vegetable, mineral.' His schoolmaster's brain is jumbled up, and when the tap of incoherence is turned on he shouts for days, and only ceases when sleep overtakes him. At present he is in one of these attacks, and is more aggressive and dangerous than formerly. He begins in the morning—crescendo; he is at his worst in the afternoon, and subsides rather in the evening. His condition is one of exaltation with excitement and incoherence.

VI. A Soldier: Bullet-wound, Bullet not extracted, Several Attacks of Insanity since, now Recurrent Mania of Religious Form.

J. M., æt. 40, was wounded in Egypt in 1881, since which he has had several attacks of acute insanity, always taking a religious form. He has often been discharged recovered; but the attacks come so close together in point of time that he cannot be discharged again, his insanity being now a recurrent mania. On the verge of an attack he becomes extremely nervous, every muscle of his face quivering. Soon he gets irritable and argumentative, wants to engage in religious devotions all the time, then becomes noisy and declamatory, and wild and excited in appearance; has hallucinations of hearing, and says that God is speaking to him. His excitement goes on increasing until restraint is absolutely necessary, for he becomes violent and dangerous.

He is a very devout Catholic, and between attacks is allowed to go to chapel on Sundays by himself. One Sunday lately he went off apparently all right, but did not turn up at night. He got excited, but not dangerous; travelled from place to place about forty miles in twenty-four hours, and at last was brought back by the police. This free, unrestrained exercise seems to have worked off the excitement, and this has been his shortest attack on record.

FOLIE CIRCULAIRE.

VII. Mania followed by a Period of Mental Enfeeblement, developing ultimately into Folie Circulaire.

A. L., æt. 51, insane for about twenty years. He has for the last ten years passed through cycle after cycle of folie circulaire. When he is depressed he says he is dying; when he is excited he says he is the strongest man in the world. There is a want of mental grip in his case: he is rather childish and cowardly when excited. The cycle begins thus: For about ten days he refuses to get up in the morning, complains of pain in back and sides, refuses breakfast, but is all right in the afternoon. At the end of that time he gets up in the morning before the other patients, begins to boss them, and tries to get them out of bed. He develops at once his delusion that he is a second Goliath. In this stage he masturbates, is noisy, offensive in his language, and ready to fight anyone. This lasts twenty-four to twenty-eight days. Then he becomes dull, stupid, lazy, and will sleep all day if allowed. The stuporose state continues about five weeks. As the disease progresses we observe that the stuporose stage lengthens, and the excited periods shorten. The melancholic stage lasts three to four weeks, but is not active except for ten days before the maniacal attack.

ALTERNATING INSANITY.

VIII. Melancholia at Climacteric followed by Mania with Exaltation.

Mrs. C. M., æt. 48, widowed. Very much emaciated; won't enter into conversation; refuses to take food or medicine for fear of being poisoned; prefers to die. Has threatened on several occasions to commit suicide. Is afraid that she may be impelled to injure some of her family. Cannot sleep at night. Walks the floor all night, her melancholy is so unbearable. Exophthalmic goitre of small size. Her attack began with religious scruples and misgivings, and she neglected her health. She recovered in six months.

She was well for four months, then she became rather elevated, gradually developing into a state of exaltation with delusions of grandeur. She became restless, would not stay at home, went to sales and bought what she had no need and could not pay for. Thereafter her talk was of marriage. She entertained the idea that she was Lady M., and was about to marry a millionaire. She lost flesh to an alarming extent while her excitement lasted. Under generous diet and tonic treatment she gained weight, and recovered in six months. She is now—three months later—unnaturally quiet, and looks like one passing into a state of depression.

IX. Monomania of Pride.

M. M., æt. 27, was a dressmaker. She is a very intelligent girl; but she has developed by slow but sure degrees from the simple vanity of youth, continually stimulated by draping her handsome figure in a first-class dressmaking saloon, until now she has one all-absorbing idea—her exceptional figure and her good looks. She will spend all day looking in the glass, dressing and redressing herself, posing in various attitudes and admiring herself. Behind all this, however, there is a feeling of regret and sadness that she should have allowed pride of appearance to take possession of her to such an extent that she has become a useless member of society. Here is a strange morbid inconsistency of character.

CHAPTER X.

ANERGIC STUPOR, DEMENTIA, INSANITY OF MASTURBATION, MORAL INSANITY, IMPULSIVE INSANITY.

A distinction drawn between stupor and dementia, illustrated by a description of the experiments of Binz on fresh nerve-cells—Reaction time—Anergic stupor—Dementia—Masturbation as a cause of insanity, and as a symptom—Several stages and diversities of insane character—Physical changes—Moral insanity—Opposing views on this question — Impulsive insanity — Self-mutilation — Suicide—Homicide—Sexual perversion or excess—Destructiveness—Kleptomania—Pyromania—Dipsomania—Clinical illustrations.

In the previous chapter dementia was given as a sequel of mania, and in Chapter VIII. the melancholic form of stupor was described. It is now necessary to distinguish between stupor and dementia, because writers and teachers use these terms differently. According to some, melancholic stupor is the only stupor in the insane state; and what is called anergic stupor by Newington and Clouston has been regarded by others as acute or primary dementia. These terms are therefore convertible, but not so the generic term *dementia;* and as confusion is likely to arise, for true dementia is something graver than stupor, the use of the designation *acute* or *primary* dementia should be withdrawn.

In order to understand the distinction between stupor and dementia, we may take for illustration the experiments of Binz with morphine on nerve cells (Lectures on Pharmacology, New Sydenham Society). He found that when morphine, a neutral solution of chloral hydrate, or the vapour of chloroform was applied to fresh brain, opalescence or clouding of the brain cells took place. The whole process

appeared to resemble a coagulative necrosis, for in similar experiments on the protoplasm of infusoria, which were treated with toxines, it was observed that the protoplasm soon became clouded, and the movements sluggish, while if the toxic action was continued, the protoplasm became granular, and the movements ceased. Recovery may occur in the first stage if the poison is quickly washed out, but not from the latter stage. The one may be compared to the stupor or sleep, the other to the death, of the cell. These distinctions are well seen in the mental down-grade of the masturbator. He has many recoveries from stupor, but they are less and less complete as time goes on; necrosis is making headway, and dementia is the final negative result.

In the sleep stage, therefore, we have the condition analogous to stupor. In the death of the cell we have the condition analogous to dementia. Stupor, therefore, may pass into dementia; but as long as the condition is one of stupor we may hope. For this reason anergic stupor is a better term than acute primary dementia, because recovery may still take place; and the term 'dementia' will be reserved for actual death of mind in greater or less degree, for some flickering of mental activity is always possible till the last stage of all, when death is on the threshold.

It is very important now for us, before going further, and preparatory to doing so, to discriminate between melancholic stupor and anergic stupor. I must draw your attention to a very important means of gauging in some measure the mental activity of the insane, which, though specially applicable here, is useful in all clinical studies of mental disease. This mental gauge refers to the speed of mental processes, and is called 'the law of mental reaction.' A summary, but quite a sufficient one for our purpose, may be quoted from Ladd's 'Physiological Psychology' (pp. 470, 471). 'Exner finds seven elements in all reaction-time: (1) An action of the stimulus on the end-organ of sense preparatory to excitation of the sensory nerve; (2) centripetal conduction in this nerve; (3) centripetal conduction in the spinal cord or lower parts of the brain; (4) *transformation of the sensory into the motor impulse;* (5) centrifugal conduction of the impulse in the spinal cord; (6) centrifugal

conduction in the motor nerve; (7) setting free of the muscular motion. Of these seven factors, however, the fourth is most interesting to psychology. It may properly be called *psycho-physical*, as distinguished from more purely physiological time. The other six elements (with the exception of the first, on account of difficulties inherent in the experiments), have been determined with some degree of definiteness (see Part I., Chapter III., on the Speed of Nervous Processes). It is, then, *theoretically* possible to ascertain the amount of these six and subtract them from the entire reaction-time; the remainder would be the interval occupied by the *central cerebral processes* (that is, by No. 4). Thus, Exner assumes sixty-two metres per second as the probable rate of conduction in both sensory and motor nerves; and in the spinal cord, eight for the sensory and eleven to twelve for the motor process. He thus calculates that about 0·0828 seconds is the "reduced reaction-time," or interval occupied *within the cerebral centres* in transforming the sensory into motor impulses, in the special case of reaction from hand to hand, where the whole reaction-time is 0·1337 seconds. The uncertainties of all such calculation, however, occasion the demand for other methods of determining the strictly "psycho-physical" portion of reaction-time.'

Difficulties will always be met with in testing the reaction-time of the insane, even with the best instruments that can be devised for the purpose. In actual practice distinctions sufficiently approximate can usually be drawn; but as science demands measurements, and they indicate more trifling variations than can be appreciated by the unaided senses, it is probable that a routine of measurements will yet come into vogue in asylum practice. In all cases, however, there is the difficulty of truthfully estimating the time absorbed by six of the seven elements, which, though accurately ascertained in the case of animals by experiment, must always be a matter of doubt because of differences in the personal equation of each individual studied. For the present we must reckon the total of the seven elements, and compare sane with insane in a large number of individuals, and with careful elimination of emotional elements and distracting stimuli.

Despite the inherent difficulties of the subject, I need scarcely say that the reaction-time is a clinical factor of importance. Every man and woman has a reaction-time which varies, slow to respond at one time and quick to respond at another; but in mental disease the variations are much more pronounced; and in stupor the term 'reaction-time' may be practically a dead letter, for response is usually *nil*, or next to *nil*. The quicker the time-reaction, the less the stupor; the slower the time-reaction, the deeper the stupor.

The impression seems to prevail that anergic stupor implies a more complete loss of consciousness than obtains in melancholic stupor, the mind being often for a time at least null and void; and if recovery takes place, there is no recollection of events synchronous with the stupor, nor any evidence that there ever was any perception. The patient figuratively is a mere organic automaton; there is complete immobility, and no resistance is made to passive movements. The circulation, as in melancholic stupor, is very weak; œdema and cyanosis of hands, feet, and other terminal parts results from feeble cardiac action and the absence of muscular activity.

The onset of anergic stupor is usually sudden, *not gradual*, as stated by Savage in his scheme of comparison between melancholic stupor and primary dementia (anergic stupor). This statement, that the onset of anergic stupor is gradual, is contradicted by a case which he reports a few pages further on ('Insanity and Allied Neuroses,' p. 210). It was the case of a young farmer, with inherited mental taint, who was frightened by some fireworks thrown at him as he went along a dark lane. He got home, but remembered nothing about the journey, nor his actions after he was there. When taken out of bed he stayed where he was placed. At intervals he was violent, and seemed to see some dreadful object. His mind was a total blank from November till June 1. He was roused by galvanism, and recovered. The hallucinations of sight prove that consciousness was not absolutely abolished, but memory probably was. According to Newington, the onset is usually rapid.

In reviewing my experience of stuporose patients in order to find a definite case, on looking up old case-books, and carefully scrutinizing the clinical material at present under treatment, I find it very difficult to decide on cases of anergic stupor; but one case looms out clearly from the others, though on searching the records I find that there was not absolute unconsciousness, and as she has not recovered we are unable to say much of her memory. She certainly learned to find her way about in the wards, but an idiot of the average type would certainly learn more. It is interesting, however, to observe that, like the case described by Savage, and which I have just quoted, she was afraid, and saw dreadful objects—rats in her room, a dog in the bed, etc. The fact that there may be delusions or hallucinations in these cases, or an unaccountable dread, would, according to Newington, place them in the category of melancholia with stupor; and I confess to a strong conviction, the more I have studied these cases, that true anergic stupor of sudden onset, without mental activity of any kind, entire suspension of memory, a complete negative existence, is exceedingly rare.

The best examples I have seen of anergic stupor are those following fevers, and in these cases mental and physical negation is most marked. In maniacal cases, especially in women, a state of mental torpor supervenes when the acute symptoms subside. This state is often temporal and disappears, the patient waking up to normal consciousness; but it may deepen and pass into dementia.

Two ways of waking up may be noticed in all forms of stupor. (1) The usual way is by slow degrees, a gradual recuperation of all the powers, physical and mental; but the recuperation may reach a stage where it stops short, and reveals to us the disappointing fact that, though the patient now walks, eats, dresses herself, and engages in occupation, delusions, insane conduct, or absurd conceits still obtain. It may be otherwise—full recovery may take place. (2) A second way in which the darkness of mind is dispelled is by more rapid recovery—a sudden recovery may take place which may be complete, or only apparent at first, until the

actively-insane mind reappears. Many cases of stupor are very disappointing. Even with recovery from stupor, there is still something wanting in many cases.

Stupor of anergic form in its most profound state is seen in the epileptic after-seizures, and it may last for hours, sometimes longer. It is seen also incidentally in the course of general paralysis, after excessive masturbation, following attacks of excitement, especially during puberty or adolescence, and, as already mentioned, usually prior to recovery from maniacal attacks.

The treatment of all forms of stupor is the same in principle, viz., to treat symptoms. For cold hands and feet promote warmth, and as there is so little energy manifest, give passive exercise and conserve the strength and physical condition as much as possible. Individualize the patient; reach, if possible, his dormant consciousness, and rouse it. These cases often require very great patience and perseverance. Galvanism sometimes does good; friction, forced exercise, everything that will rouse him, helps to keep the sleeping cells from passing into the death state of dementia. Feeding and attention to the bowels are very important necessities.

Dementia.

Dementia means mental wreckage, the result of storms of mental excitement or the ravages of organic disease. It is a law of Nature that prolonged exercise induces fatigue, and prolonged excitement induces exhaustion. Mental exhaustion is evinced by more or less stupor, but prolonged continuance of mental excitement may exhaust and disintegrate the mental faculties beyond hope of restoration. Dementia is never absolute and complete; the mind is still afloat, its light feebly burning, but the degree of wreckage in a hundred dements varies as much in quantity as we can possibly conceive. It is often very difficult to estimate, for who can tell how much of consciousness and mental activity remains in these silent, inert human beings who automatically rise and dress in the morning, go to meals and eat to repletion, go out to work, or walking exercise, and so on, silently, without

comment, or evident interest in events, living their negative lives from day to day?

Sometimes we are astonished when a man who has been practically a cipher for a year or more prefers a request or interjects a remark, and we wonder if he has been a silent philosopher all the time; but in such cases it is often a feeble flicker of mental life just for a moment, a flicker which dies out as suddenly as it appeared.

Nevertheless, we can discern degrees of dementia, and the extreme cases are more likely to be such as, having inherited unstable, imperfectly-developed brains, have broken down under the strain of excitement, having no mental residuum to fall back on. Dementia which follows the excitement of middle life is less common, and, as a rule, it is less extreme. In the industrial community of an asylum, there are always dements of this class, who have not lost all their acquisitions, whose memories are not denuded of all that they had previously learned, and who, while no longer receptive of new impressions, no longer interested in events, are yet able to labour with their hands, and automatically to employ themselves in various kinds of labour.

Dementia may show itself in loss of memory, inability to comprehend or answer any but simple questions, loss of power to think out questions, loss of attention to all but mechanical duties, loss of affection, diminution of will-power, reduction of the moral sense. It is noticeable, however, that old acquisitions and habits are retained more persistently than recent ones; and a man's memory may be good enough for routine office work, though he takes no note of his surroundings, knows not the day of the week or what he had for breakfast. We find many such patients, who do not know the names of their doctors or attendants, or the names of the other patients, and some are still competent in their calling, as joiners, masons, labourers, clerks, etc.

Dementia may be regarded as of two kinds: (*a*) Consecutive—consequent on prolonged excitement or epileptic disturbance; (*b*) organic—the result of gross brain lesion. In the latter the degree is usually more marked, and, as a

rule, it is not stationary for a long time as in consecutive dementia, but progressive, and ending more rapidly in death.

Insanity of Masturbation.

Masturbation, or self-abuse, was an evil of ancient as well as modern times. The Bible gives the first example, whence the term Onanism. The practice of masturbation if persisted in is usually regarded as evidence of neurotic inheritance; but it is probable that its indulgence is more extensive than among the merely neurotic, and that many cases of this secret vice are found out of asylums. One medical man who had become temporarily insane confessed to this habit, and without any qualms of conscience, or any sense of shame, defended it on physiological grounds.

It is exceedingly common in the insanities of puberty and adolescence; in the first, and perhaps also in the premonitory, stage of general paralysis; it is sometimes noticed in puerperal insanity; but probably it results in the latter from peripheral irritation, for it is indulged only temporarily. According to Yellowlees and others, it is frequently observed in epileptics; but I cannot confirm this statement beyond the fact that it is practised by epileptic idiots and imbeciles, and sometimes unconsciously when waking out of the post-epileptic stupor.

Masturbation is much more common among males than females, and this is what might be expected. It may be that among women of the indolent class masturbation is more common than I have known it; but experience of the two sexes, so far as I have learned from others, is emphatically that of Trousseau, who held that the sexual craving is feebler in women than in men. It is more difficult to discover the female masturbator, and she is more likely to be detected by a certain gross sensual expression and physiognomy before the practice is discovered.

As far back as 1861, Dr. Peel Ritchie made a very elaborate inquiry regarding masturbation 'as a frequent cause of insanity,' and communicated his results to the *Lancet*. The basis of his investigation was the case-books of Bethnal House Asylum for the preceding fifteen years, and the inquiry dealt with a total of 1,345 male patients. The propensity

was found to exist in 8·84 per cent.—12·52 per cent. for private patients, and 6·59 per cent. for pauper patients. The census among pauper patients in my experience is larger, being 12 per cent.

Of either class it was found that nearly two-thirds became insane before the age of twenty-five. As regards occupation, it was found that indoor occupations supply a larger proportion of patients than outdoor. Contrary to what might be expected, the town furnished more cases than the country.

The more frequent the practice and the deeper the hereditary taint, the greater the chance of insanity coming on; but we find in many cases that other causes are at work also—heredity, overstudy, drink, the period of life, etc. We further find that masturbation is a symptom which appears during an acute attack of insanity, and disappears with the first signs of convalescence. The immediate effects of vicious sexual indulgence are physical exhaustion and mental indolence, and only when recovery takes place is the habit resumed. Mental excitement is often associated with activity of the sexual nisus, and collapse and quiescence with its abatement or suspension.

If masturbation becomes a perpetual habit, we find the candle burning at both ends, for we have a condition of waste (loss of semen and wear of the nervous system) on the one hand, and a weak, irregular digestion (in other words, inefficient repair) on the other. *The first mental signs* of its evil influence are depression and hypochondria. The vice necessarily means solitude and secrecy, and if the man has any moral sense at all, it means self-reproach and loss of self-respect. Whether naturally or as a result of it, the victim is introspective and chicken-hearted. He is morbidly apprehensive of evil befalling him, and he studies his symptoms and is the prey of the charlatan. *The first physical signs* are anorexia, atonic dyspepsia, breathlessness and palpitations, and peculiar head sensations. The skin is pale and cold, the circulation sluggish, and the blood impoverished. The body is easily exhausted and very susceptible to disease, such as phthisis, boils, skin eruptions, etc.

As time goes on, mental changes are still more noticeable.

If not before, there are now noticed a shyness, an averted gaze, perhaps a sulky manner, a drooping of the head, a slovenly gait, and not infrequently a hang-dog, stupid, or sullen expression. The skin is now decidedly pale, and the physical symptoms of the earlier stage more pronounced. Sometimes a hectic flush is seen on the cheeks; the eyes, which may flare up with fire during excitement, are usually dull, glazed, and expressionless; the pupils are dilated and sluggish. Muscular softness and flabbiness is well marked. The patient refuses food from sickness and anorexia; the bowels are constipated; the urine is usually diminished in quantity, pale, and of low specific gravity.

So far the masturbator may escape confinement as a lunatic, but he is now dangerously near that stage. The mental condition in the state known as insanity of masturbation, while possessing certain characteristics, discloses many diversities according to the individual, and other causes of insanity operating along with masturbation. The remaining observations, therefore, must be taken as by no means exhaustive. A full résumé is out of the question, for masturbation is Hydra-headed in its relations and manifestations.

The mental state may still be one of depression and hypochondria. The loss of self-respect, the pitiful self-reproach, in some is a most unenviable condition. One man keeps repeating, 'I'm no man at all; I'm no man at all.' Another man tells us that he's not 'John Thomson' (John Thomson is his name), that 'the real John Thomson is a decent fellow, a hard-working man, who works for his wife and bairns.' It seems as if some men have been forced by overmastering impulse to do things which they utterly loathe, and do not recognise as consistent with their moral identity.

The mental depression may take the form of religious melancholia, almost amounting to frenzy; indeed, in some cases a frenzy of impulse overcomes them, and the offending member may be severed. Suicidal impulse is quite within the range of probability with such cases. The mind may dwell on the religious aspect of things, and be coloured accordingly, so that it becomes a prey to religious delusions

—*e.g.*, that he is a lost soul, that God's angry frown and stern denunciation are being manifested, etc.

Hypochondria develops apace in some minds, and is fed by the solitary and unsociable habits of the individual who lives within himself, and is selfishly engrossed with his own sensations, imagined or real.

Mental excitement of a violent, impulsive character may break out at any time. It may be continuous and dependent on other causes besides the direct stimulus of masturbation; but we can recognise two forms due directly to the latter cause—one holding out for days, the other an immediate and sudden result of the act itself. The latter is often homicidal; a revulsion of feeling seems to take place, a swing of the pendulum the other way; an insane fury, fierce and irresistible, possesses the man, and violence is the result.

Sexual antipathy is freely manifested by some, and silently nursed by others; a fierce, unreasoning hatred of the other sex, and delusions in this respect, are very prevalent. One man's delusion was that a woman and her daughter put him under 'a bleeding spell in the privates.' Others accuse women of 'sucking their blood,' 'drawing their guts,' etc.

Changeableness of disposition, restlessness, want of fixity of purpose, are also characteristic of this disease, and account for vagaries and reactions from one extreme to another which are associated with insanity of puberty and adolescence, and have their origin in the reduced stability of the nervous system which masturbation is in large measure accountable for.

The excitement manifested is often purposeless, a mere noisy verbigeration, automatic motor excitement, spurts of energy, and vague wandering impulses. As interludes come mean treacherous acts of violence, with no apparent consciousness or recollection. Sometimes it is impossible to resist the conclusion that the patient is not so unconscious as his expression indicates. What the man thinks or how much he mentalizes no one knows. Mischievous propensities sometimes break out. One fellow seemed always on the watch for opportunities to irritate and annoy. He took delight in smearing with his spit, or dirt from his pockets

or the dustbin, what was newly cleaned and polished. When the dining-hall had been freshly painted, he smeared the ceiling with meat and potato, which stuck fast in the wet paint.

Hallucinations are particularly common in these cases, sometimes suggested by fear or suspicion, but often the result of nervous depression. They especially exist in relation to sight and hearing. They are not always displeasing, but it may be taken, nevertheless, as correct that pleasing hallucinations are in the minority. One silent fellow who never speaks intelligently, and rarely can answer a question, stops suddenly in his work in response to hallucinations, and swears at some imaginary person, angrily ordering him to 'get out of that.' Another hears the words of a *spell* being uttered to encompass his doom, and sees women laying hot plates on his breast.

Many other symptoms might be described, but as the rôle of the mental symptoms is not always played out in the same way, and they are so various that anything approaching finite description is impossible, a summing-up of further mental changes will suffice. Incoherence is well marked in many when the disease advances. Inability to form thoughts or give them speech—a cutting abruptly short of sentences which begin with a show of intelligence—this is very noticeable : the thought is but a flash in the pan, and the man no sooner begins to utter it than the motor energy is exhausted and speech fails. There is here all the evidence of advancing stupor, which ultimately passes into dementia.

The physical symptoms become more marked in some cases, while others improve because of the restraints of asylum discipline and a regular hygienic life. Refusal of food may occur early from utter loathing of food, or from delusions which inhibit desire for food and inhibit digestive activity.

I would here refer to one rare type, appearing during adolescence, in which masturbation has ceased, and extreme emaciation and exhaustion have rapidly supervened, progressive atrophy going on for a time, then physical recovery, but not mental. In four such cases a low type of inflammation

over one knee-cap came on (the result of prolonged attitudes of prayer and supplication). In one case a gangrenous slough shelled out from it, and the patient is now physically well, and has resumed his vicious indulgence. In other cases the trophic neurosis shows itself in the form of small superficial ulcers, usually in the neighbourhood of joints (the shoulders and toes have been so affected), but the prognosis is not so good in such cases.

The masturbator is unsociable, lies long in bed, especially avoids the opposite sex, and frequents the water-closet or some dark corner where he can pursue his evil deeds. The masturbator who begins the practice in middle life is not such a degenerate, and not quite so unsociable, though he may have sufficient shame to prevent his exhibition of any self-assertion.

In concluding this subject I must strongly emphasize the importance of recognising that masturbation may be a cause of violence, excitement, or escape. The act of masturbation is attended with an appreciable rise of temperature, varying from one to two degrees in the first half hour. The excitement physically is often considerable, and it will be found on inquiry that usually, but not always, some form of mental excitement follows the act. It may take the form of immediate, sudden, blind fury; whether in obedience to hallucinations or pure impulse it is not always easy to say. It may take the form of excitement, a state of unrest, rhythmic movements of apparently automatic character, or, lastly, the act of masturbation may and does frequently lead up to attempts to escape, either from a feeling of restraint and oppression, a desire for freedom, or as a mere act of motor excitement.

The treatment of masturbation may be successful if there is moral strength left in the patient, or if he is young, and not really dominated by the exercise of this passion; but in many cases when it comes under medical notice, the passion has become a second nature, and there is little hope. Removal of the testicles and ovariotomy have been unsuccessful, and the only possible remedy in such cases would be division in the male of the sensory nerve of the penis, and in the female an operation analogous thereto.

The evil habit is increased by stimulants and certain foods. For those who are too susceptible to the sexual craving, milk diet is prescribed. Being curious to know whether meat diet really was more stimulating than milk, I subjected three male masturbators of the most confirmed and vicious character to a series of dietetic experiments, consisting of a dinner of either (1) meat, (2) fish, (3) Irish stew, or (4) rice, milk, and fruit tart. After the first three diets these patients frequently masturbated, but in no case, so far as I could learn, after rice, milk, and fruit tart, which had been given twenty-three times. Whatever difference of opinion may prevail as to certain articles of diet being stimulating to sexual function, and others non-stimulating, my investigations have strongly confirmed me in the opinion that regulation of the diet is a matter deserving of careful attention.

Moral Insanity.

Synonyms: Moral Imbecility, Reasoning Insanity (Folie Raisonnante), Affective or Emotional Insanity. This form has been regarded by many, especially by lawyers, as mythical. There is a natural anxiety lest the admission of this term into medico-legal use, and the acceptance of it as signifying an actual fact, should create a loophole of escape for criminals, and especially those of a villainous type.

The late Dr. Hack Tuke, in his 'Dictionary of Psychological Medicine,' has not taken up an absolute position *pro* or *con*. He first gives the definition of Prichard, viz., 'a disorder which affects the feelings and affections, or what are termed the moral powers in contradistinction to those of the understanding or intellect.' Dr. Tuke in answer to these legal opponents of the doctrine of moral insanity quotes Herbert Spencer's statement, that in the higher evolution of feeling (the moral nature) an arrestment may occur which, leaving the intellect and lower emotional nature intact, results in moral imbecility alone, or in a waywardness of moral conduct from youth upwards without marked disorder of intellect.

The complex relations of the mental powers is such that it would be hazardous to dogmatize in the matter, and while both Clouston and Savage accept moral insanity as a fact *per se* without hesitation, the following propositions of Hack Tuke may be taken as very carefully hedging the application of the term, although the fact of the existence of such a disease as moral insanity is not disputed: (1) The higher levels of cerebral development which are concerned in the exercise of moral control, *i.e.*, 'the most voluntary' of Hughlings Jackson, and also 'the altruistic sentiments' of Spencer, are either imperfectly evolved from birth, or, having been evolved, have become diseased and more or less functionless, although the intellectual functions (some of which may be supposed to lie much on the same level) are not seriously affected, the result being that the patient's mind presents the lower level of evolution in which the emotional and automatic have fuller play than is normal. (2) No doubt it is difficult to lay down rules by which to differentiate moral insanity from moral depravity. Each case must be decided in relation to the individual himself, his antecedents, education, surroundings, and social status, the nature of certain acts, and the mode in which they are performed, along with other circumstances fairly raising the suspicion that they are not under his control.

The most frequent departures from the normal moral character are to be found in the young and adolescent, and such departure is a characteristic, frequently, of hereditary mental degeneration. *Moral imbecility* is a term which may be applied to those who never have risen to an average moral and intellectual standard, while the term *moral insanity* should be applied to all cases, whether inherited or not, in which moral degeneracy is the prominent unique symptom.

The pace of moral evolution varies. Some children are precocious in this respect, and decidedly deficient later on, while those who are slow to make progress in moral development at first, often arrive at a higher moral standard later. Some apparently bright children, whose intellectual capacity is quite up to the average, exhibit a moral defect

right through life ; and just as some people laugh when they should cry, and cry when they should laugh, their emotional connections being transposed, so some people confound falsehood with truth, and never understand that there is any such thing as a moral significance in truth or falsehood, stealing, cruelty, or disregard of parents.

We know and meet every day of our lives, members of families who are the so-called black sheep, who reap where they have not sown, and are entirely devoid of the altruistic sentiment which has regard to others as well as to ourselves. Some we know, perhaps, who have broken nearly all the commandments of the decalogue, whose ability is undoubted, but applied to ignoble ends. Are such morally insane ? Every case must be judged on its merits. We may answer for some in the affirmative ; for others we can be justified only in saying that they are borderland cases.

In helping to decide, we may look at the matter in this light. What was gained by such action or conduct ? and how was the offence committed ? The lie may not have been worth telling, for all that could be gained. Some people tell lies knowing it to be wrong, but their instinctive nervous dread has become a second nature from childhood. Others tell lies without any moral sense, and for the most trivial faults. Some steal utterly useless articles, openly, without any sense of wrong-doing, and as generously give them away to the first person they meet. The sin of covetousness is one phase of original sin, though it may not be pronounced in the majority ; but the desire for possession of what does not belong to us is sometimes a very active impulsive affection which leads to acts of kleptomania with no other evidence of insanity.

Evidence of moral breakdown or perversion, especially deceitfulness, is manifested frequently in the victims of intemperance, whether due to alcohol, opium, or other narcotics ; and here we have often an example of pure moral insanity artificially induced, the intellect being frequently intact, though eventually it is obscured by the long-continued and excessive use of these poisons. There is no more

remarkable proof of the moral degeneracy induced by drugs than in opium-smokers.

As a rule, it may be stated there is rarely a distinct reasonable and adequate purpose to be served by the moral offences of such patients, and as the questions of motive and purpose are terms which a lawyer can understand, they are competent questions for us to consider in dealing with cases of moral insanity.

Impulsive Insanity.

From the consideration of moral insanity we are naturally led to the study of insane impulses, which are frequently the outward manifestation of moral defect or degeneration, but not always so. Impulsive acts often bring the culprit within reach of the law, and over the allegation of insanity in these cases very great and unseemly wrangling occurs from time to time. The natural attitude of the judge is that a man is presumed to be sane until he is proved insane, and there is nothing in the act itself to decide in the negative. In some cases the only defence possible is irresistible insane impulse; but no lawyer will accept this alone, and all the evidence direct and subsidiary, some of it perhaps rather far-fetched, that can be piled up is produced for the defence. Into medico-legal questions we shall enter more particularly later on.

What we must here take into account is the nature of insane impulses, and their associated nervous, mental, or moral aberrations. Insane impulses may be those of self-mutilation, suicide, homicide, sexual perversion or excess, destructiveness, kleptomania, pyromania, dipsomania, etc.

The patients most liable to these impulses are idiots, imbeciles, epileptics, and masturbators, who especially manifest sudden outbreaks of anger and violence, destructiveness of furniture or clothing, self-mutilation or sexual perversion. The best example of pure, irresistible impulse is seen in the homicidal attacks of the epileptic paroxysm, sometimes, indeed, without paroxysmal excitement at all. Here there is blind, unreasoning fury, though it is well known that epileptics may deliberately plan a murder.

It is often very difficult, even impossible, to arrive at a physiological explanation of impulse, and this especially with destructive patients. The destructive impulse is seen in idiots and imbeciles, in mania, general paralysis, and in dementia. It suggests a reversion to a lower type, in which destructiveness is predominant, and in which the constructive idea has not been appreciably developed.

The irresistible impulses of most serious import are the suicidal and the homicidal, and they may be taken together. In the same patient the one may succeed the other, and this is true of irresistible impulse following on masturbation and alcoholic excess. It is a safe rule to take for guidance, that where there is mental depression, or hallucinations of hearing of a commanding character, suicide should be prepared against. Homicidal impulse is often an immediate sequel of sexual disturbance—menstruation, masturbation, or sexual excess. At such times an explanation might be difficult to obtain; the man who has done the deed seems oblivious; but if he were conscious, or had any recollection whatever, it will often be found that a strong sexual antipathy has arisen after the sexual act. Homicidal attacks are common under the influence of alcohol, and also as a sequel to epileptic seizures, though sometimes without seizures and from sheer high-strung nervousness and sensory irritability. In this latter state the gentle rubbing of shoulders against him, the most apologetic contradiction, will rouse the impulse, like a spark to gunpowder.

The sexual appetites are sometimes impulsive to an unaccountable degree, especially under alcoholic stimulation, and the victims of masturbation when interfered with in the midst of its indulgence are often very dangerous. Sexual desire becomes an irresistible impulse in many reputedly sane, but in senility there is a rejuvenescence, and it may assume then a distinct, abnormal, and sometimes most depraved character.

Kleptomania is found as an early symptom of general paralysis, and as an occasional symptom without any other signs of mental disease. Pyromania is found to be a symptom of adolescent insanity and puerperal mania; and of dipsomania

it need only be said here that it is a disease characterized by a periodical recurrence of an irresistible craving for a stimulant or narcotic.

Whatever may be the nervous or mental condition associated with impulsive seizures, we have in any or all cases to inquire (1) as to the consciousness of the individual during and after the attack, the degree of consciousness, and the after-memory of the event; (2) as to his usual amount of self-control, and as to his personal history in this respect; (3) as to the immediately exciting cause.

In some cases there is apparent oblivion during the act, as much as in a state of somnambulism. In others there appears an evident and strong purpose, as in the remarkable case published by the late Dr. McLaren, of Larbert (*Medical Times and Gazette*, January, 1876), and quoted by Dr. Clouston. Here there were apparently alternations of mental condition, the one melancholic or rational, and the other without warning, destructive, violent, homicidal and suicidal. Dr. McLaren described and analyzed this case with remarkable lucidity and skill, and his opinion was that it was closely suggestive of epilepsy, and that the impulsive state was one of a new or altered consciousness. It frequently happens that the act, and the idea or hallucination, if any, which prompted it, leave no impression on memory, so that there is a disposition to believe in a pure, blind impulse. The more the subject is penetrated, the more we have revealed the fact that the impulse is a psycho-motor act, though the psychic equivalent may often be forgotten or unrevealed.

The second matter of inquiry is the individual's usual amount of self-control. There is, perhaps, no perfect self-control, though some men are so gifted in a pre-eminent degree, even if their impulses to speech and action are at all active. Self-control is largely, though not entirely, a matter of training and habit, and much depends on 'sowing an act and reaping a habit, sowing a habit and reaping a character.' Idiots and imbeciles and spoiled children, the former mostly from congenital or infantile mental defect and superadded inefficient training, the latter from indulgent upbringing,

manifest early an absence of self-control. In addition there are many so-called degenerates whose mental equipoise is most unstable, and who break out in fits of temper or excesses of various kinds on the very slightest provocation. To prick the skin may excite a blow from one man, and only a faint facial contortion from another. You must here take into account excitability of nerve, as well as degree of self-control.

Third, the immediately exciting cause may be external or internal. It may be due to a thoughtless word, a word misconstrued, a push, or the summation of irritating stimuli such as the sound of many voices or of noisy clatter. It may be due to visual sensations of an alarming character, to fright, or to acute sensory disturbances, such as neuralgia, congestive headache, etc. Mentally, suspicion, delusions of persecution and the like, intense depression on the one hand, or angry irritability on the other, or finally hallucinations, may be the spark which excites explosion.

Clinical Illustrations.

Anergic Stupor.

J. W. This young man has been in a state of stupor for some time, following an attack of acute mania. He broke a window when excited, and a piece of flesh was cut clean away at the wrist. It was a long time in healing, and during the stupor the dressing of the wound was not attended with pain, though when he recovered mentally he was quite sensitive to pain. When asked, three months ago, if he remembered the accident, he said he did. It made an impression; but he remembered nothing else. He did not require to be fed, but was inclined to sleep over meals, and had to be jogged on; he was dirty in his habits. He had to be led or pushed forward; he suffered from constipation. He had a fair appetite; the pupils were dilated and sluggish. Asked if he remembered how long he was in the asylum, he answered, 'No.' 'Do you remember having a sore hand?' 'Yes.' 'What was the matter with it?' 'Influenza.' 'You hadn't influenza of the hand, had you?' 'I don't know.'

He is slouching in gait, not resistive to any movement, but rather passive. There is no impairment of circulation; his weight is increasing; time reaction very slow.

After-note.—When discharged recovered, he could not remember anything, except the accident to his hand.

Dementia. (*From a Clinical Demonstration.*)

John D., æt. 30. Tall, well built, placid expression.

Q. How are you?

A. Very unquietly.

Q. What is the matter?

A. Nothing at all.

Q. How old are you?

A. Seventeen.

Q. How long have you been here?

A. Six months. (He is here a year.)

Q. Where did you come from?

A. Away down the coal gum. (He is a collier, but has been in asylums for thirteen years.)

It may be noticed that the time reaction is scarcely retarded; but he can only answer simple questions, and they involve very little thinking capacity. His memory retains something of life's impressions up to the time he became insane, but not since.

Masturbation.

A. B., æt. 32, came to the asylum inquiring after a situation, as he felt his mind strange.

Notes taken at the time.—He is an artisan, feels a mental confusion, and an inability now to work up to the standard of other workmen, which has depressed him. Confesses to indulging in the habit of masturbation, but, like many such, qualifies his statement by saying that he has given it up. Gave up a girl on account of his health; is tortured by the idea that he is not competent to marry. Pupils active, left larger than right. Tongue large and healthy in appearance. Complexion good. Physique fair. Father died of dropsy, æt. 64; mother of surgical ailment. He is slow of speech and thought, nods his head automatically when told anything, like a Chinese figure. Does not seem to

be acutely conscious of what is said to him, for his expression is rather dreamy and indifferent.

This is a case where much good might have been done if the man's will was sternly brought to bear upon his character and conduct. I never saw him again.

Case of Masturbation and Insanity during Adolescence.

J. B., æt. 20, admitted in 1887 after a year's development. His manner was very peculiar and morose. He owned that he was often nearly overpowered by mad impulses to do injury to himself and others, that his memory had become very bad, etc. His thoughts were much confused, and he couldn't settle to do anything. His father said he had threatened to put a knife in him, that he had not worked for a year, that fifteen months before admission he set fire to a church in B—— and some stacks at a farm close by, and that his conduct was quite furious. He could with difficulty be got to answer questions, and was very dull and apathetic. His father said that he had been out and in the house fifty times in one day; sometimes walked quickly up and down the house, apparently furious. Present state: He passes through three stages in his mental cycle—*first*, fairly well, a premonitory stage of a few days, when he answers questions, engages in some employment, and is more active in his movements. *Second*, the stage of active masturbation and excitement. In this stage he talks incoherently, works with energy so long as there is work to do, masturbates whenever he gets opportunity. Is restless and impulsive if compelled to sit down, jumps up on tables and chairs, takes his food better in the first days, but not after. *Third stage*, quiet and stupid; does not masturbate; lasts about three weeks.

These stages recur regularly in the above order, but there is increasing dementia and abolition of memory; even the older events that he used to recall promptly are blurred, and often quite impossible of recollection.

Moral Insanity.

J. M., hawker, æt. 32. This man was sent to the asylum by the police, having feigned epileptic insanity; he feigned

symptoms according to the rôle he wished to play—excitement, attracting attention in the streets, delusions, *e.g.*, 'that his fingers were mortified'; later, 'that he was a gentleman of great gifts,' and epileptic seizures, which he feigned with some adroitness. His conversation on admission was quite coherent, and after a day in the asylum the feigned symptoms disappeared; he was tested regarding his mental faculties, and found to have the power of attention, observation and reasoning equal to the average man of his class. He was cunning, however, obsequious, and his speech and conduct were marked by duplicity. Of moral sense or responsibility he was absolutely deficient, and not for wife or family did he evince the least concern. When it suited him he escaped, and the next I learned of him was from the newspapers, which related the case of a sham epileptic, who, being taken for the real Simon Pure, was removed to one of our hospitals, and speedily found out and discharged.

Impulsive Insanity. (*From a Clinical Demonstration.*)

Suicidal Impulse.—W. B., æt 21. This patient talks intelligently; he looks bright and mentally active, and you might pass him in the street without ever suspecting him of insanity. Since his admission he is rather quiet, and we have for a long time been at a loss to explain the sudden impulses which seize him. While holding him as I do now by the collar, he has sprung from his attendant without warning; the change from apparent mental composure to suicidal impulse is so sudden and unexpected as to suggest shamming; but there is no sham here. We have been able to trace his acts to hallucination of hearing. His case may be summed up thus: Overstudy and anxiety to get on; neglect of food and sleep. Subjective sounds in his ears; then groans like something human; later voices; the voices become terrifying, then commanding, until at last, being distracted, he was impelled to attempt suicide in order to escape from them.

Two cases of homicidal impulse may be described in a few words:

G. B., æt. 22, stupor, his head was blistered with slight effect; when roused to take food, he let fly the plate of soup at the doctor's face, seized a knife and was restrained just in time.

H. R., æt. 24, had delusions of persecution; he was irritated by the supposed sneers of those beside him, lifted a chair over his head and brought it down with a crash, fortunately on the table, not on the intended victim.

Other evidences of impulsive sanity are seen in epileptics, general paralytics, cases of insanity of masturbation, in puerperal and allied insanities, and in other forms. They will be referred to incidentally.

CHAPTER XI.

GENERAL PARALYSIS OF THE INSANE.

Is it a distinct clinical and pathological entity?—Conflicting views—Who are most liable to be affected?—Age, sex, condition as to marriage, heredity—Causation—Premonitory Signs—These must be taken *cum grano*—The typical three stages which were formerly described cannot now be insisted on—The old type not extinct, and it is here described in its several stages, mental and physical—Mickle's classification of mental groups—Physical Signs—Differential diagnosis from Chronic Alcoholic Insanity—Syphilitic Insanity—Insanity from Cerebral Softening, or with concomitant paralytic affections—Acute Mania—Congestive Epileptiform and Paralytic seizures intercurrent in this disease—Prognosis—Treatment—Clinical illustrations.

GENERAL paralysis of the insane until recently was regarded as a distinct clinical and pathological entity, running a well-defined course, a downward general paralytic course, and usually ending within a specified time in death. Dr. T. B. Hyslop, writing in the *Journal of Mental Science* (April, 1896), endeavours with considerable effect to show either that the term 'general' is inadmissible, or at least that its diagnostic use should be greatly restricted. In taking up this position, Dr. Hyslop is to a certain extent in agreement with the late Monsieur Ball and others, who have directed attention to the unsatisfactory basis of our present diagnosis of this disease. His argument is that many are cases of pseudo-general paralysis, *e.g.*, alcoholic, syphilitic, saturnine and other insanities. There is much force in his arguments, and only the conservative character of scientific opinion has prevented a fuller acceptance of Dr. Hyslop's views. The feeling still strongly obtains, that there is recognisable such a pathological and clinical *genus* as general paralysis of the

insane, and that, though its mental course is rarely so loud and grandiloquent as it used to be, it is essentially the same disease, pursuing a downward course, perhaps not so rapid, perhaps with longer pauses of apparent arrest, but none the less certain to end in death, as a rule within three or four years.

Dr. Savage, apropos of Dr. Hyslop's argument, speaks thus: 'Cases of pseudo-general paralysis are those where I had made a mistake in diagnosis—cases where I dogmatically said a patient would die in two or three years, and they are still living after many years.' He still regards general paralysis as a name that must be applied to a group of symptoms, but believes with Dr. Hyslop that many cases frequently regarded by this name should be relegated outside of it. Dr. Wiglesworth, whose careful pathological work entitles him to speak with authority, still upholds the term, and appears to differ from Dr. Savage in the inference to be drawn from the above quotation that general paralysis is necessarily incurable. The discussion of Dr. Hyslop's paper (*Journal of Mental Science*, July, 1896) gives a fair *précis* of the views at present held on the subject.

The term 'general' has different meanings in the minds of various asylum physicians. It must be clearly understood that it does not mean complete paralysis of the whole muscular system. That means death. The aggregate of cases may present what has been described as a hotch-potch of symptoms and pathology, but it is our duty to differentiate to the best of our ability in the light of present knowledge, and so long as we cannot resolve from chaos particular and definite groups of symptoms, and label them distinctively, we must make use of the old term, and restrict its application whenever possible. Just as we now differentiate forms of Bright's disease, phthisis, and morbus cordis, we may hope some day to distinguish more clearly several forms now grouped under the head of general paralysis of the insane. We make use of the full term 'general paralysis of the insane,' though the possibility that general paralysis such as we see it in asylums—in the early stage, at least—may exist without insanity must not be lost sight of.

General paralysis, whether due to a vascular or degenerative disease, or both, is not defined by impassable limits either in the cord or brain. There is this essentially in the pathology of the disease—active and progressive inroads on fresh territory of the nervous system. It may be so insidious as to be unnoticed till macroscopic results speak for themselves; but it is as surely progressive. We have monoplegias, hemiplegias, spinal paralyses, and cerebral palsies, which are dry mortifications, so to speak, mere dry rotten stumps, but the trunk and other branches are physiologically intact still. In general paralysis the disease is constitutional, not partial, selective, and circumscribed.

General paralysis of the insane is a disease of civilized life; it is the penalty which we pay for our civilization, the proof of our rapidly increasing brain evolution, with increase of mental excitants, such as social, sexual, and alcoholic stimulants. We do not find general paralysis affecting the negro or the Celt in his native state, but transplant him to a state of civilization and you change him from a negative to a positive state, susceptible to the disease. He may drink as much whisky as he likes in his native glens, but if it ever produces insanity it does not take the form of general paralysis.

The causation is still clouded, and has given rise to much speculation. It has been asserted that it is the result of excess, chiefly of sexual excess, but certainly of this and alcoholic excess combined. In the opinion of others, the magnitude of these causes has been overstated, and it is regarded as largely the result of severe mental strain, prolonged anxiety and worry, and a state of feverish mental excitement from day to day with few pauses for holiday, or recreation, or change of thought of any kind. It is asserted again that all these causes I have mentioned are, taken conjointly, the one and only cause of general paralysis. Spitzka puts it down to the three W's—wine, worry, and women.

According to Dr. Julius Mickle, the male sex is affected in a proportion of between four and five to one female, and some of the earlier observers attributed this to a prophylactic influence of the menstrual discharge in women, but

this, as Mickle has pointed out, is fallacious. Those predisposed are usually of a sanguine temperament, according to some authorities, but this is certainly putting the case too strongly. My own experience is that the bilious or biliosanguine temperament is quite as liable to be affected in this way. No certain information can be given as to the character and disposition of those predisposed to general paralysis, because they are so various. Hereditary predisposition is not so prominent a factor as in other forms of insanity, but it is found to vary in the statistics of different countries, and may be stated as from 15 to 30 per cent. The proportion of married general paralytics is much greater than unmarried. The occupations stated by Mickle as most liable are the military and naval services; occupations exposing to great heat and sweating, or to alternate draughts of heat and cold, prostitution, occupations which entail emotional strain, constant worry and irritation or intellectual overwork, as the occupations of professional and literary men. Of predisposing conditions there is the ambitious life, with its prolonged strain, its fluctuation of feeling, prolonged or violent feelings or passions, whether of worry, indignation, or lust. A previous attack of insanity or cranial injuries may predispose to this disease. It sometimes, though rarely, breaks out in women during pregnancy, or in the puerperal state, these conditions being exciting causes.

It is difficult to distinguish predisposing from exciting causes, for you will find that the predisposing often operates all along the line, and that what are known as exciting causes, sexual excess, alcoholic excess, sunstroke, cranial injuries, etc., are also often predisposing as well. You may find that too much has been attributed to sexual excess or alcoholic excess. In Germany it is even asserted that syphilis is the chief cause of general paralysis. The sexual excess and the alcoholic excess may be preliminary symptoms rather than causes, and syphilis produces many forms of insanity, and is by no means so frequently a cause of general paralysis as has been asserted. My experience lately has been that general paralysis in the female is often the result of syphilis.

Premonitory Symptoms.

Much has been written about the premonitory symptoms, and there is a natural temptation to lay stress on these. It is very gratifying to forecast early the diagnosis and course of such a disease, but attempts at early diagnosis are often attended with most unfortunate results. The following statement of premonitory symptoms must be taken *cum grano*, for their significance is not always the same, and if too much reliance is placed on them, a hasty prognosis and a wrong one may be the result. Such symptoms should be taken as indications for more exhaustive investigation, but a 'non-committal' attitude of mind is necessary till time reveals their true significance. There is not one of the following symptoms that may not be purely functional, and unrelated to general paralysis in the remotest degree.

There is therefore a degree of uncertainty in the general premonitory forecast of general paralysis. We have to regard it as a nervous and a mental disease, the nervous symptoms perhaps progressing in advance of the mental, or the mental in advance of the nervous. If you ask the friends of a patient how long he has been affected with this disease, they will tell you a few weeks, and that is so from their point of view; but they cannot nicely discriminate changes of character, and they are ready to make excuses—'to his faults a little blind, to his virtues very kind.' The extra dissipation is excused on the score of overwork, or justified by the fond wife or sister in some other way. The greater restlessness, the larger ambition, the bolder schemes, the wilder imaginations, are but signs of increasing maturity and masculine genius. Nevertheless, a trained observer will notice fine departures from health, for general paralysis will show itself in its early stages to an acute physician long before it is noticed by the friends—mental defects of a kind not easily noticed, because they are only apparent to intelligent observers. There is a steady and more or less regularly progressive degeneration of mind and body, so that the highest faculties show the first signs of change, and the special attainments fail before the more general. The pace of degeneration may be rapid or slow,

and it is often insidious. The mental and nervous downfall usually goes on by almost imperceptible gradations, the finer adaptations failing first. That is one form of onset. In other cases, however, we may have a sudden apoplectiform attack followed by stupor or a sudden attack of acute mania without any appreciable mental or neurotic warning. You may notice also slight motor defects coming and going for years, showing a degree of motor instability. You may find an increasing muscular fatigue on exertion, or temporary and recurrent affections of speech; but you must be careful to differentiate between what is rheumatic or gouty (weakness in legs), and what is paresis, and you must inquire into the speech history of the individual, who perhaps was affected in childhood or youth with a stutter or some other defect. Other prodromata are seizures of cerebral congestion, flushing and heat of the face and head, 'stunnings,' or 'absences'—especially after excitement or overwork—headache, somnolence, ptosis, diplopia, facial palsy, affections of hearing and sight coming and going. Intellectually there may be manifested mistakes in writing and speaking, missing out a word, using the wrong word, misspelling, forgetfulness, fitfulness and irregularity in business or expensiveness, a speculative change of character, and insomnia. On the other hand there may be depression and worry and a gloomy forecast. Sometimes we notice excess in eating and drinking, and perversion of the moral sense is a common symptom. Temporary loss of sight and optic neuritis are also among the most important of the premonitory symptoms.

The typical three stages of the disease which were formerly described must no longer be insisted on. General paralysis is less typical than it used to be. Just as the types of fever have changed, in like manner the classic description of general paralysis is admissible for only a few of the cases which we meet with in practice to-day. The analogy goes further. It used to be the general opinion that fevers and inflammations were sthenic, and therefore bleeding was indicated. The reason given by some of the older physicians for the change from bleeding to feeding was that the type of disease had changed. The type of general paralysis fifteen or twenty years ago was noisier, more self-assertive, abound-

ing in excitement and active extravagance of speech and conduct, and exhibited physically a full-blooded sthenic appearance more rarely seen now. Congestive attacks, the so-called apoplectiform attacks, epileptiform attacks, were much more common, and sudden extensive muscular paralysis as a result of them. Now it does seem as if degenerative changes and negative symptoms were more frequent, and the manifestation of the disease in its first appearance less robust, the general paralytic being often a puerile weakling from the beginning of his malady. It must not be supposed that the old type is entirely extinct, and as its description gives more graphically the conception of what is possible, but is not always in evidence, I propose to still repeat this description. There are recognisable in such cases three fairly well-marked stages: (1) The stage of excitement, (2) the stage of quiescence or transition, (3) the stage of dementia and advanced paralysis; but, as already indicated, there are exceptions, and as there are different types of general paralysis, these stages are modified according to the type.

In the stage of excitement the mental side of the disease is the predominant one; the motor advances more slowly, and is usually not recognisable at first without a little experience and education. The excitement is usually of the maniacal type, and you will most likely at first diagnose such a case as one of acute mania. There is exaltation of feeling, evidenced by a gay, boisterous, happy expression. The sense of well-being is exaggerated, everything is *couleur de rose;* the patient is absurdly happy and contented with himself and his surroundings; there is no sign of depression, no anxiety, no care and no thought for the future. The moral sense is decidedly blunted, and you will find that often one of the first signs of the onset of this disease is that the patient has been taken up for theft, and he may be committed to prison without the authorities detecting anything wrong. This thieving, or kleptomania, is a notable symptom, for the patient takes away things openly; has been known to remove articles from a shop door and ask a policeman to help him. Another was found removing flowers from a town mansion and when arrested

coolly remarked that they had been presented to him. A third—a poor man—kept a cabman driving about with him all day, and at last, when the latter's suspicions were aroused, he found his fare had nothing to pay. Such a man is perfectly cool and unconcerned when caught red-handed, always ready with some excuse, and he will appropriate without discrimination things useful or worthless, and give them to the first man he meets. He steals freely, but bestows generously. Sometimes it is not theft, but some petty assault, that first brings him under the notice of the authorities, and then perhaps he is found to be insane. He has no sense of moral responsibility, and is blind to the starvation of his wife and family, while he revels in delusions of his wealth, grandeur, and omnipotence. His moral depravity shows itself in sexual talk and impulses. One man disowns his wife; says the children may be his, but that he only lived with the woman, and that he is going to marry the beauty of the season to-morrow. He has no sense of propriety, and in the presence of the female sex his erotic passion is apt to show itself. There is no doubt that in such cases there is an insane exaltation of the sexual instinct. Even when erection is impossible, the excitement of this passion is sometimes remarkably strong, and still it is a curious fact in the history of such cases that their sexual insanity, of which they seem so unconscious, does not prevent the vilest accusations being made by them against others. They frequently have the delusion that their wives are unfaithful, but they see not the mote in their own eye, see no harm in proposing marriage to a dozen women in one day.

In the sphere of the intellect we find considerable and disorderly excitement; the attention is wayward, all the more so because of the intense egotism of the man. He is too much occupied with himself, his great ideas and schemes and his extravagant conceptions to listen quietly to what is said to him. His delusions vary every hour. You cannot suggest anything to him that he does not possess or that he cannot accomplish. With him, to wish a thing is to have it, and all things are possible to him. At one and the same time he is the crucified Saviour, the Holy Ghost, and the Heavenly

Lord; all that he wants is merely to sign his name and earth and heaven will pass away. If you should mildly suggest that you can overpower him, he will lie to you and unblushingly swear that he killed ten men last night. His wealth is unbounded. One poor carter entertained the delusion that he had leased a large farm, and was going to America to buy horses for it. Another declared that the asylum is heaven, and after two days' residence told us that he had been round the world since he came. If we could imagine all the extravagant day-dreams of the people of this world garnered together, we might form some conception of the endless variety of grandiose delusions which possess the mind of the general paralytic.

The excitement may show itself in the form of maniacal violence. One large, powerful fellow, for example, was in a state of intense religious exaltation when admitted. He was in a perfect fury of excitement, talked very loud, and kept up this mental pace with such a torrent of language that to get a word in edgeways was simply impossible. He was quite absorbed with his own religious egotism, very masterful, irritable, and difficult to regulate. He was secluded because of his violence, and his sudden impulsive attacks, for several days. Violence may take the form of destructiveness, often because of delusions. A man who believes himself a millionaire regards with disgust his homely furniture and effects, once his household gods, and may proceed far in his work of destruction before he is interfered with. But although we have this violence and excitement, the difficulty of control is more apparent than real, because there is usually a facile disposition that can be played with if only you humour your patient, a childishness, a superficial nature that makes the general paralytic usually very manageable even in the midst of his passion, if taken the right way. You can lead him as a little child, but you cannot drive him. Though facile as children, they are, like children, irritable, impulsive, impetuous, and self-willed. A study of the mental character of these patients gives you a replica of childhood which no other form of insanity can compare with. The memory for recent events, and gradually for

older, is impaired. Because of his now treacherous memory, the patient fails in keeping promises, and fails also even if he should remember them, because his moral sense is gone. His ideas are mere childish aspirations. Like the child, he has large ideas; but with the child they are to be realized *in future*, with him they are realized now. I have often puzzled over the question, Does the general paralytic really believe all he says, or is he consciously boastful and untruthful from lack of moral sense? The evidence of mental dissolution is seen in the inability to perform any task properly—no matter how simple. This is due to want of memory and want of attention, to mental unrest, and a state of mental confusion.

The moral defects have been partially dwelt upon, but the whole moral character becomes gradually effaced, and the condition of early childhood is apparent in utter selfishness, indifference to the wants of others, and inability to recognise any moral significance in anything. One of our patients, a man of sixty, was admitted as a criminal case. He passed a profligate woman in a public park, and with a weapon in his hand killed her on a sudden impulse. When questioned about it, some weeks after, he replied with a smile of self-complacency, 'Yes; I killed three hundred of them.' The manners and habits are altered; untidiness in personal appearance indoors, outdoors, at table, everywhere; but to this there are exceptions; indeed, a few retain for a long time their sense of cleanliness and order.

Rather too much has been made of the affections of the special senses in this disease. It is alleged that loss of the sense of smell is not uncommon, that, as already mentioned, sight affection is frequent, that colour-blindness is often observed, and that deafness has been noticed as an early symptom in some cases. It is important to give a caution here, and to remember always that symptoms or physical signs observed in the history of the disease may be no more an integral part of it than housemaid's knee is of pneumonia, though they may appear synchronously in the same patient. Remember also that the fact that a man has little or no sense of smell is no proof that he could ever smell well, and a man may be colour-blind for want of education. I have

tested many patients with the colour test, and found them—excepting the really demented cases, of course—as capable as the average sane individual.

But you will find hallucinations of the senses prevalent. Thus, one patient declared that he had seen in the night his house filled with black dogs, and the noise of their howling kept him awake all night. He had the hallucination also that a drowned man was touching him, said that his saliva tasted very bitter and that it was poisoned, that laudanum had been given him, and the doctor had opened him in his sleep, and that he had been blistered with two fly-blisters. He was subject also to various other sense perversions and hallucinations. It must, however, be observed, by way of correction, that many so-called hallucinations of the general paralytic are lies or fanciful delusions, and though I have given the above long catalogue all from the mouth of one man, a second revision of his case might take some of his statements out of the category of hallucinations or delusions.

Eight Mental Varieties of General Paralysis (Mickle).

Mickle recognises eight mental varieties in the first stage. These are: (1) *Symptoms of dementia predominant*, in which are found all grades of mental failure and deficiency. (2) *Expansive delirium predominant.* Here grandiose ideas and a feeling of elation or quiet self-satisfaction are manifested. (3) *Mental excitement predominant*, with probably, though not necessarily, exaltation and grandiose ideas. There may be excitement, mental and motor, or merely silent resistiveness and destructiveness, or what is described as the galloping form of general paralysis—raving, violent, sleepless, with typhoid-like symptoms (*vide* 'Acute Delirious Mania'). (4) *Hypochondriac symptoms prominent.* In such cases the essential mental state may be hypochondria, with delusions as to the viscera, and especially regarding the liver and bowels. According to Mickle, this form is next in frequence to the expansive; but in my experience the first class, *the early demented*, are more prevalent than the hypochondriacal. (5) *Melancholic symptoms prominent.* (6) *Persecutory delusions prominent.* (7) *Stuporose form.* (8) *Circular form.*

Physical Signs of General Paralysis.

What really constitute the chief grounds of our diagnosis have yet to be determined with a fuller consensus of agreement than at present obtains. Much that is illogical has been written on the subject, and many signs have been adduced as evidence without due weight being given to the personal equation or a recognition of the truth that the ideal man is not the normal man. General paralysis in one instance on record—and, of course, there may be many more—was strongly suspected in the case of a man whose speech was affected, whose tongue was tremulous, but who recovered, and was able to assure his physician that the speech affection and the tremulous tongue had lasted him all his life. In the same way much is made of the state of the pupil; but careful observers of their patients in general practice will frequently notice inequalities of the pupils, which come and go, or which may continue for long periods, if not permanently, and yet have no connection with general paralysis at all. This is particularly seen in cases of nervous exhaustion, where there is no question of insanity at all. While not neglecting to observe all the nervous phenomena present in our patients when they first come under notice, and while they are under treatment, we must be careful to remember that there is a past history, good or bad, and in the light of that our diagnosis must be made.

Attention may first be directed to the state of the pupils, the appearance and reactions of which are regarded as of great importance. Recent researches, together with the observations of Bevan Lewis (*British Medical Journal*, 1896), have enlarged our conception of the multiform connections of the pupillary reflex mechanism, so that at present the clinical value of the pupillary reactions must be carefully reconsidered. It is impossible here to discuss anatomical relations and purely physiological questions; but the following observations require to be made regarding the pupil: *first*, the size; *second*, inequalities; *third*, alterations in form; *fourth*, reactions.

The size of the pupil is alone of no importance, but very

small pupils may suggest organic disease when they fail to react to light and other stimuli. Inequality is regarded as of more significance, but it must be remembered that inequalities may be temporary and indicative really of functional irregularity. This is seen in nervous people, in cases of nervous exhaustion often in the morning, and indicates defective co-ordination of temporary character. The form of the pupil is more important, but here also careful inquiry should be made into the history of the case, for alteration in form may be due to iritis or degenerative changes in the iris. The form may be oval, square, or irregular, and it is usually found that one pupil is more affected than the other.

The reactions give very important information. Let us first consider reflex dilatation (Erb's). The pupils dilate normally in response to various sensory stimuli, cutaneous, muscular, auditory, electrical; but according to Bevan Lewis, this reaction fails in general paralytics to the extent of nearly 45 per cent. in the male. In a series of examinations made in my clinique and in the wards afterwards the percentage was not found to be so large, and the value of this symptom is rather discounted by the fact that it is not peculiar to general paralysis, and that Lewis has found it in 24 per cent. of epileptics. This defect of reflex dilatation is not the same in both eyes as a rule. It may even be unilateral. Contraction in response to light is often impaired, and this may be associated with loss of reflex dilatation. The Argyll-Robertson pupil (loss of light reflex with contraction on accommodation persisting) is especially seen in spinal forms of general paralysis. Consensual convergence of the eyes for accommodation is sometimes defective, the one eye converging steadily, the other not, or coming to a stand-still half way, and then diverging.

The facial features have for a long time attracted considerable attention. Tremors may be observed affecting any or all of the muscles. These tremors may be of the very finest character, becoming coarser and more generally distributed with excitement, or when a strain is put on the muscles, as when opening the mouth wide, or putting out the tongue. These tremors are not peculiar to this disease; they are

often seen during emotional outbursts or when the nervous state of the individual is below par. If the tremors persist, affecting the muscles more deeply, and inducing more or less facial distortion, without any other explainable cause, and if the lip-muscles, the buccal and zygomatic, are more or less involved, together with those surrounding the mouth, this symptom acquires grave importance. It will probably be observed that the patient has lost co-ordinating power, as when he attempts to whistle, to smile or speak, and in more advanced cases there may frequently be convulsive movements when a voluntary effort to speak, smile, or whistle is made.

The tongue is usually tremulous, often jerky or convulsive, and protrusion may be difficult and in advanced cases impossible. The speech is regarded as a very distinctive feature. At first there is often difficulty with long words, especially where there is redundancy of consonants, notably L and R. At first the mental faculty of speech may be apparently normal, the difficulty being one merely of articulation; but as mental weakness proceeds the defect of speech is one of retardation with stops and hesitation, as well as impaired articulation. Such combinations as 'Parliamentary Road,' 'Royal Infirmary,' may be employed to test the speech where there is a suspicion of general paralysis; but inquiry should always be made regarding the speech function in health, for not everyone can rattle off a patter-song or speak quickly without tripping.

The finer muscular movements and combinations are the first to suffer, and this is well seen, not only in the face, but in a change of handwriting. It becomes tremulous, jerky, irregular, and blotted; but by this time the diagnosis of the disease may already have been safely made. The mental dissolution is evident in the missing of letters or syllables, in repetitions and confusion of ideas.

The larger muscular movements are evidently intact for some time during the progress of the disease. Locomotion may be unimpaired, the gait and stride being free and swinging as of old; but the dynamometer soon reveals a weakness of grip, and in turning sharply there may be seen

a slight swaying or staggering movement. If the spinal form is manifested the paralytic gait is an early symptom, and may be spastic or tabic. As the disease proceeds, no matter what form it takes, progressive paralysis in one direction or other becomes more and more evident.

The reflexes may be altered or wanting. The feet show loss or diminution of reflex action, and finally it is limited to the toes. The knee reflex may be lost or exaggerated. Ankle clonus is rarely manifested. Of the cremasteric and abdominal reflexes nothing definite can be said. The knee and ankle reflexes differ in spastic and tabic cases as might be expected, for they correspond negatively or positively with the description given in text-books for these two varieties of spinal disease.

It is difficult to test sensation in some cases, and the sense of touch can only be measured approximately. Cutaneous sensation is not impaired at first, though certainly it is as the disease proceeds; the muscular and temperature senses are not impaired till the latest stages of the disease. Of course, the advancing dementia must give negative results eventually.

These alterations and diminutions of nervous function indicate how widely the disease spreads when once its onset is fully manifest; but there is no similarity in the manner of onset, in the selection of a particular nervous plexus for first attack, or in the order of progression of the disease.

The Second Stage.—The duration of the first stage is variable; it may last for a year or more; it may be rapidly expended, and the patient pass into the second stage in three months. Nor is there any sharp dividing line between the two. The excitement becomes less acute; the patient sleeps more, puts on fat, becomes heavy and flabby, and in some cases may appear to be actually recovering, for he settles down to occupation, makes himself useful in the ward, exercises a supervision over other patients which would appear to indicate a restoration to his former health and usefulness, but for the fact that this activity and supervision and helpfulness is rather fussy and officious. There may be spurts of excitement, but they are not sustained.

Often we observe long spells of stupor, or at least of mental dulness and physical inertia, with occasional interludes of excitement and exaltation which by-and-by diminish to vanishing point. A careful examination of the patient's mental condition will reveal the havoc that has been made in the sphere of the whole mental constitution. The memory is more and more impaired; if the patient sees a friend, perhaps walks with him for half an hour, he forgets all about it, or at least much that has occurred two hours after. His faculty of observation is diminished; the moral nature is more and more affected. He loses all sense of moral relations, and he becomes emotional like a child.

The changes in the nervous system are now very evident; the motor system is being undermined; locomotion is more difficult; the arms and hands are feebler, and the finer movements show marked inco-ordination. The advancing paralysis may be rapid, or it may be slow; it may appear to be partial, or it may be general; but the result is in all cases a progressive diminution of function, an advancing paralysis. The eye symptoms are now unmistakable, and sight may be affected by retinal changes or atrophy of the optic nerve. The facial expression changes to one of fatuity; the lines of feature are more and more brushed out, and often a fat, puffy, greasy, expressionless character is acquired. The play of feature, the rippling smile, the prompt responsiveness, the bright and animated expression have disappeared; the appetite is voracious still, but the sexual appetite, often exalted in the first stage, is now usually lost.

The Third Stage.—There is here little mind left, the patient is very emotional, is easily made to laugh and cry, his memory is quite gone, and though the shadow of his former happy self is sometimes manifest, there is little or no excitement, and when it does exist it is of an indefinite, purposeless character. The third stage is the bed-ridden stage, for the patient has difficulty in walking, he may be entirely paraplegic, he needs much care and nursing, and requires to be fed because of glosso-labio-pharyngeal paralysis. The sphincters are no longer controlled, paralysis has advanced here also, and the draw-sheet is continually required

because of his wet and dirty habits. The superfluous fat is disappearing, and bed-sores from trophic paralysis, though preventable at first, are certain to appear within a few weeks of death.

Differential Diagnosis.

It should not be difficult when once the disease fully shows itself to make out a case of general paralysis, but there are within its own borders varieties diverging from the general type, melancholic, hypochondriacal, demented, spastic and ataxic cases, and there are beyond its own borders, but closely merging with them, groups that in some respects resemble general paralysis, and may confuse the diagnosis. What has been said in the introduction to this chapter on *pseudo* forms of general paralysis should be remembered here. The types that may raise doubts are cases of chronic alcoholism, insanity from sunstroke and lead poisoning, syphilitic insanity, acute mania, insanity with cerebral softening, or associated with limited paralysis, locomotor ataxia, paralysis agitans, epilepsy, and apoplexy. There is no occasion to go into the differential diagnosis of all these types. It is only rarely that the question will be raised with reference to some of them, such as epilepsy and apoplexy, but of some of the others it is necessary to give distinguishing features.

Chronic Alcoholic Insanity.

The tremor is here more general; there is less ataxia, the delusions are seldom of the exalted type, and there is usually an absence of the facile disposition and self-satisfaction which are so characteristic of general paralysis. There is an absence of the expansiveness even in its mildest form, and of the wayward and erratic character of the general paralytic. A careful consideration of the motor symptoms will reveal a more progressive character and a more extensive and intense implication as a rule in the general paralytic. Further, the age of the patient, his history, and the mode of onset of the attack, will help to distinguish the one from the other as a rule without much difficulty. Recognising,

however, that alcoholic excess is itself a potent cause of general paralysis, you may find in the latter, especially where alcohol is the chief cause of the disease, a nearer approach to the symptoms of true alcoholic insanity.

Syphilitic Insanity.

In syphilitic cases the nervous symptoms are usually earlier in their appearance than the mental, and are not so progressive. There are noticeable affections of the cranial nerves, ocular troubles, nocturnal headache, and early appearance of convulsions. The symptoms are also frequently unilateral. Ataxia is less noticeable, the symptoms being more distinctly paralytic at the outset, and localized more definitely than in general paralysis. The treatment of a suspected syphilitic case with anti-syphilitic remedies will in some cases determine the diagnosis, but not always. There are cases which in spite of the rules here laid down will give great trouble in diagnosis.

Insanity with Cerebral Softening or Paralytic Affections.

There are cases of brain softening and brain atrophy which I have noticed more particularly in women, with delirium, often melancholic, and various forms of paralysis, *e.g.*, of sight, a delirium really of progressive softening and atrophy of the brain running a short and fatal course, and to be distinguished from general paralysis by a more sudden onset and by the absence of mental symptoms that could possibly correspond with the disease. The term ' paralytic dementia ' is one frequently applied to general paralysis in its final stages, but, properly speaking, it should be reserved for those cases associated with hemiplegia, monoplegia, and other defined and limited paralyses. The mental symptoms are usually those of mild dementia with occasional attacks of excitement and sometimes exaltation ; the paralysis remains the same without extension, often for years.

Acute Mania.

From what has already been said, it will be evident that we must frequently be called upon to differentiate between

acute mania and general paralysis. When the motor symptoms are slow in making their appearance, it is often difficult to distinguish between the two. General paralysis has by no means a monopoly of exaltation and grandiose delusions, for they often occur in acute mania as well as in other forms of insanity. The diagnosis should be delayed if the temperature is much above normal with no bodily condition to account for it, if the excitement persists for a long time, and if there is even the faintest suspicion of tremor, disordered articulation, or pupillary defect.

Congestive, Epileptiform and Paralytic Seizures.

Congestive or apoplectiform attacks, as they are called by some, are peculiarly characteristic of general paralysis in its second and third stages; but they may even appear to usher in the disease, and I have known such a case received into one asylum apparently in the first stage after having been discharged from another asylum on recovery from a condition of stupor the sequel to a congestive attack. These attacks come on suddenly, and are of the nature of apoplectic attacks so far as clinical features show; but the pathological condition is not a hæmorrhagic apoplexy, but an intense cerebral congestion, with perhaps resultant hæmorrhages of lesser gravity. In the congestive attack you have the symptoms of apoplexy, with or without paralysis. They may occur several times in the course of the disease, and not infrequently carry the patient off at last. The epileptiform is of the nature of a congestive attack, with convulsions superadded. Hemiplegic seizures, usually of very slight and transient character, often appear in the course of the disease, but they become more serious in its later stages.

Prognosis.

The prognosis is bad. It is bad as regards the question of recovery, the question of life, and the duration of life. It may be that, as alleged, some cases do recover, but as a rule appearances are deceptive and only remissions occur. The best encouragement we have at present is in the fact that the galloping form is becoming rarer, and that the course of the

disease is not so rapid. Not so long ago we reckoned the average duration at eighteen months to two years, and where exceptional cases lived on for four or five years, we began to doubt whether they were cases of general paralysis or not. At present under treatment we have patients whose average duration is two years and ten months, and only a third of these are in the final stage. The second stage appears to be prolonged.

Treatment.

It is not often that we have opportunities of treating patients before the disease becomes confirmed, but in general practice the attack may be averted or considerably delayed. It is well therefore to remember what are the causes of general paralysis, so that they may be removed if possible, and what are the early symptoms, so that they may be taken as a warning in time. The avoidance of excitement, of alcoholic and sexual stimulation, of undue anxiety and emotional disturbance, and of mental overwork, should be insisted on. Change of scene, active physical recreation, a regular mode of life, a suitable dietary, and attention to the bowels, should be enjoined.

In the treatment of general paralysis, when once the onset is confirmed, all that can be done is merely palliative. If the attack assumes the acute maniacal form, and there is risk of injury to the patient, seclusion may have to be resorted to. Dr. Clouston has tried continuous doses of sulphonal in hot milk, and says that he has thus been able to carry the patient safely through the first stage without injury to himself or others. The best treatment in the acute stage is outdoor labour, and the safest and simplest kind of work is a wheelbarrow. In any case let him be out in the open air as much as possible every day. Give the motor excitement the freest play possible; tire him out if you possibly can. In some cases bleeding may be indicated. In all cases attend particularly to the bowels, and let the diet be simple and digestible. Sedative drugs are of very little use in general paralysis; a hypodermic injection of hyoscine in emergencies is sometimes useful. In the later stages great care should

be exercised in feeding these patients so that choking may be prevented, and minced or chopped food, liquefied as much as possible, should alone be given. The patient requires a great deal of nursing and care when once he becomes bed-ridden, and he should be moved about in bed, and out of bed, for a few hours daily, if possible, and kept perfectly clean and comfortable in order to prevent bed-sores. A very good plan is to harden the skin with white of egg and spirit, or with a strong tannin solution such as may be obtained from tanners; but in the end bed-sores are sure to appear, and they are then best treated with carbolic oil or some other antiseptic.

Clinical Illustrations.

The various manifestations of general paralysis, though not necessarily in the order here given, have many points of illustration in the two immediately following cases, the first showing two forms, melancholia and mania, the second the tabic form of general paralysis.

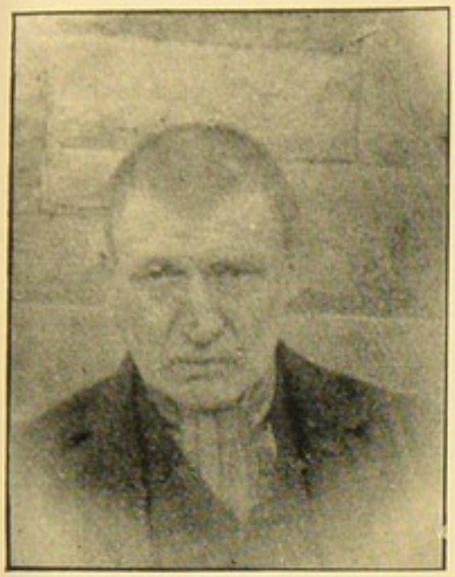
Alternating Form of General Paralysis.

J. B., a country labourer, with a history of alcoholic excess and heredity. On admission he was melancholy, not inclined to conversation, and slow to answer questions. He was under the delusion that no one would employ him, and he was so utterly miserable that he secluded himself from the sight of everyone, and would not go out of doors. He had an unspeakable dread that something was going to happen to himself and family, and he refused food. One significant symptom attracted attention; his pulse was 120, and there were no physical complications to account for it. There were no nervous phenomena of any account; the pupils were natural in size and outline, but sluggish; the tongue was protruded a little to the right side, and his general condition was that of pallor, want of muscular tone, and anæmia. A fact which struck us as very curious, however, was that his despondency, contrary to the usual rule in melancholics, came on towards evening and had disappeared by morning. He did not sleep well, was wakeful, fidgety, restless, and would not keep in bed.

He was sent to work in the garden, became more cheerful, less restless, and appeared convalescent; but a fortnight later he was reported as nervous and frightened and attempting to get out of one of the dormitory windows at night. Nervous twitchings were now observed round the eyelids and mouth; the voice, at first regarded as of melancholic tone, was now distinctly emotional and tremulous; he was facile, easily diverted from one subject to another, but peculiarly sensitive in his feelings. Later on the depression had disappeared; he showed temper and impatience when his wife did not visit him as expected. He was next reported as gaining strength and steadily improving in his mental condition, but the twitchings about the eyes and mouth were still present; he was discharged much improved, and was again admitted in three months.

Report on Second Attack.—He is now decidedly paretic; he soon gets tired walking, and staggers and reels like a drunken man; his words are interrupted, a peculiar quivering movement is visible in the under-lip, even when the mouth is closed. There is still nothing noteworthy in the pupils, except that they are dilated, and remained so for two or three months with no inequality or irregularity. He now proves a most troublesome case, violent, abusive, requiring restraint, masturbating without shame, making himself very officious in the wards, choking up the water-closets with coals under the idea that he is carrying out some benevolent scheme. He has delusions of exalted character: that he is to inherit great wealth, that a legacy has been left him. Under the influence of these grandiose delusions he was found destroying his furniture or proposing to give it away so as to make room for the magnificent furniture which his new wealth would buy. The sexual element at this stage was a very strong feature of his case. He became most violent and dangerous, making vindictive attacks on the attendants with any weapons he could lay hands on, smashing doors and windows in order to get to his wife, whom he believed to be just outside.

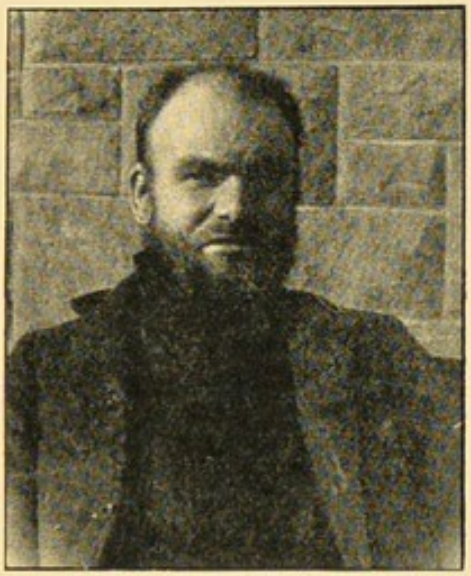
Plate IV.—GENERAL PARALYSIS. PARALYTIC INSANITY.



GENERAL PARALYSIS (HOMICIDAL).



PARALYTIC INSANITY.



GENERAL PARALYSIS (SURGICAL SHOCK).



GENERAL PARALYSIS.



GENERAL PARALYSIS.

face p. 218.

Case of Tabes Dorsalis with General Paralysis.

C. B., æt. 39, married, soldier; father was insane for three months. *History of present attack:* Unsettled, and could not fix attention on his work; did stupid things in the house; although his wife and children were starving, he spent what money he had in useless articles, and gave large orders for things for which he could not pay. On admission he imagined he was possessed of great wealth, was restless, talkative, and excited; could not sleep at nights owing to imaginary insects annoying him (hallucination of touch); the left pupil was considerably larger than the right, both reacting to light; the tongue was tremulous, sensation appeared normal, the reflexes were not impaired, and the special senses were apparently healthy.

Progress of Case.—'The exaltation is well marked; patient thinks he is a very fine fellow; says he is a magnificent writer, while in reality it is all he can do to write his name legibly; there is considerable mental enfeeblement. The articulation is correct, the tongue tremulous; the left pupil varies in size, being sometimes larger and sometimes smaller than the right; the outline is sometimes irregular, but not always. There are also tabic symptoms. When made to stand with his feet together and his eyes shut, he sways about and tends to fall.' At a later stage, a year after admission, he is described as follows: 'A mild exaltation which shows itself more in a self-satisfied, contented expression than in any well-marked delusion. He states that he has £4,000, but more mechanically than otherwise; and in the same breath he talks of his being a corporal in the army with a pension of thirteen pence a day. There is neither excitement nor depression. Enfeeblement is well marked; it is seen in the facile disposition, in his being too easily controlled, in the want of self-assertion, and the absence of mental vigour. The memory is impaired, he does not recollect names of places well; he can answer questions, is quite coherent, and his attention does not waver much in simple conversation.

'The symptoms of locomotor ataxia are well marked. Even with his eyes open he has great difficulty in walking, and

cannot stand unsupported; his lower limbs are little better than artificial limbs; co-ordination of arms and hands is not impaired. In the train one day, when at a speed of thirty miles an hour, he threaded a needle and stitched a small button on his trousers. This speaks well also for his eye-sight, co-ordination and nerve. Sensation to pain and touch much impaired in lower extremities, much less so in upper. Plantar reflex impaired, tendon reflex abolished. Right pupil larger than left, but both of medium size; they contract to accommodation, but not to light.'

General Paralysis with Early Dementia.

The following case illustrates the type of general paralysis characterized by mental enfeeblement and the absence of marked exaltation even at the beginning of the disease.

W. B., æt. 32; father has had apoplexy; the patient was seized with left hemiplegia, of which a faint trace still remains, especially in the left leg. His personal history is fairly good; the attack of hemiplegia came on when he was at work in a coal-pit, but he was able to walk home, though his leg was somewhat stiff. His speech became affected, being slow and thick. He became weak and childish, but a mental change in this direction was noticed before the onset of the hemiplegia; the pupils at an early stage were unequal and the reactions impaired; there is slight facial deficiency, considerable tremor of the tongue, and slight tremor of the lips; he also exhibits other nervous symptoms of general paralysis. This is a very slow case, and while there is a childish contentment, there is no real exaltation.

Female Case of General Paralysis with Syphilitic History.

The report of the following female case of general paralysis has several points of interest.

I. M., æt. 32, insane two weeks, died in one year from that time. She had several miscarriages, and the children living, as well as the patient, had shown signs of syphilitic affection. The husband's history confirms this conclusion. She passed through a brief period of melancholic excitement

during lactation; she threatened to poison herself, or throw herself out of the window, and had threatened her children's lives; she had a strong animus to her husband, and entertained delusions regarding his relations with the nurses. In a very few weeks she became quite demented, but in a feverish state of restlessness, with destructiveness, tearing to pieces clothing, bed-coverings, etc. Her speech became entirely paralyzed, the pupils were unequal, and did not respond readily to light. In the eighth month of her disease she had an attack of hemiplegia. She then became bedridden, and at the last sank rapidly and died. On post-mortem examination, the characteristic morbid appearances were found in the brain, and also left lobar pneumonia, though no clinical symptoms, not even a rise of temperature, occurred during life.

Case beginning with a Congestive Attack.

Robert M., æt. 34, stupid, mentally clouded, but had hallucinations of hearing. Said he heard people telling him to do things. Tongue tremulous. Left pupil larger than right. Plantar and knee reflexes exaggerated. Mentally cleared up, and was discharged, but a few months later was sent back to the asylum with marked motor symptoms of rapidly-advancing general paralysis. It is probable that on his first admission he must have had prior thereto an attack of cerebral congestion (congestive attack), and that recovery from it was taking place even before his admission.

Case with Epileptiform Seizures. Rapid Course.

John W., æt. 45. First symptom, restlessness at night. This, by the way, is a frequent first warning. Epileptiform fits followed. Sexual desire very strong, but could not be gratified. Naturally temperate and careful of money. Slight accident to left foot two years previously. Tabic gait, weaker on left side; grip jerky and spasmodic in left hand; speech slow, interrupted, and slurred. Absence of tendon reflex. Left eye blind from injury. Died a year after admission.

Case probably Syphilitic. Mental Integrity very good.

D. N., æt. 59. Probably a syphilitic—at any rate, a gonorrhœal history. Excited and exalted. Declared this to be heaven, and a few days later said he had been round the world in the last two days. Pupils small, immobile; tongue protrusion jerky; speech thick and interrupted. Said he had a letter about his wife, and that she was dead —a delusion. Pains in right side, followed by hemiplegia. Accessions and recessions of strength from day to day. For a general paralytic, was particularly accurate in observing and reporting his symptoms. Hallucinations of sight and taste. Bedsores on right buttock, blisters (trophic neurosis) running down right arm and wrist, later on left arm, then coma, convulsions, and death.

Case with Motor Symptoms the more General and Prominent at the Outset.

M. E., æt. 41. It would have been rather difficult to certify this man insane a year ago, for he possessed a fair share of intelligence, was quiet, well conducted, and a useful member of society. All that could be found wrong mentally was in his manner and carriage rather than in anything he said. He looked a man who thought very well of himself, but the mental failure now very perceptible—the weakness of memory, want of method, confusion of ideas, and delusions of exalted character—was not at first noticeable. The nervous phenomena gave a clue to the nature of the case.

The pupils were equal, contracted regular; the consensual light reflex slight and slow: the direct light reflex was good, the accommodation good, and there was no colour blindness. Reflex dilatation was impaired, but fairly marked on shouting or electrical stimulation. Smell good, hearing fairly good. Dynamometer R. 100, L. 90. Knee reflexes increased. Superficial reflexes and ankle clonus absent. Tongue and speech tremulous, and the facial muscles showed fine tremors when he was the least excited. A few

months after admission he had a faint and momentary seizure, probably epileptiform, and since then he has degenerated mentally.

General Paralysis not at first suspected. Grandiose Delusions for Five Years without marked Motor Symptoms.

R. S., æt. 36. This man had been in America for some years. On admission he had the delusions that he was a general and owned property in the neighbourhood, and shares in several public companies. The only motor symptoms observed for years were small pupils, tremor of the tongue and of the left depressor alæ nasi. There were cicatrices, skin eruptions and other conditions suggestive of syphilis, but not very conclusive. He suffered from strange sensations, particularly he averred at the site of these cicatrices, a feeling as if a battery was connected with these spots. He wanted mustard for his mouth 'to heat the nerve.' He developed delusions of persecution, got more and more shaky and tremulous, had an attack of right hemiplegia, after which his speech became more affected, and from that time onward the downward general paralytic course was rapid. He died after being nine years insane.

CHAPTER XII.

EPILEPTIC INSANITY.

The general mental character of the epileptic apart from insanity—Rules for guidance in giving a prognosis as to the probable development of insanity in cases of epilepsy—In epileptic insanity we must have regard to two phases of the disease : (*a*) the every-day mental habit, (*b*) breaks in the continuity of that habit—Types of mental habit and general mental character and disposition of epileptics—Mental disturbance : (1) before fits, (2) after fits, (3) in place of or independent of fits—The nature of the mental disturbance—Diversities of mental disturbance—Charts—Diagnosis—Prognosis (*a*) regarding risks of excitement and violence in relation to attacks, (*b*) as to the cure of the epilepsy, (*c*) as to the cure of epileptic insanity—Treatment—Clinical illustrations.

Epilepsy with Sanity.

This term embraces all forms of epilepsy not considered mentally peculiar to any serious extent. It must be remembered that the epileptic reputedly sane is rarely as other men in his mental condition ; there is usually more or less mental twist. And yet we know that many epileptics never become insane, for it is reckoned that about one-half of them escape this climax of a most terrible disease. Of this half, however, it is true that they almost invariably exhibit in their mental lives a more or less diminished reflex of the mental symptoms of their more unfortunate brethren. Like them they are liable to attacks of irritability and passion before or after fits, are sometimes subject to hallucinations, periods of mental confusion, suspicion, and stupidity, and frequently are disturbed by restless, wandering impulses. In addition they are often characterized in their regular everyday lives —apart from fits altogether—by a changeableness of dispo-

sition, a strain of ill-regulated religious feeling all the more astonishing that the moral nature is ill-balanced, and the sense of truth and right is by no means acute. They are apt to be contentious and quarrelsome, and some of the most unseemly church disputes that occur from time to time are stirred up with malignity and unbridled passion by epileptics. Not infrequently is observed a slowness and hesitancy of speech, more often noticeable in epileptic insanity. Ross and Wylie have drawn attention to aphasia after fits, and among the epileptic insane disorders of speech are even more general.

Epileptic Insanity.

From this description is excluded epileptic idiocy and imbecility. A grave question regarding epilepsy at any time, but especially in youth, is the risk of insanity supervening sooner or later. The prognosis is difficult because so many escape, and because remarkable exceptions tend to upset all preconceived doctrines now and again. Savage relates the case of a dull boy who at puberty began to take fits, and brightened up intellectually; he forged ahead at school, ceased to be epileptic in three years from the first attack, and is now a strong healthy man. He ought to come forward as a clinical illustration of a most erratic development. This phenomenon notwithstanding, we may accept the following rules as guides to prognosis:

1. The earlier the appearance of epilepsy, the sooner does a mental aberration or defect show itself, and the more serious becomes its character.

2. Where epilepsy appears late, the mind is not so seriously involved, and the intellect is less impaired as a sequence. If insanity supervenes, it is usually in the form of maniacal attacks, though sometimes the form is melancholia.

3. When epilepsy appears after maturity, and insanity soon follows, organic changes in the brain or neighbouring structures are more evident and extensive; there is probably gross brain disease.

Epileptic insanity differs from general paralysis almost to an opposite extreme in the density and areas of its distribu-

tion. Sparsely-populated districts have their full share of cases, sometimes more than dense centres of population; and this is also true, and in a higher degree, of epileptic idiocy and imbecility. The number of epileptics in English asylums is stated by Savage as 9 per cent.; the number in Scotch asylums is about 5 per cent. The female percentage is lower than the male, and the death-rate is higher for men than women. The occurrence of epileptic insanity is more frequent during puberty and adolescence than in later life.

Ætiology.

The causes of epilepsy are presumptive causes of epileptic insanity. Epilepsy, idiocy, and insanity are not infrequent in the same family history. I have notes of one family where the mother, now an old woman, has been epileptic for the greater part of her life, with well-marked mental characteristics of epilepsy, but no insanity. Of two sons, one is a sane epileptic; the other, recently deceased, was hemiplegic since boyhood from cranial injury, later became subject at long intervals to epileptic seizures, and after he came to manhood insanity appeared. In middle and advanced life we find epilepsy, and its sequel insanity, as the result of cranial injuries, syphilis, alcoholic excess, mental strain, and shock. It has been known, though rarely, to end in general paralysis, and chronic insanity sometimes has epilepsy grafted into it.

It is taken for granted that in the majority of cases epileptic insanity is a natural result of epilepsy; in other words, that the neuro-vascular agitations of the epileptic seizures gradually induce mental instability, which finally precipitates insanity. To still further add to the perplexities of the argument, the undermining process is more potent in the male than the female. It is probable that other causes have to be reckoned with—family history, sexual excess, and alcoholic excess, for example, apart from the factor of epilepsy.

If we look at epilepsy and epileptic insanity in their broadest bearing, not having regard merely to typical instances which cramp our views, but observing carefully

the endless varieties of the disease, and the analogues seen in other forms of insanity, and in certain physiological periodic functions, the impression becomes clear that, while the identity of the underlying processes may differ, there is in all cases a law of gathering tension and relief, a charge and discharge of energy. The startling suddenness of the epileptic seizure, its unique manifestations, make it appear *sui generis;* but it is merely the louder and more striking emphasis of a general law which may be physiological or pathological. The degree of tension is as the resistance, and relief may sometimes find its way through unaccustomed channels. Clouston disputes the view of Hughlings Jackson, that in cases of *petit mal* and slight convulsions the explosion, not finding vent in a motor form, is more apt to extend up into mental centres. He objects to the term 'explosion' as applied to anything mental. Call the term what you please, the fact is as stated by Hughlings Jackson, and experienced observant attendants will tell you in the wards, pointing to individual cases of epileptic excitement, that the patient has only had 'choked-off' fits, and that as soon as a major fit appears the mental symptoms will subside.

Symptoms.

In epileptic insanity we have to consider two phases of the disease: *first*, the everyday mental habit and character of the patient; *second*, the breaks in the continuity of that mental habit. The breaks are occasioned by or associated with the onset of epileptic seizures, or they may be mental incidents such as larvated epilepsy. The accompanying charts illustrate from actual cases the chequered life history of the epileptic.

The first phase, what is here called the every-day mental habit and character, may sum up three-fourths of the man's life or more, but its duration varies in the same individual at different times. In a sense it is his normal state, for it is the nearest approach to mental health in which we find him. Here is an exaggeration of the mental peculiarities observed in the sane epileptic, and under the mental habit we recognise at least five different types:

Type (*a*).—Sulky or serious, irritable, impulsive, quarrelsome, obstinate, unreasonable, full of complaints, vindictive, and at times violent, but devotional and attentive to religious forms and ceremonies. The greater number belong to this type.

Type (*b*).—Sociable, helpful, companionable, bright and genial; religiosity. A smaller number belong to this type. These two types may be seen at different times in the same individual.

Type (*c*).—Agreeable but deceitful, and treacherous, resentful, mischief-making, stirring up strife; religiosity. A fair proportion of this class.

Type (*d*).—Sad of aspect, inclined to melancholy and suicide; religiosity. A few come under this head.

Type (*e*).—Demented, no speech, limited intelligence, mental reaction almost *nil*, irritability, sometimes *nil*, at other times in all its primary force, ideation slow. All who survive long enough ultimately reach this stage.

Epileptics are noted for their cleanliness and tidiness. They like to be tight about the neck, and in bed they keep their heads under the bedclothes, which are features the opposite of what one would expect. They are fond of collecting and hoarding worthless articles, and this they often do automatically when dazed after fits. The epileptic is fanciful about his health, thinks a great deal about himself and what he shall eat. He is gluttonous, and often dissatisfied with his meals and hard to please. However unreasonable and irritable he may be in his habitual disposition with others, he is most patient, tolerant, and sympathetic with his fellow-epileptics when in their epileptic state or furor. His helpfulness and tact are wonderful in such cases. As the disease progresses, the mind becomes more and more clouded, memory fails, initiative is lost, and he does things only when he is told to do so. There is an increasing mental ablation; there is no volition or active regulating intelligence. The emotions are gradually wiped out, and the angry passions are reduced in frequency and intensity. Their speech is often slow (bradylalia); sometimes, as when excited, it is rapid, but the words may not be articulated

perfectly. Their utterance is peculiar to epilepsy, and quite different from that of general paralysis, often slowly drawled out, with frequent stops as if certain words hung fire for a moment. But there is rarely observed the convulsive or trembling excitement of the facial muscles seen in general paralysis, or in stuttering. The speech defect may be temporary, *e.g.*, after fits. It may be amnesic, or it may be motor.

The breaks in the continuity of the mental habit, giving to the disease its most striking character, are due to mental disturbance or epileptic seizures. Excitement may occur without seizures, and *vice versa;* but it is the rule to find the one in the wake of the other.

Mental disturbance may occur: (1) before fits; (2) after fits; (3) in place of or independent of fits.

Mental disturbance before fits is often of an acute maniacal type; sometimes it may consist of mild exaltation or hallucinations, rarely there is suicidal depression. After a day or two, the fits replace the excitement, stupor follows for longer or short periods, and the patient then returns to his usual habit. The mental disturbance may be so brief as to be merely a mental aura; thus, a patient barks like a dog, another begins to play tricks on other patients; one cries out that he sees eight beasts before him, another sings psalms and hymns; one sees a woman coming to strike him with a blue hammer, another sees angels on a wall waiting to take him to heaven when he dies. In some cases the mental disturbance is so transient and so rapidly followed by a fit that it may be regarded as a true mental aura.

Mental disturbance after fits is more frequent. A patient may take one or more fits before the mental furor breaks out, usually several fits; but it must be borne in mind that a paroxysm of excitement is not determined merely by the number of the fits. It is still a moot point whether *petit mal* is not as productive of excitement and violence as *grand mal*. I have endeavoured by careful inquiry to gather evidence that would justify a ruling on the subject; but Nature is impatient of rulings. I find that in the male wards *petit mal* is regarded as provocative of excitement and impulse as much as *grand mal*, while in the female wards the patients

are said to be more amenable after minor fits, but seem to deteriorate mentally at a more rapid pace than those who are more subject to major fits than minor. This confirms my experience in another asylum. Nocturnal epilepsy seems to be graver as regards the amount of mental disturbance which follows it than diurnal epilepsy. As illustrating the mental outcome in relation to particular phases of epileptic seizure, the following observation by a brother regarding a male patient is very much to the point: 'When the fits come regular the mind is better, when irregular the mind is worse.' A certain allowance has to be made for the individual. Those who know him best can best prognosticate. Epileptic insanity differentiates beyond the reach of general principles in a variety of ways.

Mental Disturbance without Fits.—This form is one regarding which a good deal of controversy has arisen, and it is sometimes confounded with the *epilepsie larvée* (masked epilepsy) of Esquirol and Morel where a seizure has been slight, and succeeded by automatism in a subconscious state of which there is no recollection after. We will take these separately.

(*a*) *Mental Disturbance in Place of Fits.*—The existence of this form has been denied by some eminent authorities, who assert that there must have been a preceding seizure which escaped detection. Some force is given to this objection by the fact that after attacks of *petit mal* a mental disturbance breaks out in an exceedingly acute form, and attended with violence. It is contended that many attacks of *petit mal*, being transient and shadowy, must escape notice, and that it is practically impossible to prove that there has been no such seizure. On the other hand, well-known cases are on record of epileptics becoming suddenly excited in church, preaching and declaiming, then quickly subsiding, and being unconscious of the occurrence afterwards. It is difficult to prove a negative; but with trained attendants and nurses assisting, the evidence is stronger to-day in favour of attacks of mental derangement without precedent *petit mal* than it was some years ago. It must not be supposed that all excitement without evidence of fits is of this form. There is more or less potential excitement in epileptics at all times,

unless they are demented, and they may sometimes be quickly roused by external causes.

(*b*) *Epilepsie Larvée.*—As Savage points out (Tuke's 'Dictionary of Psychological Medicine'), there is doubt as to whether the automatism is a part of the epileptic discharge, or a post-epileptic state. Epileptic automatism, which has been confounded with somnambulism, is often nocturnal in character and of grave significance, as homicidal, suicidal, or other acts—theft, for example—may be committed in this state, the patient being more or less unconscious, and memory being a blank afterwards. Savage has recorded a case in *Brain* of whom it was said that his relatives had been able to get him to sign cheques and do other things with his property while in this state. I have had a few cases of this kind; but they are rare, and the automatism is the distinguishing feature. One was that of a gentleman who lost consciousness in a certain street, and recovered it a mile further east. There was no fall, no disordered or soiled clothes, and it is probable that it was a case of *petit mal* followed by automatism. Sibbald, referring to this subject (Quain's 'Dictionary of Medicine,' last edition), says: 'In this state the patient will walk long distances without object, steal or destroy articles in an unaccountable way, and will commit suicide or homicide with apparent deliberation. They seem insensible to everything that does not fall in with their dominant idea or impulse. The patients are as in a waking dream.' When they wake out of it, they feel as if they had had a bad dream.

The Nature of the Mental Disturbance.—The typical epileptic furor, as most frequently seen, is that which succeeds fits. The patient may be disturbed out of his post-epileptic stupor, and without warning make a spring at someone. The excitement may burst out suddenly, or it may gather force, like a storm on the horizon coming nearer and nearer. It is blind fury; reason has fled. The man is ready to fight with his own shadow. There are two features which have been specially noticed and emphasized by Jules Falret: (1) The greater rapidity of the invasion compared with other forms of mania; (2) the absolute resemblance of all the

attacks in the same patient, even in every detail. It resembles ordinary acute mania; but differs in being more violent and impulsive, in being more frequently complicated with hallucinations, especially of sight and hearing, and in being of shorter duration.

Two outstanding symptoms of the furor are *irritability* and *impulsiveness*. There may be no personal animosity to anyone in particular; or, on the other hand, there may be a suspicion, a smouldering hatred before a fit, which is revived after it with maniacal intensity. There is a state of high nervous tension in either case, an irritability that cannot bear to be ruffled in the faintest degree. The accidental rubbing against his elbow, a creaking noise on the floor, a scraping noise with a chair, produce a mental irritation which is instantaneously transformed into a violent impulse. In some cases the sudden rise of the storm is seen before as yet an object on which to vent it comes across the range of vision. Then any object will do, animate or inanimate. You may frequently see epileptics swoop down upon the most unoffending victims. When the dread spell is broken, and the man comes to himself, there is no recollection; it is all a blank.

How far or how often the excitement and impulsive violence of epileptic insanity are the outcome of passion with no mental initiative, and to what extent and how often intellectual disturbance plays the initiative part, must be partly conjecture. This fact, however, is certain, even though not always clearly expressed by the patients, that hallucinations give rise to imperative conceptions, that they are sometimes terrifying and maddening in their effects, and that probably the unrestrained violence is largely due to sensory disturbance of this kind. The hallucinations most common are, in their order of frequency—sight, hearing, smell. In the state of furor, be it long or short, there is always danger of homicidal violence. The epileptic in this state is not responsible. The germ of the morbid impulse may be suspicion; the epileptic is an easy prey to such a state of mind; the merest suggestion gets admission to his mind at once. After fits there is muscular fatigue, a feeling of having been beaten, aches and

pains, mysterious sensations in the abdomen, in the head, or anywhere else. A man crosses the field of vision before the epileptic has come to his right mind. He is not himself yet: like a flash without reason, the sensation and the object are associated. From suspicion to impulse is but another flash, and in a moment there may be murder.

Epileptics, when apparently out of the maze and in a right state of mind, are given to making groundless charges of ill-usage against their attendants, and in some cases a personal ill-will suspended by the onset of a fit may be revived after it with fresh intensity. As already said, they may be acting under the spell of hallucinations—voices impelling them to kill, visions of attack that compel them to defend themselves with bloody ferocity, or there may be actual delusions of persecution which prompt the assault. Happily for the patient, almost everything is a blank afterwards; but this advantage militates against our obtaining a complete state of the case. In a case of murder committed by an epileptic, I was unable to rouse any gleam of recollection; nor immediately subsequent to the event, when daylight streamed into the cell where his victim and he had been locked in together, did the sight disturb him in the least, or awaken any recollection. Dr. Clouston relates the case of a young epileptic whose habitual disposition was friendly, but who conceived a deadly hatred of him after fits. On one post-epileptic occasion he was found alone with another patient contriving a weapon with which to kill the doctor. When he recovered from the attack he had no recollection of it whatever. According to Falret, the termination is as sudden as the invasion. This statement may be taken with reserve, for there is sometimes a dazed condition lasting for hours or days after an acute attack of excitement, and the patient is not to be trusted.

Diversities of Mental Disturbance.—The preceding description is good for well-marked typical cases, but there are many varieties of epileptic insanity which bear only a family likeness to it. Nor must the absolute resemblance of the attack to its predecessors be too strictly insisted upon, although the statement is remarkably near the truth. A

patient may have a series of minor fits at one time, and of major at another; but the mental sequels are not necessarily the same. He may have suffered from constipation during one attack of excitement, and have his bowels well cleared out previous to another; the mental condition in the one case is likely to be more acute and prolonged than in the other. Further, it must be remembered that occasionally mental disturbance precedes and succeeds fits in the same individual.

The maniacal form is the most typical. It may be delusional and attended with hallucinations, it may be characterized merely by irritability and impulsiveness, or it may be distinguished by symptoms of loud exaltation, a happy religious feeling, the singing of psalms and hymns, and quarrelsomeness if interfered with. A melancholic form is rare, and especially so with marked suicidal impulse. According to Clouston, this usually results from voices telling the patient to commit the act. The most determined case I have known—a woman—suffered from suicidal depression before fits, and was safe once the fits appeared. There were no hallucinations in her case. Masturbation has been alleged as a habit frequently indulged in by epileptics, but my experience does not accord with this statement, except in the case of congenital epileptics of the idiot or imbecile class, and sometimes when waking up after fits.

A case to which I will now refer illustrates the diffuse nature of epilepsy, and the probability that the borders of the lesion are not so exclusively confined to motor areas as many suppose. Sam A. is of an epileptic family; his brother John from childhood has been subject to genuine fits of motor epilepsy, and has been under my care. Sam is subject to periodic attacks in two stages—*first*, sensori-melancholic; *second*, motor excitement not convulsive. In the first stage the symptoms might be those preceding an attack of epilepsy, viz., melancholy, crying out that he is to be killed, hallucinations of sight, reads his doom on the ceiling, refuses food. In the second there is restlessness, continual hopping about from one place to another; the melancholic symptoms have disappeared, he talks incoherently, and

frequently bursts into laughter. There has never been observed an attack of *petit mal*, or a convulsive seizure; but having regard to the family history of epilepsy, the periodicity of the attacks, their sameness, and the predominance of the hallucinations at one time, and motor excitement at another, it seems probable that this is a phase of the epileptic neurosis.

Diagnosis.

The diagnosis of epileptic insanity is easy. To establish the fact of epilepsy is the chief point of attention. Hysterical fits may simulate epileptic, and epileptics not infrequently simulate epileptic seizures themselves. There may sometimes be a difficulty in differentiating from general paralysis, but the mental symptoms are quite distinct; the resemblance of speech may sometimes be puzzling, but the other motor features are absent. It may also be necessary to distinguish from syphilitic disease of the brain, but the syphilitic history, the partial nature of the convulsive seizures, the absence of the motor troubles and nocturnal cephalalgia which characterize syphilitic affections, will aid the diagnosis.

Prognosis.

(*a*) *Regarding the risks of excitement and violence in relation to attacks.* It is not possible to speak with a clear note of authority in all cases. It is well to study individual cases in the light of previous experience of such cases, for there is a tendency to repetition and periodicity in the mental attacks. This tendency is broken up somewhat by treatment, especially the exhibition of the bromides. Where there has been a long spell of freedom from fits, and they appear in a series, long or short, the probability is that a mental attack of unusual severity is imminent. In females special precautions should always be taken at the approach of the menstrual periods. In some females fits only come on in relation to this function, but not of necessity at any particular stage.

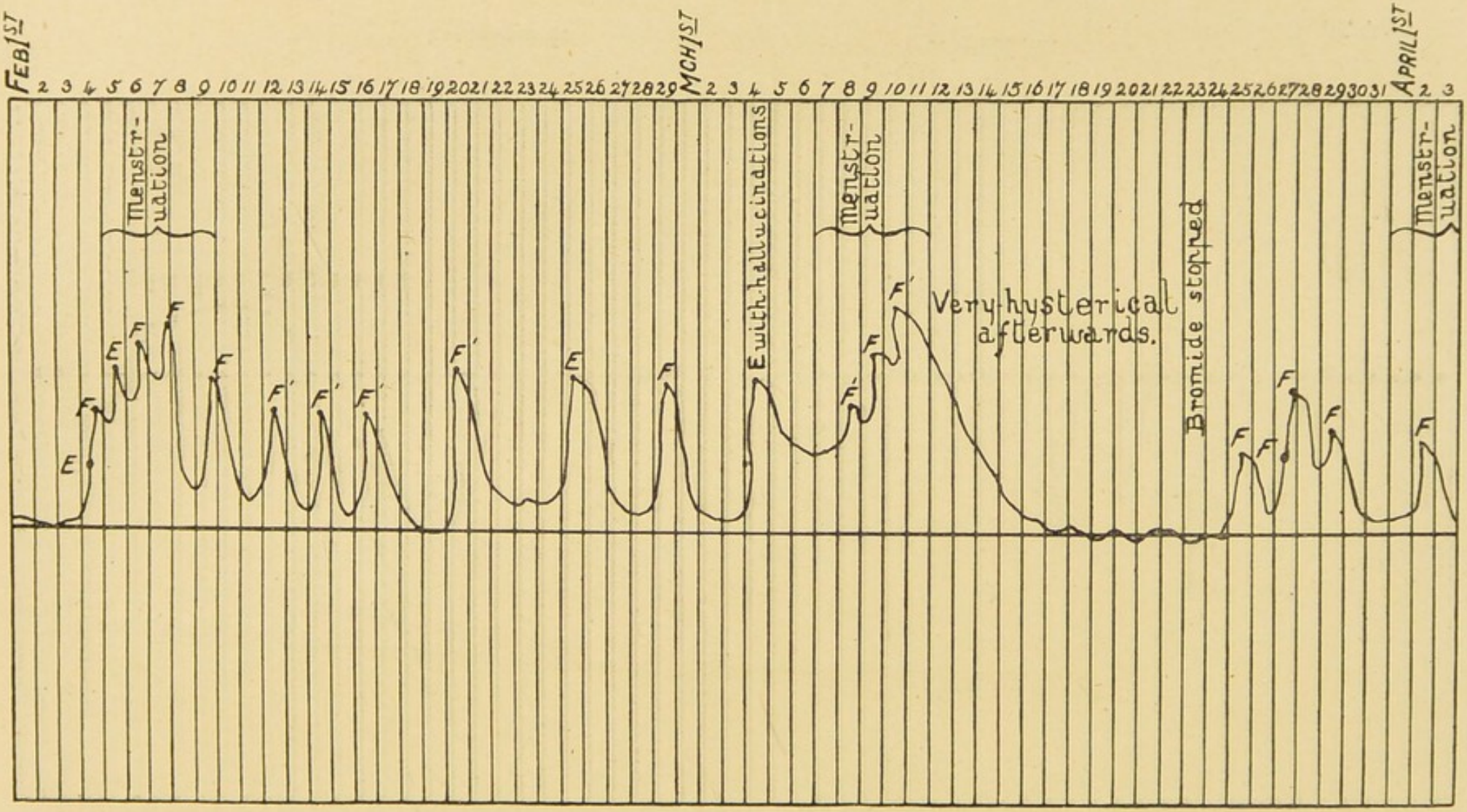
(*b*) *The cure of epilepsy* is practically hopeless after puberty, although there are some astonishing exceptions; but not so during childhood and puberty. With very great care in the

supervision of education, diet, and physical training, much may be done for the incipient epileptic in early life.

(*c*) *The cure of epileptic insanity* may be effected where the vice of masturbation is not a confirmed habit, and where there is no evidence of gross lesion of the nervous system. The most successful cases are those in which insanity appears during the middle period of life, and without grave organic disease. The prognosis is bad if there is evidence of mental failure, the signs of oncoming dementia. If the fits are diurnal and of the major type, the prognosis is said to be better than when they are nocturnal or of the minor form.

Treatment.

(*a*) *Of Epilepsy.*—This is a question much disputed. Some asylum physicians believe that the bromides hasten the down-grade of the epileptic mentally and physically. My experience confirms Clouston's, but with a reservation. Clouston appears to me to state the case in favour of the bromides too strongly. In deference to the strong views of others, I have stopped the use of bromide of potassium for a year, and the result has been an increase of the day-fits by 60 per cent., and an increase of the night-fits by 14 per cent. My experience is that of others, that only day-fits are benefited by bromide, and that the potassium salt is the one most generally successful. It is usually given in 30 grain doses four times a day. Epileptics are very punctual in turning up for their dose; they believe in bromide as much as in their Bible. Bromide is a drug that should be given warily in the case of children, and also at puberty, for it often does harm rather than good. It is a wise precaution in all cases to intermit it every fourth week, or otherwise as may be indicated. Nor is it desirable to push it where the fits are infrequent—say one in a month—if the epileptic neurosis is clearly established. I have stopped it for three years in such a case, with the result that the patient is better than when he was ringing the changes on all the bromides, separately and in combination, and had, under the experienced advice of an eminent physician, tried other drugs and combinations as well. Borax in 15 to 30 grain doses several

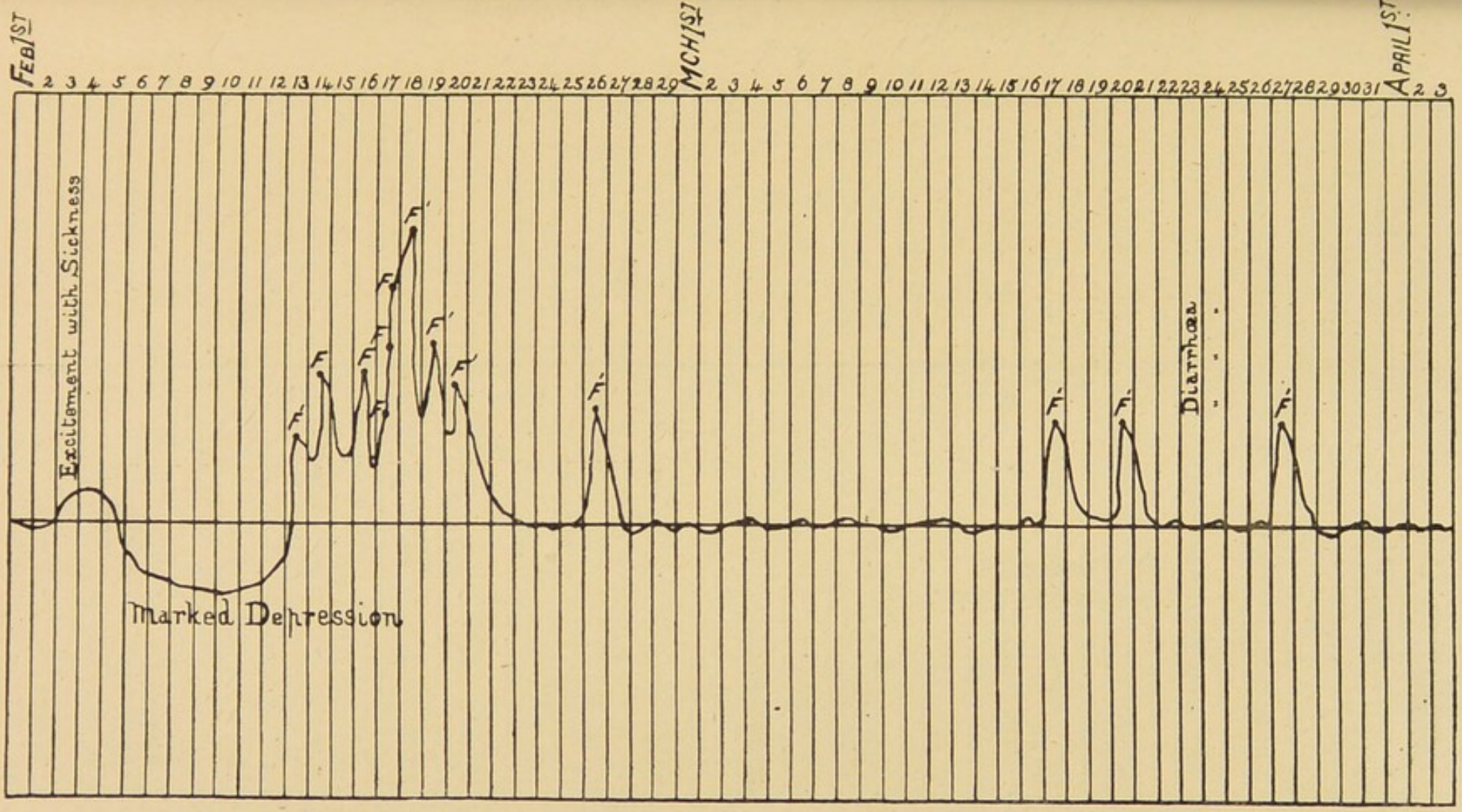


E = Excitement. F = Severe fit. F′ = Milder fit.

N.B.—No bromide was taken after March 23.

Mrs. H. B.

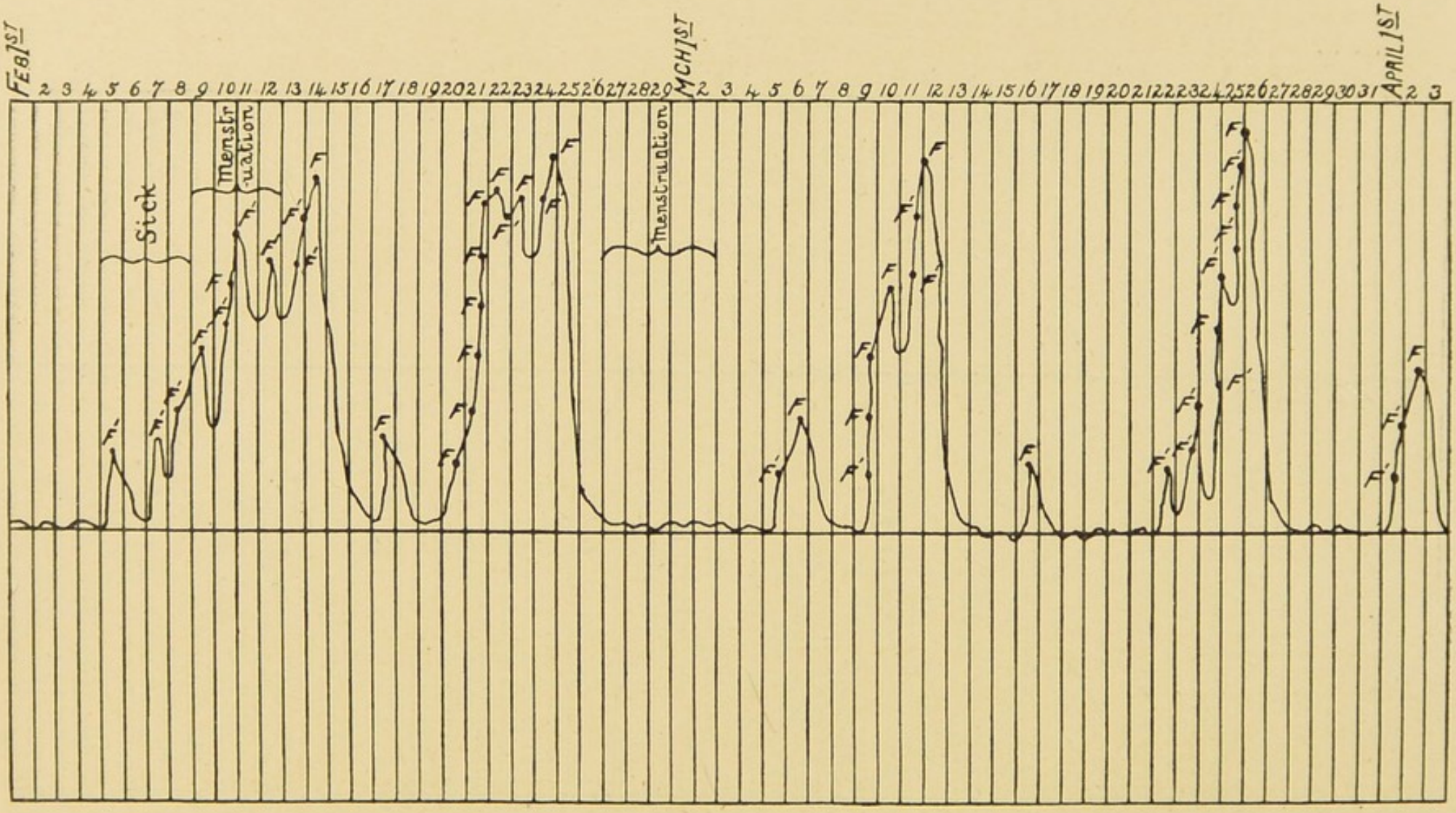
To face p. 237



F = Severe fit.

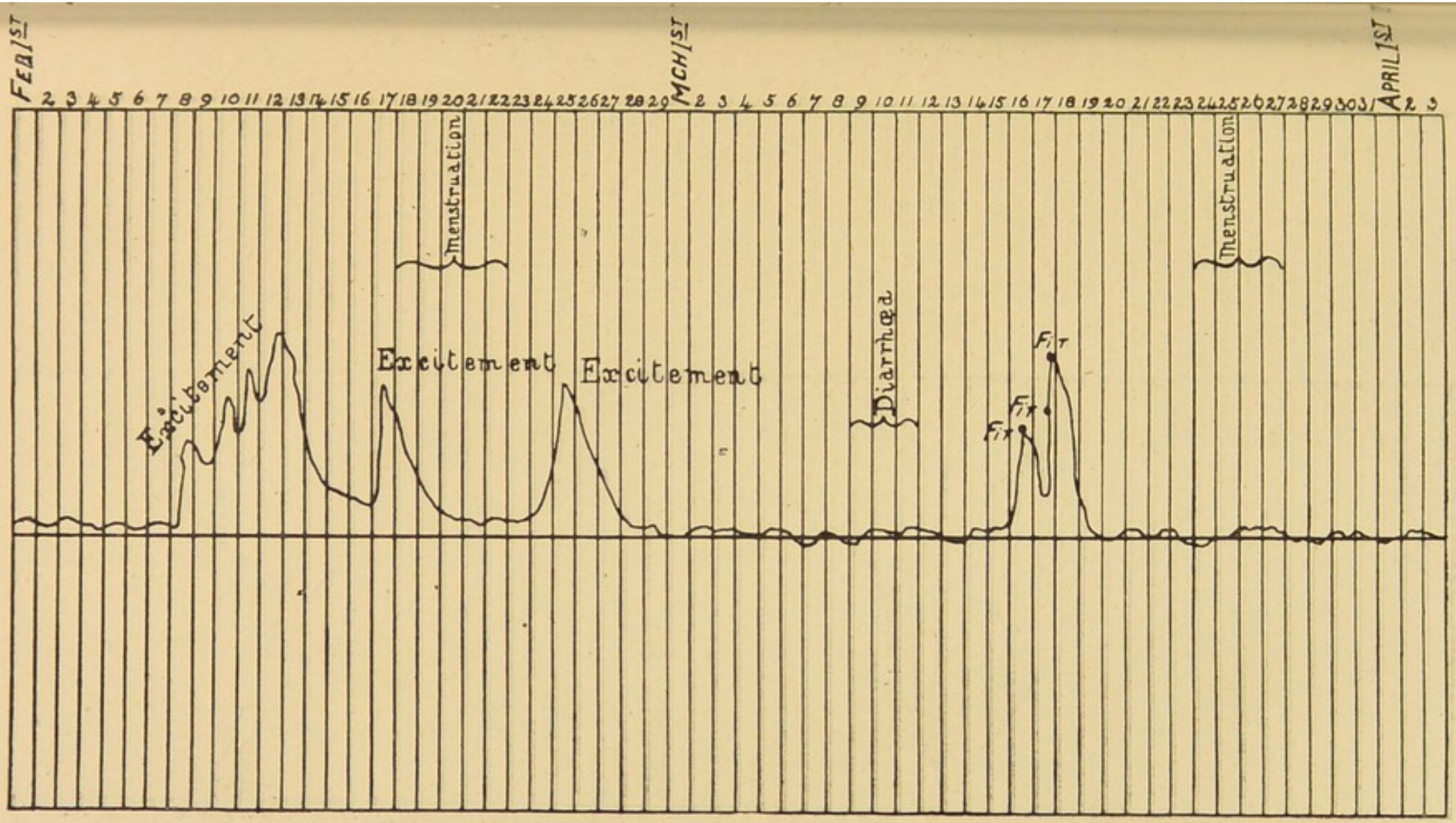
F′ = Milder fit.

M. M.



F = Severe fit. F′ = Milder fit.

K. M.


FEB 1ST
MCH 1ST
APRIL 1ST
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
2 3
Excitement
Menstruation
Excitement
Excitement
Diarrhœa
Fit
Fit
Fit
Menstruation

R. A.

times a day has been recommended by Gowers. A course of opium increasing up to 15 grains daily, followed by bromide treatment, has been advocated by Flechsig, and it has been tried in America. We have given it an exhaustive trial, and can speak of it as one worthy of consideration where the bromides fail. Other drugs too numerous to mention must here be passed over without notice. Epileptics who have undergone surgical treatment for causes other than epilepsy enjoy a long immunity from fits after. Whitcombe relates a case of recovery after many years of epilepsy subsequent to a surgical operation. I now come to a very important consideration, viz., the state of digestion and the condition of the bowels. The initial movement of the epileptic discharge does not always take place in the cortex; peripheral excitants have to be reckoned with, and of these the irritations of indigestion and constipation are most important. Herter and Smith, who have made researches on this subject (*New York Medical Journal*, 1892), regard putrefactive processes in the intestine as exciting causes of seizures. The diet of epileptics should consist of food easily swallowed—butcher's meat chopped or minced—easy of digestion, and not likely to give rise to flatulence. Very little tobacco should be allowed. Stimulants are contra-indicated. The bowels should be regulated, all the more because epileptics, if allowed, will eat over-much. It is well to warn also against some of the risks run by epileptics: (*a*) Choking during a fit. Seizures are not uncommon during meals. The friends and attendants should be forewarned, and instructed what to do in such cases. They will therefore find the following rules serviceable: (1) Never allow an epileptic to have food that may easily choke him when in a fit, such as fish with bones, tendon, gristle, and tough pieces of butcher's meat; (2) before breathing is quite restored, and clonic spasms begin, open the mouth with the handle of a spoon, and shell out every particle of food, if necessary getting the finger well back through the fauces to hook out anything there. (*b*) Bathing. This is a risk the forgetfulness of which has cost epileptics their lives. Epileptics should never bathe alone.

In the status epilepticus, when there is often imminent danger to life, strong cathartic enemas are indicated. Antimony may be useful, but blood-letting, especially venesection, is of more avail. Dr. Alexander Robertson has written me recommending the cold douche 12 to 18 inches above the head, especially over the motor area, the finger being on the pulse all the time. I have not yet had an opportunity of trying this treatment.

(*b*) *Of Insanity.*—If you reduce the fits, you reduce a potent exciting cause of mental disturbance; but insanity having once broken out, or when there is danger of it doing so, what is best to be done? It is important that the patient should be left alone after fits, and not moved about, if at all possible. A room to himself, quietness, and time to sleep off the effects of the fit, are of great importance. A good attendant or nurse is of the utmost service; if they are active and strong, all the better, but tact is the quality most required. Epileptics do not take kindly to strange faces, and the man who is most familiar to the patient, and who has gained his confidence, can do most with him, and is most likely to guide the course of his paroxysms with the least friction possible.

The question may come before us as medical men at any time, Should epileptics marry? This question will be regarded from two points of view: *First*, that epilepsy does not necessarily imply insanity; *second*, that, notwithstanding this reservation, epilepsy is almost invariably an *ad vitam* neurosis with grave risks. Every case will be judged on its merits; but, in the words of Echeverria, we may say that 'a serious responsibility rests upon any physician who counsels the marriage of epileptics, both as regards the parties themselves and the future of the offspring.'

In the Middle Ages strong views prevailed on this subject, and the same authority quotes Boethius, who in his 'Croniklis of Scotland' writes of the custom among the primitive Scots in these words: 'He that was trublit with the fallin evil, or fallin daft or wod, or havand sic infirmite as succeedis be heritage fra the fader to the son, was geldit, that his infectit blude suld spread na firther. The women that was fallin lipper, or had any infestion of blude, was banist fra the

company of men, and gif she consavit barne under sic infirmity baith she and her barne were buryit quik.'

From the preceding description of epileptic insanity, it must at least be evident that it is a disease of many manifestations, even in the same individual, and several carefully-prepared clinical studies will be here brought forward, so as to give an adequate comprehension of the many-sidedness of the disease.

Clinical Cases.

I. Epilepsy appearing after Age of Twenty-three. Marriage, Religious Melancholia, Violent Outbursts, Recovery.

A. B., æt. 32, mechanic; insane a few days before admission. 'Religious melancholia; says he is suffering for the sins of his youth. Mistakes the identity of the person with whom he converses.' This is part of the medical statement received on his admission to the asylum. Under bromide and general treatment he soon settled down, and for five months was almost entirely free from fits, and also from excitement. He worked in the garden every day, made himself useful in the house as well, and was in all respects a most intelligent, rational, agreeable man. It was decided to discharge him, but, in order to run no serious risk, the bromide was discontinued for a fortnight in order to judge of his nervous stability without it. A week later he had fits for three nights consecutively, and it was manifest to all, after the second night, that a storm was brewing. The first sign was a breeze of words on religious matters with some other patients in the same dormitory. From less to more, irritability, suspicion and excitement gathered volume until his violence broke out on some unoffending victim and he was put in the padded room. What happened afterwards will come out in the following report of a clinical demonstration to medical students, after he had recovered from the attack.

The general aspect of this man betokens mental depression, partly due to reaction from his violent excitement, but in great measure it is the natural disposition of the man.

Q. Well, Alick, what was the cause of your coming to the asylum?

A. The fits ; and I was brooding because I kept the knowledge that I took fits from my wife before marriage.

Q. Did your wife reproach you ?

A. No.

Q. Your wife found it out, and this preyed on your mind ?

A. Yes.

We sent him out to work after he settled down into rational ways. He took only an average of one fit a month for five months, and then we decided to send him home.

Q. In less than a week after the bromide was stopped, how many fits had you ?

A. I had three night-fits.

By some night-fits are considered of more serious import than day-fits ; but I have cases that never take day-fits, and they are by no means more dangerous than others.

Q. After the first two you made a complaint to me about other patients talking a different religion from yours. Do you remember ?

A. Yes.

While in the padded room he was quite beside himself, as madly delirious as any man could be, utterly oblivious to all appearance, and subject to terrifying delusions and hallucinations. He was frantic over the thought that the whole asylum was in flames, and he was to be the victim, and then he had hallucinations.

Q. What were you so mad at the attendants for ?

A. I thought they were mocking me, and trying to make a fool of me and my religion.

Q. Do you remember your escape from the padded room ?

A. Yes.

Q. Could you not resist the impulse ?

A. No. I was carried off my feet with a wild feeling inside me. I had to go.

The attendant foolishly opened the door of the padded room to see how Alick was getting on, instead of using the little window in the door, as he had no second help at hand. Alick, impelled by this irresistible wave of feeling and impulse, sprang out in the fury of his excitement, causing the attendant to measure his length on the floor. One leap across the

corridor and through a window, and he was in a large enclosed court in the centre of which is a fountain. He tried to get out of the court on the other side by smashing with utter recklessness square yards of glass. Failing, however, to get clear away, as there were men on the other side, and by this time men gathered within the court, he leapt on the basin of the fountain, and with one wrench pulled away the metal pipe and spray-producer, and thus, his eyes glaring with fury, he scowled on his pursuers and defied them. It was a dangerous position of affairs for all concerned; but the head-attendant ran forward suddenly from an unexpected quarter with a broom and dislodged him into the soft soil below, where he was quickly secured, torn and bleeding.

When his bleeding wounds were being attended to by one of the doctors, he was very wild and angry, and so oblivious of the real state of the case that he regarded the doctor, who was stitching the wound, with suspicion (probably because he was causing him pain), as the real cause of his lacerated hand.

He only came to realize that the doctor was not at all a bad fellow after several days, and now he is quite free from suspicion. It is just possible, however, that in another attack of the kind he may have this idea regarding the doctor revived; for, as has been already said, there is a tendency to repetition of the same morbid ideas and impulses in every recurring attack of excitement.

This case is very interesting from the fact that he remembers nearly every incident of the attack, for this is quite an exceptional experience. Whether it is due to the very exceptional circumstances, 'the tragedy of the fountain,' as we call it, and to the fact that he was wounded and was allowed to bleed freely, is, of course, mere conjecture. By the way, it is well to remember that it is a good thing to let an epileptic bleed freely, especially if he is full-blooded, and that is generally the case.

Q. You were taking bromide when you were at home?

A. Yes, but not regularly; it came very expensive, especially when I was out of work.

Q. At what age did the first fit come on?

A. About twenty-four or twenty-five.
Q. When did it come on ?
A. At night.
Q. Were you married then ?
A. No.
Q. Was anyone sleeping with you at the time ?
A. Yes, an apprentice.
Q. Was he wakened by the fit ?
A. Yes ; he made me understand that I had taken a fit.
Q. Has there been insanity in your family ?
A. No.
Q. Did your father take drink to excess ?
A. Yes.
Q. Did your mother take drink to excess ?
A. Yes ; but that was after I was born.

There is here probably a history of potential neurosis in the mother. Alcoholic Excess in one or both parents is a frequent precursor of Epilepsy in the Family.

Q. How often did you take fits after the first ?
A. Once or twice a month.
Q. How soon after did you marry ?
A. Five years after.
Q. Did the fits become more frequent after marriage ?
A. Yes.
Q. What is the number of your family ?
A. One—three and a half years old.
Q. Any more on the way ?
A. I think so.
Q. No miscarriages ?
A. No.
Q. Do you know when a fit is coming on ?
A. Yes ; by a feeling of fulness in the stomach.

Subsequent Note.—This man was discharged seven months later, and he comes regularly to see me, and to get a supply of bromide. He is earning full pay, and doing very well. He is of melancholic type ; his expression is still rather subdued and sad, but he has brightened up a little, looks less anæmic, and a smile comes more readily to his face since he returned to the bosom of his family.

II. Case of Epilepsy coming on after Adolescence. Due to Drink. Night Fits, Extreme Irritability, Epileptic Mania, Recovery.

G. G., æt. 37, a miner. A strong, well-built fellow, bright and intelligent, slow of speech, but presenting no other nervous symptoms. His history is as follows, obtained partly from himself and partly from his brother.

Father was a drunkard. G. G. was much addicted to alcohol himself. He was naturally quiet, and kept by himself, but when in drink was extremely irritable and quarrelsome. The epileptic violence broke out in all its fury at the end of a drinking bout, although until the age of twenty-nine he had never been known to have taken a fit. At that time he had a long spell of drinking, and one day went to sleep in the morning in the grounds of a public park. At mid-day he wakened, and thus he described the events that followed :

'The sun was blazing hot, I was almost blind, had an awful headache, went to my lodgings and lay on the bed, and when I came to my senses that night they told me I had had a fit. It must have been a sunstroke.'

The sun may not have been altogether innocent in the matter ; but G. G. might more truthfully have blamed the drink, even if this implied a reflection on himself. He has since taken fits at long intervals, and at longer intervals when abstaining from drink. He takes them almost invariably at night, knows when one is imminent by a feeling of 'lowness of spirits.' He goes to sleep, wakens in an hour, and immediately afterwards the fit comes on.

The chief features here are not prolonged excitement, delusions, and hallucinations, but simply *unreasonableness, gunpowder irritability, and violence.* With him it is easier to strike than to speak. He does not lash with his tongue, but with his fist.

This case is still under observation, although he has been discharged, for he comes regularly for his bromide and laxative pills. Like A. B., he knows that medicine gives him salvation, and he has been working regularly for some

months. These two cases illustrate what was stated at the beginning of this chapter, that epilepsy which makes its appearance late does not reduce the mental powers to any serious extent as a rule—at least, not for many years, unless the fits are very frequent, and it is unusual for them to be so.

III. Mental integrity was fairly good all his life, although Epilepsy came on in boyhood; but it was more Jacksonian in character. The fits were rare. If consciousness was at times abolished, it was a mere passing cloud, and a cranial injury during boyhood, with well-defined cerebral lesion, was probably the exciting cause.

J. R., æt. 27 on admission; tall, broad-shouldered, well built. His mother and brother are epileptic, but neither has been insane, although the mother is distinctly peculiar, and has the mental habit of the epileptic quite evident. J. R. when a boy was kicked on the head by a horse. Trephining was necessary, and over the right parieto-frontal region there is a scalp depression the size of half a crown. The leg and arm of the left side are paralyzed—the arm entirely, the leg partially. This condition of paralysis has been stationary since the accident.

Mimicry was a pronounced feature in this case, and he would probably never have been suspected of epilepsy except for the family history. He, having seen his mother and brother in fits, must have had the memory of the various contortions burned into his brain from his youth upward. Be that as it may, after his admission to the asylum he feigned epilepsy with the skill of a conjurer. The first suspicion that he was feigning arose from the fact that as time went on he played too many variations on his theme, and his attacks of nystagmus, which were as perfect imitations as could be desired, were cut short by the brusque diagnosis of a doctor who saw him for the first time, and suggested that he was a sham.

He certainly took very few epileptic fits afterwards, but they were usually real, I have no doubt, and when he did, for love of sympathy, present a sham one, he was promptly brought

to book over the matter. The chief feature in his case was the religious strain that ran through his whole character, and though he might at times be excited in his states of religious exaltation, he was never profane or violent. He may have swerved from the truth, for in his 'raised' condition the epileptic has no moral regard for it; but that is the worst that can be said of him.

IV. Case of Young Man with Hereditary History of Paralysis—Father died of it—and Family Nervousness, Masturbation, Melancholia — replaced by Exaltation; two years later Epilepsy, Sneezing Fits.

D. D., æt. 25. The attack began with religious depression which unmanned him so that he would spring suddenly from his seat, cry out wildly that his soul was lost, dash his hands on the table, tear his hair, and lose his self-control completely. Was addicted to masturbation. After a year the symptoms changed: there was mild exaltation, but not altogether of unreasonable character. He fancied that his life was a failure because he had not entered a sphere of work suited to his abilities—that his work should have been mental, and not physical. He began afterwards to think his talent not much inferior to Carlyle's.

A year later he was less placid and agreeable in character, showed signs of irritability and impulsiveness, and on one occasion raised a spade to strike an attendant. Four months later he was seized with an epileptic fit an hour after dinner. Although he lived for over three years thereafter, he had not another, so far as known, unless we regard as of the nature of epilepsy sneezing attacks which troubled him, always at night, for over two years, leaving him extremely pale and nervous afterwards, and on one occasion, with intervals between, lasting from 10 p.m. to 12 p.m. The following is a copy of letter written to his mother:

'DEAR MOTHER,

'D. D. is a self-abuser by nature. The asylum attendants have erected a new lavatory; it seems to be well patronized. I was the first patient that ever sat in it. The

attendants have been very kind to me since I came here. I am sorry to hear of your spitting blood, but I hope God will cure you soon. I have been in the habit deserter of cause, do you have to blame your prodigal son if I may assume to be that. I may say this band of my adoption, forgive any wrong that I have done towards you freely as king forgiven, hoping you will meet on better times.'

The last half of the letter shows failure in expression and incoherence, and as his disease progressed this became more and more noticeable. He frequently had sick turns in the morning, with vomiting and slight convulsive movements of the legs, but no unconsciousness. Probably all these symptoms were due to masturbation. He became more and more violent as time went on, and died of lung disease after five years' residence in the asylum.

V. Case of Epileptic Insanity following Intemperance; Periods of Stupor and Automatism; Hypochondriac, Violent.

A. M., æt. 27; not his first attack; has been intemperate; suspicious of his wife's fidelity; hallucinations of hearing and sight. When he has a series of fits he does not wake completely out of the post-epileptic stupor for hours; he remains for some time in a dazed, somnambulistic state, and he goes about in it automatically collecting pins, bits of wire, thread, or anything he can hoard. Sometimes, however, after a fit, the eyes are fixed, the pupils dilated, the face pale, soon followed by a flush over the face; he then perspires freely, the pupils get smaller, and he wakes up. In the former state his bowels have often to be relieved by enemata, and his urine to be drawn off. He frequently, after fits, makes complaints of ill usage, but often his complaints are more hypochondriacal in character, such as that his sight is gone, that his testicles are diseased, etc. He is very shaky and tremulous even when free from fits, also quarrelsome and treacherous even with his fellow-epileptics.

Female Cases.

VI. Depression, Suicidal Attempts, Hysteria, Eroticism, Dysmenorrhœa.

R. B., æt. 26; second attack; was in asylum two years previous. Previous to the first she tried to cut her throat. Several superficial cicatrices are still in evidence below the thyroid cartilage. The day before her second admission to the asylum she tried to strangle herself with a garter, and secreted scissors 'in her breast.' Fits come on usually the night before menstruation, which is painful, and she gets depressed afterwards. Such is the history. The asylum report is brief: 'Slow, hesitating, wailing speech, scared look, wants sympathy, beseeching expression . . . had a fit of *grand mal*, recovered complete consciousness in fifteen minutes after . . . next day had two fits in the early morning and three in the afternoon; thereafter she was strange and absent in expression, stupid, and erotic. Usually mental obscuration before fits, and afterwards brighter.' She made no suicidal attempts in the asylum, where she died of lung disease.

VII. Mental Depression, Running Fits, Strange Visceral Illusions, Aphasia, Recovery.

Mrs. W. T., æt. 46; 'not first attack; cries and wrings her hands; will not answer questions; no history obtained. There is the suggestion of a murmur in the mitral and tricuspid areas. Pulse 96. She is cyanotic and puffy round the eyes. Seems tender on pressure above the umbilicus.' *Four days later*, eyes bright, congested, wobbles her head, and puts her hands on vertex as if in pain. Next day she had a fit during the medical visit. She ran round a table in the ward three times, then fell on her face and became convulsed, but not severely. The pulse was 136, ten minutes later 108, and the breathing became stertorous. Next day she was very excited and violent, struck and kicked anyone and everyone, tore her clothes, said there was a tin box in her stomach, and complained of it hurting her; bowels were loaded. Castor-oil was given without effect, and then croton

oil with a better result. Very excited and sleepless. Did not seem able to speak at times, and when she got her voice explained there was a piece of glass in her throat. She wanted to swallow buttons to push it down. Her next sensation of the tin box was below the umbilicus, and after another fit it disappeared altogether. Later, speech was very difficult to comprehend after an attack of excitement, the words being so imperfectly formed. Under bromide and general treatment the fits subsided, the mental excitement disappeared, and she was discharged recovered in six months. The last entry in the case-book is as follows: 'Has had no return of epilepsy. Is bright, intelligent, active, and industrious; has no recollection of the events of her illness, only of being in a trance when she was brought to the asylum.'

VIII. Weak-minded Epileptic; Peculiar Running Fits, not always in the same order.

C. M., æt. 19; rather weak-minded. Would burn or hide things. Fits more frequent at night than during the day, usually at the beginning of, or during menstruation, and often of *petit mal* form. Frequently runs, *i.e.*, runs with her eyes fixed straight in front, and with an expression like that of a sleep-walker, blank and visionless. Often runs immediately she recovers from a fit, and sometimes before it. Thus she escaped from a walking-party, not knowing what she was doing nor where she was going, and when she was brought back had a true epileptic seizure. A fourth variation was a run followed by stupor and then recovery, without convulsion at all. She was vindictive rather than impulsive.

IX. Extremely High-strung, Sensation Acute, Intense Irritability, Unprincipled and Vindictive, Hallucinations of Hearing, Delusions of Identity.

M. N., æt. 35. Has been epileptic for at least nine years, probably longer. She is quarrelsome and officious, wants a lot of attention, and thinks herself neglected in the matter of treatment. Complains frequently of a weight on the top of her head. One day in a fit she was conscious of being laid on

the floor, but could not speak. Her mental irritability is worse at menstrual periods. Theoretically she knows right from wrong, but in practice, when her own actions are in question, right is wrong, and *vice versâ*. She is vindictive, schemes for revenge, and so differs from the epileptic who is moved by mere blind impulse. She will watch her chance to hurt people she hates. After a struggle she lies perfectly still as if in a fit, but is quite conscious. She has delusions of identity after fits. The fits are frequently of the *petit mal* type. She is extremely hyperæsthetic. A sudden sound or unexpected voice makes her start violently. One day, disturbed by a noisy patient beside her at dinner, she lifted a plate and broke it over the noisy patient's head. She has slight fits of unconsciousness or vertigo, or blindness for the moment, and seeing things double.

X. Illusions during Menstruation; Irritable, Violent, Childish, and Sulky.

M. K., æt. 26. Temperature on admission 100° after a series of fits and while in a state of maniacal excitement. Convulsions general. Irritable before and after menstruation, a most dangerous epileptic. Has a very pronounced feeling of being swollen during menstruation, and says she is with child. Babyish. Easily misled by others. Aider and abettor of mutiny. Complains of headache and not being able to retain her urine. She is very sulky in her bad moods, and is under the delusion that the house belongs to her, and no one else has a right to be here.

The following case is very instructive because of its multiple character, and the concurrence of *Alcoholic Excess, Syphilis, Epilepsy, Delirium Tremens, and Insanity.*

XI. Has been a hard drinker for many years. Used to have bad headaches after bouts of drinking, but now feels giddiness instead. Five years previous to admission had a true syphilitic chancre, followed by mild secondary symptoms. In less than a year epileptic fits came on, and he was treated at the Western Infirmary, Glasgow, by Dr. Hinshelwood,

who kindly furnished me with notes of the case. The fits came on chiefly at night, were preceded by an aura in the left arm, pain in the neck and behind the ears, occasionally also in the left shoulder. There was loss of memory and speech disturbance.

As long as he was drinking he was not in the least troubled with fits, but as soon as he stopped drinking the fits came on. He was sent to an asylum after this with delirium tremens, but was discharged in a few weeks.

A second attack came on later, when we obtained a further history. He was not a man who went to church except as a matter of form; but when he became epileptic, a religious change came over him, and he enjoyed going to church, and developed the typical religiosity of the epileptic.

The speech was distinctly affected, thick and tremulous. Aphasia of a limited character was noticed after epilepsy supervened, and cephalic sensations of a very distressing character disturbed him, especially at night, as if 'all the bees in the country' were buzzing in his head, and many other strange sensations, often one-sided, but not always so. After fits these annoyances disappeared for a time.

His mental character had two sides: (1) when free from fits, agreeable and pleasant; (2) after fits, suspicious—thought the sphygmograph was fixed on his wrist to cause his unpleasant sensations. Was also suspicious regarding the medicine prescribed. Epileptic paroxysms of excitement and irritability, with hallucinations of sight, were sure to break out at these times. He declared that he saw electricity working under his bed, and then playing over his body.

Under appropriate treatment—anti-syphilitic, combined with enforced total abstinence—the fits became fewer, and he was discharged recovered after three months' residence in the asylum.

CHAPTER XIII.

EVOLUTIONAL AND DISSOLUTIONAL TYPES.

Insanity of puberty in relation to heredity—The influences of heredity in early life—Insanity of puberty and adolescence expressed in different degrees according to their respective epochs—Characters ill formed—Mobile disposition—Cycles of change, different types—Hysterical insanity—Climacteric in the male and female—Larger proportion of females—Different types of mental disease—Senile insanity of three kinds: (1) functional, (2) cases overlapping from functional to organic, (3) senile dementia due to organic brain degeneration—Clinical illustrations under these several heads.

THE insanities occurring at the periods of puberty and adolescence—the insanities of mental evolution—are the result of a bad start in mental life, or untoward circumstances in the nervous or mental development of childhood. Patients of this class are sometimes regarded as belonging to the order of degenerates, and in certainly not a few cases the mental character is so ill formed, the moral and emotional nature so eccentric, and dissolution so premature and complete, that these abortive men and women are truly degenerates. Heredity is an important feature in the production of these types of insanity, and the degree of this influence is manifested according to the age when mental degeneration or insanity appears. An idiot is the most extreme victim of heredity. Later hereditary effects are seen in the first years of childhood, and in the nervous incidents of youth, in retarded or eccentric mental development or lop-sided precocity. The manifestations of heredity in early life seem to affect the motor system more than the sensory, and the nervous system more than the mind. The reason probably is that the motor system is later in its development than the sensory, and that mental evolution being the least advanced,

and so fugitive in its early features, there is little for the insane process to lay hold of or play havoc with. Be that as it may, it is certainly true that motor disorders, motor excitement, and unrest are most in evidence in the morbid development of puberty.

To resume, then: the most potent evidence of heredity is seen during childhood and early life, in idiocy and imbecility, in various motor disorders of the nervous system; and at puberty, in the various disorders of these systems being exaggerated, and combined with more or less mental instability.

Insanity of Puberty.

The insanity of puberty cannot be expected to express itself in the same way as that of more mature age. A boy or girl of thirteen or fourteen is unformed mentally as well as physically. The mind is still in a state of transition, and the mental character is plastic and undergoing new formations. His life is largely a selfish life, with a new egotism appearing as the result of sexual evolution. Sentiment and ambition, without intellectual check or the pruning of experience, are dominant in his life. The insane range of this epoch is still more unsystematized, mobile, variable, and erratic. The mere fact that insanity appears so early—and it is rare at this time—shows lack of stamina and developmental energy which must be the result of inherent weakness.

The period of puberty is in general practice found to be ushered in by nervous crises in a certain proportion of cases which do not become insane. These may take the form of hysteria, chorea, or epilepsy, and there is usually anæmia in attendance also. These nervous departures from normal indicate of themselves hereditary weakness in many cases, and they are links connecting healthy puberty on the one hand with insane puberty on the other. In some cases they are but the prodromata of the insanity of puberty itself.

The mental symptoms are more objective than subjective. These young patients are very much in evidence; but here, as in the insanity of adolescence to be afterwards described, the mobility of the mental character, the uncertainties of its development, are the most striking features. The only thing

that is impossible in the course of the disease is consistent purpose and conduct. The same patient will pass rapidly through phases of maniacal excitement, melancholia with suicidal impulse and stupor, and again break out into mania. In the maniacal state the patient may be very much exalted; his day-dreams are realities; he is acting, to all appearance with the unconsciousness of a true actor, what he is not—a prince, a duke, a general, something heroic; and as he strides about and swaggers it is so amusing and absurd that one wonders whether the boy is consciously 'playing at soldiers' or really believing what he says. The muscular activity is sometimes incessant. It is a chorea of locomotion and bustling officiousness. The boy is full of himself; his egotism is supreme and all-important. He puts on airs, does his best to look and act like a man, and is often bold, rude, and offensive to his elders and superiors. (This, by the way, is an exaggeration of the character of many boys at puberty.) His day-dreams have become facts, and he speculates and undertakes liabilities as if he were a grown man. The case is one of precocious manhood, and one little telegraph-boy was so inflated with his belief in his business capacity that he tried to negotiate for the lease of a large jeweller's establishment which he proposed to run forthwith. The resemblance of the mental and motor symptoms of insanity of puberty, and the stage of maniacal exaltation of general paralysis, is very striking. It is a transient delirium followed by melancholia or stupor.

Another type is more hysterical in character, and is seen especially in girls, who are really more precocious and self-conscious for their age than boys. It is also maniacal, irrepressible, mischievous, playful, and eager of personal notice. It may affect melancholia, and even be attended with suicidal threats. Some such cases talk of suicide with an air of serious purpose, and require to be carefully watched and strictly disciplined. While many hysterical cases talk of suicide without really meaning it, a few are quite serious, and their impulses are probably associated in many cases with masturbation. The hysterical element is sometimes seen in boys as well as girls. Up to this time the sexes are

little removed from each other mentally, and the childish, irrepressible character is still in evidence. As a rule, hysteria affects girls however. One girl kept shouting, 'Oh, my mother! Oh, my sister! Ask the devil!' and then began to sob loudly and hysterically.

Hallucinations of sight are not infrequent; but the moral sense is so deficient, and these patients are sometimes such accomplished liars, that their statements have to be carefully sifted to be sure that the hallucinations are not vain boasting. Delusions of identity are sometimes observed.

Masturbation is frequently a symptom with boys, being in this respect another phase of the evil inheritance of a degenerate nervous system. It is not seen so frequently in girls; but menstruation in their case, acting on a susceptible brain, is a disturbing factor of some gravity. It is usually difficult and irregular; but does not seem painful, while the patient is excited owing to her oblivion of ordinary sensations. When she does complain of it, the symptom is a good one for her mental condition.

Prognosis.

The prognosis is good. I have rarely seen a case that did not recover; but unfortunately relapse is almost certain in the adolescent stage, and then the chances of recovery are not so good. It must be remembered, in considering the prognosis, that a class of cases not far removed from the imbecile class become insane at puberty or at adolescence. Whilst tolerated outside so long as they are amenable to society's rules, when excitement breaks out they are sent to asylums, and often discharged after the excitement has subsided. These are not true recoveries; they have merely returned to the quiescent *status quo* of their weak-minded condition.

Treatment.

This must be determined by the state of the case, but in all good moral discipline is required. Medical treatment can do much, and the indications for treatment are: anæmia (iron and malt extract with cod-liver-oil); motor disorders (arsenic and bromide); want of tone, loss of weight, and

sleeplessness (the open air as much as possible, milk diet, eggs, fish and white meat, and tepid baths gradually altered from day to day to cold baths, with friction and active exercise afterwards).

Insanity of Adolescence.

The period of adolescence is an epoch well advanced from puberty, a stage in which the mind is able to express itself more freely, and to draw from its more mature resources, so as to feed insane feelings and suggestions with extravagant imaginations, and widen the range of insane expression. While still a stage short of maturity, it has its own characteristic features; for it is the age of ripening manhood, pregnant with emotions and love-dreams and lofty aspirations. The education of the school is finished, and the memory is charged with poetic allusions and reminiscences of the traditions and history of the world. If self-control be lost, and excitement should break out, the torrents of language, the dramatic extravagances of conduct that are possible, will give a presentment of the disease more systematized and more prolonged than is seen in the insanity of puberty.

The same defect, want of stamina and staying power, is here noticed also, though in a less degree. The purpose and conduct are more consistent, because of the later and more mature stage of development reached; but the evidences are still uncertain—mobile, erratic, and very different from what are observed in chronic delusional insanity. In the latter you cannot help still respecting the strength of the man's character. In the former you know him to be in many cases a weakling, and this is most apparent in the fact that he relapses again and again before recovery is finally assured, if ever it be.

It ought at this stage to be recognised that three classes come under the category of insanity of adolescence: (*a*) the naturally feeble-minded, who are subject to crises of excitement; (*b*) the masturbators, who are really degenerates; (*c*) the primary idiopathic type, with well-defined cause, and more consistent onset and course, less tendency to relapse,

and more hope of recovery. These three are not sharply defined from each other, but they serve as landmarks.

This disease may be maniacal, melancholic, stuporose, or pass and repass through all three stages. No precise type of mania or melancholia can be described; but certain general features, culled from a large collection of case-book records, will be here arranged and described.

Sentiment and ambition enter largely into the mental equation at this epoch. It is well to remember this when trying to piece together with a view to coherence the ravings, the strange conduct and manner, of the patient. If you consider for a moment that this youth started life full of hope and promise, that to his parents and himself he seemed potentially gifted, and that he has failed, perhaps from too great optimism, from want of judicious pruning, or from being allowed to burn the candle at both ends, you will not be surprised to learn that many adolescents become depressed and break down because they have aimed too high, and failed to grasp anything at all.

The unrealized ideals of the adolescent often lead to despondency, and suicidal acts sometimes result from want of moral courage, or they may result from masturbation. One young fellow of promise, but hampered by the vice of masturbation, lost heart from mental failure to work up to a given standard, and tried to blow himself up with gunpowder. Another too ambitious young fellow—not a masturbator—for a like reason cut his throat.

In its maniacal form, adolescent insanity is often accompanied with delusions of an exalted character. These are often limited in their number, and by no means always so foolish or extravagant as those of the general paralytic, whose exaltation is avaricious. One young fellow regarded himself as next to Christ, and surrounded by angels; another assumed the *rôle* of a Palestine nobleman; while a third described himself as 'John V. Vandeleur,' who had just come to his castle (the asylum), refused the ordinary diet, calling for wine, champagne, and comestibles suited to his rank. While these are conceivable insane aspirations, others are more unintelligible, feebly explained, and foolishly

Plate V.—EPILEPTIC INSANITY. CHRONIC MANIA.



HYSTERO-EPILEPSY.



EPILEPTIC INSANITY
(AMNESIC AND ATAXIC APHASIA).



EPILEPTIC IDIOCY.



CHRONIC MANIA.

To face p. 237.

justified. One young lady regards herself as the daughter of the Prince of Wales, but adds that the matron of an asylum is her mother. She carries herself with great dignity; but is lazy, unwieldy, and gluttonous.

The weakness of intellect which may characterise insanity at this period is evident in absence of the power of adequate expression. Even very simple statements are in some cases loosely and irrelevantly put together. The ambition is manifest; but beyond the consciousness that an ideal is aimed at, there is no evidence of mental grip or reasoning power. There is grasping at an idea without real comprehension of the aim, and how to betoken the result.

Amorous ideas frequently take possession of the mind, and sometimes find expression in poetic effusions—an exaggeration of normal adolescence. Religious emotionalism, a frothy effervescence, may be a passing phase of the mental excitement. Irritability and violence are not uncommon; for this is the age of impulsiveness, and it often arises from opposition which the patient will not brook, and not infrequently from the assertion of parental authority, which the patient, in his assumption of another and more exalted personality, will not submit to. Therefore we find parents assaulted, and their visits declined with haughty mien and contemptuous language.

The excitement of the female adolescent is one of high-flown sentiment, of visionary character fostered by hallucinations of sight; or it may be erotic, impulsive, violent, and even hysterical. While the sexual exaltation in the male shows itself usually in the practice of masturbation in secret places, and occasionally, though more rarely, in amorous advances to the other sex, in the female, erotic vanity and solicitation, even exposure of the person, are very frequent, especially when the symptoms are hysterical in their extravagance.

Hallucinations of sight and hearing are common. One man sees visions, another hears God's voice. The supernatural has a morbid effect on the imagination, and the voice-echoes and visions, which we call hallucinations, are probably due to mental suggestion in not a few cases. One

girl declared that at night in bed she saw a vision of Christ, who told her things that she dared not reveal to anyone. Delusions of identity are not infrequent, and they may be of sexual character.

The moral sense, especially in the hysterical form, is in abeyance. There is no regard for appearances. The patient kicks, spits, breaks furniture and glass, is riotous and devil-may-care, and has often no sense of decency, being wet and dirty in habits, and given to masturbation. Their regard for truth is none of the best, and in their desire to appear super-eminent a few lies are but a trifle.

The melancholic form may persist as a type by itself, but more often it is a stage in the cycle. The keynote may be religious depression, ideas of physical degeneration, a nervous fear of something about to happen, or ideas of suspicion and persecution. One young man—a masturbator—said that he found out from the Bible that he ought not to work, that 'the wages of sin is death,' and that he was suffering from injuries received when the devil was chasing him over the hills. He attempted to break through windows, and tried to dash his head into the fire. He refused food, and had to be fed for a long time.

Another young man was depressed by the thought that immoral conduct had left its mark on his visage, his teeth, etc. A young girl's delusion was that bad blood had been put into her, that her tongue went by machinery. One girl's fear was that her father and mother were going to leave her. When the melancholic state disappears, mania or stupor may take its place. Cataleptic attitudes, trances, automatic movements, rhythmic monotonous noises, may also characterize the insanity of adolescence.

The physical condition is usually one of anæmia, especially so in cases of masturbation and amenorrhœa. The general bodily condition is below par, with pallor of skin, flabbiness of muscle, and a general deficit of secretions. There are exceptions in sthenic cases, with the mental element all-pervading. One such was a young farmer of robust physique, whose mental furor yielded only to depressing doses of antimony, and there are cases where the skin secretions are

altered or in excess. The pupils are usually dilated, the tongue moist and flabby, sometimes furred. Anorexia is common, and, indeed, it may be said that want of tone is usually noticeable in the performance of all the organic functions. The pulse is usually soft and compressible, especially in the states of melancholia and stupor, and at the same time the respiration is shallow. Constipation is not infrequent, but there is no characteristic condition. The urine, so far as I have been able to learn from the researches of others, and especially from the careful estimates of a former assistant colleague, Dr. J. T. Maclachlan, presents no special features unless we lay stress on the frequent presence of oxalates in the depressed and stuporose states associated with masturbation.

Course and Prognosis.

The course of this disease is a devious one, as will be gathered from what has already been said. The ups and downs, the corners turned without the daylight of sanity appearing, are perplexing and disappointing. Nor must we regard recovery as a sure prognosis in so large a proportion as you might suppose from the fact that this is the insanity of youth. The favourable estimate given by Clouston has not been reached in my experience, for the vice of masturbation has debarred recovery in many cases. The recovery rate of my cases is, males 30 per cent., females 33 per cent., and a few of the males were masturbators. Of three classes coming under the category of insanity of adolescence, I find recovery more frequent in the case of naturally feeble-minded people who have had a period of irritability and excitement, and the primary idiopathic type not associated with masturbation at all. The fact that the relapses are fewer and shorter, that the patient is gaining in weight and firmness, is developing in masculine or feminine figure as the case may be, and acquiring a more solid, stable expression, are all good signs. But you will be surprised in many cases to find that the amount of mind restored is not up to the average of the time of life of the patient. You cannot, however, give him a better brain than he had before the attack.

Treatment.

This is a question of general hygiene, personal discipline, and a steady building-up of physique. The patient is often in a state of reduced bodily condition. This may be due to masturbation, being overworked and underfed, or living under insanitary conditions. It may be due to overstudy, in a high-strung, nervous subject of ambitious temperament, with neglect of meals. The history in every case will furnish indications for treatment, and though heredity is the essential factor of all these cases, incidental influences such as have been indicated may have a telling effect, and should receive practical consideration in the treatment of the case.

The patient should have healthy surroundings, abundance of pure air indoors as well as outdoors, for oxygenation is below par. He should have regular outdoor exercise or employment, and live in the open air as much as possible. Thus the muscular system is hardened, the bodily functions are stimulated, and sleep is promoted. The dietary should be chiefly milk, eggs, and farinaceous food; but it is a mistake to exclude butcher's meat absolutely, especially if manual labour is being engaged in, for the physique is being drawn upon, and it has not yet reached its maximum.

The use of sedatives is contra-indicated except in emergencies, and then sulphonal or bromide and chloral are best. Attention should be directed to hæmic treatment, for the state of the blood is very unsatisfactory in most of the cases, both as regards the percentage of hæmoglobin and the percentage of hæmacytes. This is especially noticeable in cases of masturbation and disordered menstruation. It is a well-known fact that there is a relation between gain in weight and improvement in the quality of the blood, and everything possible should be done to increase the weight of the patient without rendering him soft and flabby. Liquid extract of malt is most useful, cod-liver-oil and the hypophosphites are also useful. A combination of quinine, iron, and strychnine, as pointed out by Macphail (*Journal of Mental Science*, vol. xxx.), is the best drug combination. This experience is confirmed by others.

Many indications for bodily treatment will be furnished by different cases, and if the treatment be successful, a reflex advantage accrues to the nervous system and to the mind. Constipation and anæmia may be treated with salts (Epsom) and iron, or pil. Blaud, and Christison's pill. An irritable stomach often yields to bismuth, pepsin, and hydrocyanic acid, and this treatment may be very serviceable where there is sickness and vomiting. Most difficulty is experienced with hysterical subjects, who are sometimes able to eject food with the greatest ease. Blistering over the stomach has a good effect in many of these cases, relieving irritability, and, because of the pain, exercising a good moral effect.

Hysterical Insanity.

This belongs to the symptomatic group; but it is so very frequently associated with the periods of puberty and adolescence that I introduce the subject here. It has intimate relations with masturbation and epilepsy as well, because of the moral perversion which characterizes it. Thus, we have hysteria with masturbation as a leading symptom, and epilepsy with hysterical symptoms and pseudo-seizures.

The gradations of hysterical character, till it reaches the borderland and becomes insane, are endless in number and variety as the differences of human character; but their fundamental character is always the same — egotism with moral ablation, great or small, and conscious, though irrepressible, extravagance of emotion. Hysteria is met with in a simple form in children—hysterical laughter, hysterical tears; but the crisis of sexual evolution is its real starting-point as we are accustomed to regard it from a medical point of view. It is usually confined to the female sex, but the male sex does not escape altogether, as Charcot has shown, and I have seen a few cases of the kind.

The nervous organization connecting the sexual organs and the cerebro-spinal centres is said to be hyperæsthetic in many such cases, if not in all; and there is now no question that emotion and sexual functions are intimately correlated. In many cases disease of the uterus and ovaries, and dis-

orders of menstruation, are exciting causes, and when to this is added masturbation, insanity is often induced. It must be borne in mind, however, that hysterical insanity may be quite innocent of this vice. It may be accepted also as a fact that, beyond a nervous hyperæsthesia, the generative organs may be functionally sound and structurally intact.

It must also be remembered that conditions of general ill health, anæmia, chlorosis, indigestion, piles, constipation, or moral causes of a depressing character, may induce hysterical symptoms in a susceptible patient. Always remember this, that a careful, methodical examination of the physical history as well as the mental, and of the present physical condition, are of the highest and most paramount importance. This rule applies very specially to hysteria, which is apt to be the subject of a hasty diagnosis, and sometimes a rather arbitrary treatment.

A brief summary of the leading features of hysteria will appropriately lead up to the consideration of insanity of this form. (1) There is self-consciousness in an exaggerated degree, to the occlusion of other personal considerations. It is none the less noticeable because of the affectation which tends sometimes to disguise it. (2) There is puerile desire to be noticed and fussed about, and made much of. (3) Frequently, for the reason just stated, there is a simulation of disease or injury, or it may be a story of misfortune more or less exaggerated, or perhaps it is pure fiction, the aim being to attract notice. (4) The following symptoms may be noticed: nervous—sensory or motor, anæsthesiæ, hyperæsthesiæ, paralyses, convulsions and contortions, globus hystericus, polyuria; mental—emotional outbreaks, insane laughter and passion, paroxysms of crying, sexual extravagances, moral depravity. All these latter imply loss of self-respect and self-control.

It is impossible to sharply define hysteria from hysterical insanity. The case of ordinary hysteria is no more insane than the febrile patient who is delirious. We must have the hysterical state deepened, confirmed, persistent, a distinct and not evanescent degradation of moral character, overt acts which necessitate restraint, which manifest a grave loss

of self-control, and an absence of all sense of personal responsibility. For example, we may take the refusal of food for days by hysterical girls—the fasting girls of history were hysterical lunatics—or we may take actual violence to self or others, destructiveness, erotic exhibitions and masturbation, as diagnostic signs. Mere threats, though sometimes they lead to acts, are in nine cases out of ten pure bravado, and if a girl threatens suicide, severe moral discipline and unflinching masterfulness is the best cure for her.

The intellect may be wayward and disordered in its action, but impairment is not usually noticeable. The fault lies more in the emotional and moral sphere. As has been indicated, passionate outbursts and indecent behaviour are frequent, and masturbation is by no means exceptional. You will be surprised to find this in the most unexpected quarters, and more in better-class practice than among the poor. With sexual gratification repressed in a girl with strong sexual cravings, but to all outward appearance at least of self-respecting character, the passion meets with a quasi gratification in another way, and after long pondering and perplexity regarding the significance of certain symptoms in a difficult case, we find that this habit has been secretly indulged in for years.

One such case was that of a young lady of exceptional talent and exquisite musical acquirements, with a strong ill-regulated affection for the opposite sex. She had been much indulged, was self-willed, and did very much what she pleased. She had a disappointment, became insane, and was treated at home. She suffered from piles; had used an enema tube for years, and latterly for an improper purpose. There was an absence of moral rigour in the nursing, because she had not been removed from home. The nurses soon discovered her masturbating habits. She indulged fiercely and openly, she evinced erotic shyness and affectation, and refused food. She broke out into attacks of noisy screaming excitement, would jump suddenly out of bed and commit acts of violence. All the time there could be no doubt in the minds of those who saw her that she was consciously thwarting the authority and well-meant offices

of doctors and nurses, and straining the patience and indulgence of her parents to the utmost. She ultimately recovered.

In this form of insanity impulses of sexual character are not inhibited to any extent, but suicidal and homicidal impulses, though always possible, are more rarely given effect to. One girl escaped from the asylum, had sexual intercourse with an unknown tramp, and when brought back, jumped through a dormitory window and broke her arm. Impulsive attacks are more frequent at or near the menstrual periods. They frequently have sexual delusions, such as that they are *enceinte;* that they have given birth to animals —rats, mice, etc.; that women are men and men women; and many of their ideas and suggestions are most indecent and erotic. They are morally degraded for the time being, and are capable of the most scandalous accusations—figments of the insane imagination.

It is sometimes difficult, when sensation and motion are affected, to distinguish between true hysteria and organic disease, but it must be remembered that they may co-exist. For illustration of this fact we may refer to the case quoted a few years ago in *Brain* by Dr. Hughes Bennett, the case of a young lady of exceptional precocity and moral depravity, who indulged her sexual passions so outrageously that she made indecent overtures to her own brother. She was examined clinically by several London physicians, neurologists of eminent reputation, and she was pronounced a case of functional hysterical character, despite persistent blindness, deafness and paraplegia. She died some months later, and post-mortem examination revealed a large tumour in the medullary substance of the right parietal lobe over the lateral ventricle.

The prognosis is usually good if the case is seen and put under treatment early, but I have found, when complicated with influenza—the hysterical symptoms being consecutive—that the prognosis is not so good.

The treatment must be much on the lines laid down for the treatment of adolescent insanity, the two being essentially of the same natural order in many cases. It is well

always to look for bodily symptoms, to pay strict attention to physical conditions, to have the patient treated under a system of strict moral discipline, and away from home.

Climacteric Insanity.

Is there such a period as the climacteric, and when? If so, is there necessarily a form of insanity that can truly be called climacteric? Such questions have been put, and doubts have been raised regarding the latter, though there can be little question as to the fact of a climacteric epoch in the history of men and women who live into the forties or fifties, or it may be the sixties, of life's milestones. The fact may go unchallenged, albeit the epoch may appear any time during these twenty years.

Some are 'done' men early, though, wrinkled and withered, they cling on to life for years. Others abate not their energy, their wide interests and their usefulness, and retain virility till snow-capped by age. Then only does the climacteric epoch manifest itself in a disposition to relinquish active pursuits, a lessening interest in life's affairs, an inability to keep pace with the times, and a disposition to narrow the range of observation to home and personal affairs. The mental dissolution may not be very apparent, or at all rapid, but it has begun. This period begins earlier in women, and is associated with cessation of menstrual function. In men it may be manifested before fifty, but usually between fifty and sixty-five. About 10 per cent. of female cases admitted to asylums are at the climacteric period, but the proportion of males is much less.

The rise and decline of the sexual function mark two epochs—puberty and the climacteric; but while the former is identified with a rise of self-consciousness, and a distinct stride in mental evolution, the latter is not so strikingly associated with diminished self-consciousness or mental decline, but rather with a slower mental pace and a loss of reactiveness, mental and physical. At the climacteric period the sensory system is morbidly affected, the opposite being the case at puberty, where the motor system is more

involved. The climacteric is subject to strange, inexplicable sensations, many of them organic—to neuralgia, giddiness, headache, aphonia, and other affections. The drink-craving in men and women hitherto temperate may now show itself. Undoubtedly there is a failure of nervous energy and a jarring of sensibility, which may give rise to great pain or distress and weariness of life. The keynote of the altered character now met with may thus be summed up—fear, anxiety, suspicion, loss of moral courage. To this may be added for some cases sexual aversion, out of which arise delusions of infidelity on the part of wife or husband. The lack of moral courage is seen in the man whose spirits fall to zero, who gets depressed, and cannot rally from the shock of bad news of molehill size which he magnifies into a mountain of misfortune. The loss of a few pounds, a bad debt of trifling amount, a mere drop in the ocean, becomes a calamity which he believes will bring his affairs to a state of bankruptcy. From this fear emerges the further suspicion that he may be regarded as fraudulent, and from this he easily entertains the idea that he will be cast into prison.

In another, you may read the signs and watch the development of the attack in the depressing influences of anxiety and domestic trouble, the altered marital relations, sexual aversion, suspicion of husband's fidelity, hallucinations, giving suggestions of persecution, and so on throughout the course of chronic progressive delusional insanity.

The maniacal form is often the sequel of a low state of physical health, whether from cardiac or other organic disease, malignant disease, nervous inertia, or hepatico-intestinal disorder. Sometimes it is religious in its early manifestations, or the excitement may be passionate and violent.

The most prevalent form of insanity at this time, as might be expected where sensation is so frequently involved, is the melancholic. It has been said that the mental depression, though very general in this disease, is rarely intense; but the intensity and the suicidal propensity are really more common than some authorities suppose. This, in my experience, is obvious in male cases; but it is probable that

alcoholic excess has something to do with it in a few of the cases.

The forms assumed by climacteric insanity in male and female cases are different in their relative frequency. Melancholia is much the more frequent in men, and the hypochondriacal phase is frequent and characteristic in nearly half of the melancholic cases. Chronic progressive insanity and mania are each in evidence to the extent of about 15 per cent. of all the cases.

In the female, melancholia, mania, and chronic progressive insanity appear in about equal proportions. Sometimes is observed, especially in females, a rebound from melancholia to mania with exaltation. A few cases of insanity with delusions of persecution by unseen agency, or ascribed to overt actions, are met with from time to time; but these may be fugitive, intellectually weak, due to vague fears, and easily recovered from. Several clinical illustrations will follow, and so unnecessary repetition is here avoided.

It is rare to find organic brain disease associated with climacteric insanity; but cases of hemiplegia, or other forms of paralysis, do become manifest in the course of the disease.

As already indicated, the bodily health is impaired, various nervous phenomena may make their appearance, and there is frequently an anæmic condition, which may be very persistent. Organic sensations—*uterine*, giving rise to delusions of pregnancy or otherwise; *gastro-intestinal*, giving rise to delusions of alimentary occlusion and constipation, are characteristic.

Prognosis is fairly good if in the male the form is melancholia, and in the female either melancholia or mania. The fact that chronic progressive insanity is so frequent a form in the female diminishes *pro tanto* the total percentage of curable cases. It may safely be estimated that 40 per cent. of all cases recover, and in my experience the male rate has been higher than the female rate. If there be grave impairment of memory, or signs, however slight, of organic brain affection, the prognosis is not so good.

Treatment must be with a view to building up the physical

health, increasing weight, improving the condition of the blood, and promoting sleep. Occupation, especially in melancholic cases, is all-important. Stimulants, especially stout, may be given freely if there is no craving. As far as possible, the spent force must be restored, and a liberal dietary, including the nitrogenous element, must be prescribed in a manner suitable to each case. As a blood tonic arsenic answers well, with or without iron. Syrup of hypophosphites may also be prescribed with advantage in many cases. Attention to the bowels, which are frequently costive, to the state of digestion, and other bodily functions, is all-important, and must not be overlooked.

Senile Insanity.

The preponderance of females over males at the climacteric, becomes reversed in old age. It has been said that a man's life is as the life of his arteries, and the most significant sign of advancing years is atheroma. This condition may exist however, for years without any real evidence of senility; but when you have also to notice the impaired state of the blood and circulation, to the evidences of somatic failure generally, the shrinkage of tissues and organs, and the slowing of the physiological pace, approaching senility is undoubted.

As regards the mental question, there are still two opinions. Many regard the mental shrinkage or involution as normal decay, and would exclude from the category of insanity not a few cases that are certified insane, while others regard such cases as a subgroup under the name of senile dementia. We must frankly admit that many old men are no more insane than we are; and if their memories have failed, and their sympathies have dried up in many directions where formerly they were poured out, this is but the natural outcome of age, and does not portray an altered and insane personality.

The nomenclature of senile insanity is not uniform throughout our text-books. Savage treats only of senile melancholia; Spitzka of senile dementia, regarding all senile forms as true cases of dementia; and Clouston of mania, melancholia, and dementia. The subdivision of Fürstner is probably nearest

the truth: (1) functional psychoses; (2) organic psychoses (organic dementia); (3) a group midway between the two.

The symptoms may be maniacal in appearance; but when you interpret evidence carefully, it will often be found that so-called mania is the delirium of a demented mind and an atrophied brain. In like manner, many cases labelled senile melancholia are mere outward symbols without correlative mental pain, whining children of old age without any conscious sense of even organic discomfort.

Following the arrangement suggested by Fürstner, we reckon up senile cases as follows: (1) functional, cases of undoubted mania and melancholia without evidence of organic disease; (2) cases which may be functional, but where organic disease may be gravely suspected—these are usually of the demented class; (3) organic dementia, the result of hæmorrhage, thrombosis, softening, atrophy.

The mental symptoms are of two kinds—those which are frequently met with, and those which are not. Of the former, nocturnal disturbance, roaming about, noisiness, excitement, with fits of somnolence during the day, loss of memory of recent events, confusion, absent-mindedness, affections of speech—*amnesic* or *aphemic*, probably both—emotional weakness, giving rise to fits of crying or irritability. If there be delirium, it is the delirium of old-world experiences, the phantasm of the past, the old bygone days lived over again. One aged creature persists in the idea that her husband, who died twenty years ago, is still alive and with her; another speaks of her father as if he were still alive, and she, his daughter, had just come home from school. The earlier the reminiscence *redivivus*, the deeper the ablation of the higher centres.

The symptoms not so general are those of the functional form, which is less frequent than the organic or incipient organic, and here you have maniacal or melancholic symptoms with a more limited range of morbid intellection than in earlier life. In the maniacal form sexual desire may be revived, and give rise to atrocious indecencies which manifest, not only weak self-control, but, what is worse, a loss of

moral sensibility. Such cases may have, between their sexual delinquencies, periods of apparent sanity, but they may break out again at any time. They are apt to contract marriages, December with June, and owing to their mental and moral weakness are a fit prey for the impecunious. In some cases suspicion and delusions manifest a different type from the preceding, vague delusions often imperfectly formed and childishly expressed—delusions of unseen agency, electric communications fostered by hallucinations. Sometimes kleptomania is a symptom, and not infrequently the senile maniac may be very quarrelsome and violent.

Senile melancholia is more frequent than mania. It is the variety of insanity in old age best known and most fully described. The fundamental condition is dread, anxiety, a vague fear of something, the patient knows not what. It may be a fear that her money will be stolen, that her furniture will be taken away to pay the rent, that the house will be burned—but why, or by whom, she has no idea. There may be suicidal promptings, but they are feeble in initiative, and if they lead to attempts these also are feeble. While this is the general rule, suicides do occur in old age, sometimes because of mere depression of bodily stamina, resulting in a weariness of life, and sometimes from other causes, such as the loss of wife or husband, life thereafter becoming insupportable. In senile melancholia the patient may be very restless and noisy, especially at night; the lamentation is often very loud, and there is a childish persistency and craving for sympathy. There are inconsistencies, however, which are very striking, such as ceasing at meals and then crying loudly again till the next meal. Here the melancholia is less real, and there is an undoubted element of dementia in the case.

The physical condition has been described, but in some instances there are in addition attacks, in the course of the disease, of paralysis in a variety of forms—apoplexy, loss of sight and hearing, and increasing muscular weakness. Diarrhœa is not infrequent, and digestion and assimilation are much impaired. The prevalence of diarrhœa again suggests a resemblance to childhood. It is reflex in its

origin, post-mortem examinations rarely giving any explanation of it. It is not usual in normal senility.

The Ætiology of the disease is less heredity than physical breakdown and mental causes. Ill-health may have much to do with it, and causes which age a man prematurely.

Prognosis.—Sometimes recovery occurs in the maniacal form, and, according to Clouston, the percentage in melancholic cases is 30 per cent. This is a higher rate than one would expect, and it is doubtful whether in many of the cases there has been more than a relief of the acute symptoms. That genuine recoveries are possible where there is no organic degeneration is, of course, what might be expected in a certain moderate percentage of the cases.

Treatment is summed up almost in one word—good care and nursing. The enfeebled powers of digestion and assimilation must be aided by what is digestible—the plainest, simplest diet, warmth and stimulants. These old men and women, by reason of their nocturnal restlessness, are very trying, and need to be guarded like children, for they are liable to fall and sustain injuries that may hasten their end. Ecchymoses are very easily induced, and the bones are easily broken.

Clinical Illustrations.

Insanity of Puberty.

I. M. C., female, æt. 15, is very illustrative of features rarely combined, but all characteristic of the pathology of puberty. First there is pronounced heredity. Father died of spinal disease, chorea in one aunt (paternal), and insanity in two maternal relatives (uncle and aunt). The history is that of a bright child, smart at school, with no adverse circumstances of teething, no serious ailments till the age of nine, when she suffered from erysipelas of the face. When she recovered she proved a backward child at school, and suffered from headaches. A year ago (æt. 14) had an attack of rheumatic fever. Seven weeks ago had a second attack, not so acute, but as symptoms were subsiding three weeks ago chorea supervened, with

mental excitement a day or two later. Would begin to cry, and could not be pacified for hours. She appeared to her friends to be 'making faces in the looking-glass.' She had no laughing fits, but frequently broke out into singing fits. A week later hallucinations of sight appeared. She imagined she saw a dog in bed, and had delusions, such as that her father (dead for years) was at the door and could not gain admittance, and that the doctor whom she had known for years was her uncle. Menstruation was established eight months before, but has now disappeared for at least four months.

On admission she was said to have threatened suicide, a mere impulsive threat on hearing that she was to be sent to the asylum. She was described as a noisy, frolicsome tomboy, and her mental states varied between exaltation and depression which were purely emotional and fleeting. The speech was slurred and interrupted. She would begin a sentence, and fail to finish it; then after a pause the words would flow freely. She was still choreic, especially in left foot and hand. The breathing was more diaphragmatic than costal. The various sensations were acute, especially sensation to pain. The reflexes were well marked, especially the abdominal and axillary.

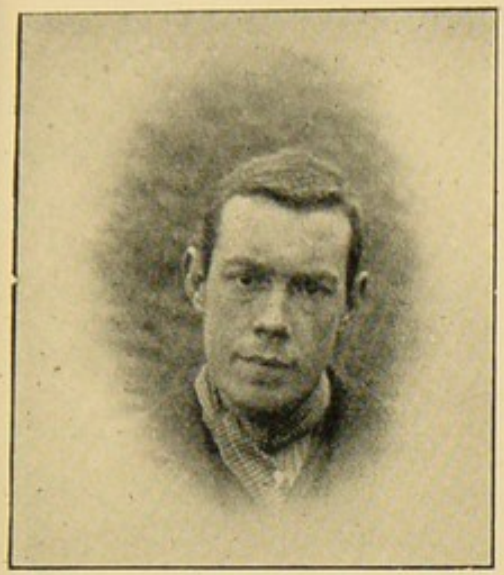
Her expression was bright and animated, she was on the move all the time, and did not sleep night nor day for some days. Her temperature was subnormal, but on the fifth day it rose with rheumatic symptoms, and the mental and choreic symptoms disappeared. When the temperature receded, mild chorea returned, and the mental symptoms with it. She had hallucinations of sight and hearing; fancied she heard her mother speaking, and that she saw two women in her room.

After a few weeks the chorea disappeared, she recovered her former health, and the mind was restored.

Insanity of Puberty—Summaries.

II. David G., æt. 14; says all about him are evil spirits, but he is 'the just God.' Dancing about the floor all night, would not keep in bed; mischievous, and biting the other patients. He has a skulking expression and manner, and is

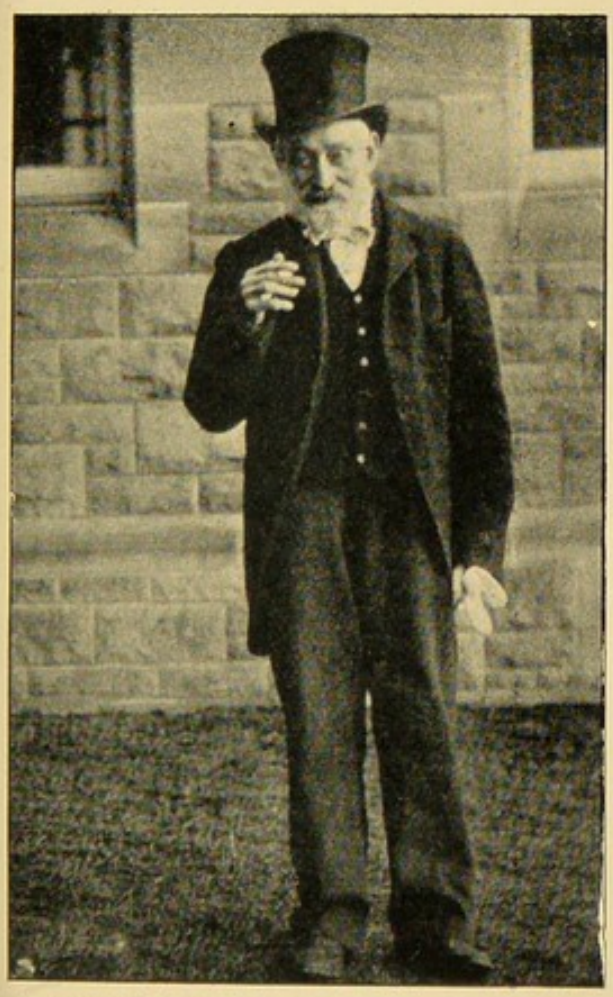
Plate VI.—EVOLUTIONAL AND DISSOLUTIONAL TYPES.



ADOLESCENCE (MELANCHOLIA).



ADOLESCENCE (HYSTERICAL INSANITY).



SENILE MANIA WITH GREAT VANITY AND EXALTATION.



SENILE DEMENTIA.

To face p. 272.

an unmitigated liar. Masturbator. Transferred to another asylum.

III. William G., æt. 14; a liar; said he walked six miles in ten minutes; said he saw the devil; chest narrow, body emaciated; wanted to fight any two men; swore furiously. Passed into stupor, and out of it into a state of depression, fearing he would be killed for his bad behaviour in the maniacal attack. Bowels were confined, but after being relieved, he fed well and brightened up, though complaining of frontal headache. A second maniacal attack came on, then stupor, in which his habits became wet and dirty; then apparent melancholia and religious depression, more affected than real. He passed through a third cycle, being cataleptic in the stupor stage, and then recovered.

Insanity of Adolescence—Summaries.

IV. Robert A., æt. 24; strong, well built; sthenic case. Exaltation, great excitement, rambling, uttering by the way remarks to everybody—to one person, 'Are you humble?' to another, 'I'll see the Queen and take the big bugs down a bit.' Delusions of identity; destructive, violent, and threw everything about in wild confusion. Refused food; said it was poisoned. Constipation. Vin. antimonialis given with good effect. Recovered.

V. Robert A., æt. 24; had a very exalted opinion of himself; would promenade the ward with the air of *un grand seigneur;* thought he was a second Joseph, and was sure that something would transpire to raise him to prominence. Fell violently in love with one of the nurses. Very thin and weakly. His excitement, which came in declamatory paroxysms, was very exhausting. Heart disease. Death.

VI. Peter G., æt. 23; excited, incoherent, supercilious, disdainful, suspicious; said there was a tall man following him. Talked, laughed, and got angry by turns. Had exalted ideas of his musical talents, and when questioned on this point answered very haughtily in a manner that made it perfectly clear he knew others did not appraise his talent so highly. He had a period of abstraction and stupor and finally recovered.

VII. Richard B., æt. 22; reduced condition; feeble musculation; flabby, pale, and cold; circulation very feeble; tendency to chilblains and cyanosis; masturbator; quiet, curious expression; twirled his moustache in a vain, silly manner; supercilious. Refused food; said he was getting too great a glutton; pensive, pathetic, sorrowful expression of eyes. Later became impulsive, and then passed into stupor with eyes sunken and glazed, showing no sign of pupillary reaction nor movement of the eyeballs. Was evidently enthralled by delusions. Out of this state he awoke, sending forth a piteous wail, and next moment would strike out. Later he was confined to bed, with flexion of thighs on abdomen and legs on thighs; very emaciated; ulceration of skin over knees with black slough. Death.

VIII. Henry A., æt. 24, is a more exceptional case, but nevertheless a type also. He lived too much a woman's life at home with his mother; could cook or do housework like herself. On admission his condition was one of exaltation, with an appearance of reason and shrewdness not usual in the adolescent. He said he was inspired by God to make statements that God shall arise and terribly shake the earth. Exalted ideas of his intellectual powers. Exalted religious emotions; described himself as 'a man of sorrows and acquainted with grief.' Childish, petulant, suspicious. Sometimes thought he was next to Christ, but when brought to book for this statement he extricated himself by saying it was a mere exaggeration. Most useful in the hospital; just like a woman. Good face, refined, intellectual, but nervous instability of expression, especially convulsive twitchings round the eyes. Facile sometimes, and easily managed; but he was also a strange compound of reason and suspicion. Refused to answer certain questions, for he was sure that by some quibble I wanted to put him in a corner. Thought that shaving his head for alopecia was submitting him to an indignity. Hereditary insanity strongly marked. Got strong and robust and recovered.

IX. Isabella R., æt. 24—marked hereditary history. Imagined herself the mother of her sister's child, and threatened her sister's life; memory weak; abstraction.

Actions sudden when doing anything; no self-control. Attacked another patient under the delusion that she was her sister. Dysmenorrhœa with deficient flow; headache before menstruation, very irritable and impulsive then and during the flow. Giddiness and vertical headache afterwards; anæmia. This patient recovered partially and then relapsed.

X. Annie M., æt. 20. Threatened to drown and poison herself; admitted it; stupid and dull; amenorrhœa; brightened up; recovered.

XI. Nellie B., æt. 18. Been insane at puberty and recovered. Stubborn; melancholic; fought obstinately when attempts were made to rouse her; cataleptic; gleams of brightness and energy for two days, then would relapse; gleams of longer duration; sews. Very silly; laughs foolishly; wrote irrelevant amorous letter; hallucinations of sight; saw her brother in mid-air. Later excited, impulsive, vain; liked to be taken notice of; erotic in behaviour. Mental see-saw; ebb and flow; affected by menstrual periods. Recovery.

XII. Mary L., æt. 24. This case was for a long time seemingly hopeless. The recovery has been most satisfactory, and she has been well for twelve years. Extracts from case-book: 'Hilarious; dances and sings. Excitement comes in gusts. The ward is 'the King's room'; throws her clothes about; refuses food; amenorrhœa for several months; then menstruation irregular; later, regular. Gets into stupid moods, with lowered eyebrows and fixed stare; expression vacant; costive. Is passing into stupor after a full month's lucidity. Inflammation of knee and leg; suppuration; health afterwards much improved. Treated with defibrinated blood. Recovery.

XIII. Jeannie Y., æt. 20. Saw a vision of angels, and a voice said, 'Trust in Nellie.' Says the room is a steamboat, and that she is on her way abroad. Later thinks she is in the convalescent home, which is nearer the mark, for she is now convalescent. Had delusions of identity. Suffered from amenorrhœa. Ferruginous treatment. Recovery.

Climacteric Insanity—Summaries.

XIV. Mrs. A. B., æt. 44—*melancholia.* This patient's attack was said to be due to persistent dyspepsia, constipation and hæmorrhoids, but these were aggravated by the 'time of life.' She attempted suicide by cutting her throat with a razor. She was in a state of melancholia which she could not explain. Her physical condition on admission was that of exhaustion; the suicidal wound was not deep, but the digestive tract was in a very unsatisfactory state. The nostrils, lips, mouth, and fauces were raw and tender, and the gastric irritation so great that rectal injections of partly-digested food, peptones in milk, and stimulants, had to be freely given. The throat was swabbed with glycerine of borax. She slept very little, but her distressing wakefulness was relieved by warm baths. Her weight on admission was 92 pounds. At the end of a year she had gained 30 pounds in weight, and her mental recovery was complete.

XV. Mrs. C. B., æt. 47—*melancholia.* Taciturn, slow to converse; said that God had forsaken her, that she was quite miserable, and wanted to die. She bemoaned the paralysis of her will, and her inability to work, although there was so much need for her to do so. She declared that she was so filthy that the water got thick with dirt when she put her hands in it; that everything in the house—clothing, napery, furniture, etc.—was filthy. After a time she engaged in active employment and recovered.

XVI. Mrs. C. S., æt. 53—*melancholia.* This patient was much depressed, and broke out from time to time in frenzies of melancholic excitement; declared that her children were taken from her, that she was lost, and her relatives were conspiring against her. She was more depressed in the afternoon and evening. Health below par; constipation; appetite poor. She believed women were men, and she suffered from hallucinations. Treatment by bromide of potassium and tr. cannabis indica was very successful. Recovery.

XVII. Mrs. M. G., æt. 46—*melancholia.* Noises in the head, very excited and violent, and quite beside herself.

Declares she is lost, and that she has killed her father and mother, and also her own boy. Recovered.

XVIII. John M., æt. 57—*melancholia*. Nervous, anxious, troubled expression; atheroma, emphysema; abdomen extremely retracted; a case of melancholia which began with mild climacteric depression intensified by neglect and starvation. Bromide and cannabis, stimulants, and liberal dietary. Recovery.

XIX. Mrs. M. C., æt. 55—*mania*. Violent; raves incessantly and incoherently. Says she sees the Virgin Mary and hopes the devil will take her husband; that the marrow is coming out of her bones with the cold; hyper-pyrexia and flying pains through the body; looks weak; lips dry, tongue foul, stools offensive, complexion sallow; stimulants, salicylate of soda. Recovery.

XX. Mrs. R. A., æt. 47—*mania*. Greatly excited; said she was a general, and gained Lord Raglan's victories. Pulse 108; no rise of temperature, but gastro-hepatic disorder; tongue foul, costive, stools greenish-brown; refuses food; homicidal (got nurse down on the floor), destructive; says she is the Queen; sleepless; pin-head pupils. Slept after vin. antimonialis. Bromide and cannabis did good; lost weight, but recovered.

XXI. Mrs. K., æt. 47—*alternating insanity*, melancholia followed by mania. *First attack:* Threatened to commit suicide; refused to speak; sleepless; walked the floor during the night. Reflected morbidly on her conduct towards her family; very thin; exophthalmic goitre. Had religious scruples and misgivings, and allowed herself to get into a weak and wretched state of health. Under tonic treatment with extra diet she put on flesh and regained her former cheerfulness. Discharged recovered. *Second attack:* Six months later became maniacal; could not rest night nor day; talked of getting married to a millionaire; threatened to cut her son's head off with a large knife; broke the windows of the house; threw out the furniture; bought unnecessary articles and got deeply into debt. She was quarrelsome and officious, and had grandiose delusions of position, wealth, and possessions. Bodily condition much reduced. She is now

quiet and rather depressed, and will probably become melancholic again.

XXII. Mrs. H. C., æt. 42—*chronic progressive delusional insanity*. Has the delusion that darts are thrown at her, which enter her brain and carry the mind of the person who throws them into her mind. Expression curious and careworn; aortic disease. Later she thinks she is a person of great importance, and can command legions of soldiers. Hallucinations of hearing for a long time.

XXIII. Mrs. N. H., æt. 55—*chronic progressive delusional insanity*. Insane five years; says her husband and friends wish to poison her, and imagines he (her husband) chloroformed her while others ravished her (has uterine disease). Filled all the crevices in the house to prevent the neighbours suffocating her with sulphur. Hears her husband conversing with strange women at night (hallucination); hypochondriacal. Transferred to another asylum.

XXIV. John H., æt. 60—*hypochondriacal melancholia*. Depressed and suicidal. Has for a long time complained of pain over vertex, and sleeplessness. Is very self-centred and hypochondriacal. Is continually thinking about his health. Thinks he has no stomach, that his bowels are blocked up, and refuses food. Constipated. Tonic and laxative treatment. Recovered.

XXV. Mrs. M. C. R., æt. 65—*senile melancholia*. Was of anxious, sensitive character; would brood over matters and keep thoughts to herself. Got the idea that her throat was choked up and she could not swallow, but this idea disappeared as soon as she became excited. Was in a state of insane terror on admission, under the idea that the house was on fire. She had delusions that (1) her head was diminished in size by fumes of sulphur, and (2) the old delusion that her throat was closed returned. The melancholia degenerated into a childish wail that went on day and night, except at meals, which she devoured ravenously, till she suffered from lung disease, of which she died.

XXVI. Mrs. B. H., æt. 67—*senile melancholia*. Says that the devil has got possession of her, and is urging her to drown herself. Talks in a very depressed tone to the effect

that there is no escape for her, and that she will drown herself. Can't sit quiet for more than a few minutes at a time; is restless night and day. Memory good for her age; fairly coherent. Says God has forgotten her. She is self-reproachful. Health improved. Recovered.

Senile Insanity—Summaries.

XXVII. W. B., æt. 74—*senile mania.* Alcohol the exciting cause; tall, well-built old man; very sleepless, excited, oblivious, delirious; does not know where he is, but talks incoherently of the past. Very stupid and confused. Delirium passed off. Recovered.

XXVIII. Mrs. M., æt. 79—*senile mania.* Was in a transient state of excitement, and could not be brought to reason. Said her sons were burned, and next moment that parts of their bodies were blown away. Was very excited and could not rest, but recovered as from a dream.

XXIX. Mrs. McG., æt. 64—*senile dementia.* Has no idea where she is; says her son-in-law will burn her; gives her age as eighty, then says she is seventy; aortic disease; bowels opened—20 ounces hard, dark, stony fæces; very bent, but straighter after bowels relieved; several mild shocks and convulsive seizures; retention of urine. Death.

CHAPTER XIV.

INEBRIETY—ALCOHOLIC INSANITY—OTHER FORMS OF INEBRIETY—SYPHILITIC INSANITY.

Definition of inebriety — The agent may be alcohol, opium, or other narcotic—Alcohol as a cause of insanity—The plea of intoxication in exculpation of crime—The action of alcohol in respect to nervous and mental symptoms widely differentiated — Transitory alcoholic mania—Delirium tremens—Acute alcoholic mania—Dipsomania—Chronic mania—Alcoholic dementia — Opium and other medicinal stimulants—Their nervous and mental effects—Syphilitic insanity a conventional rather than a scientific term — Varieties: primary; secondary; delusional, with or without brain lesion; organic — Clinical illustrations.

'Is the inebriate but a fool? Is he but a wanton and wicked sinner? . . . Emphatically does science answer No. Men and women of the highest culture, the purest life, the most exalted aims, have become reckless drunkards. . . . The warmest hearts, the kindest souls, the most unselfish spirits, have been transformed under the siren influence of "the tricksy spirit" into the coldest, most unkind, and most selfish votaries at the shrine of Bacchus.'—Dr. Norman Kerr.

The popular meaning of 'inebriety' is drunkenness from alcoholic excess, and there is ancient warrant for this conception of the term, albeit its derivation from *inebrio*, is drunkenness, without any qualification. The agent may be alcohol, opium, ether, chloral, chloroform, cocaine, or any other intoxicant having a delirious or narcotic effect on the nervous system.

The principal and most common agent is alcohol, and the study of its effects has given rise to diverse opinions as to which are products of disease, and which products of physio-

logical exaltation and its reactions. With the physiology of ordinary alcoholic drunkenness this chapter has no concern; but it is important to observe that the *amount* of alcohol does not necessarily determine the mental result, but the individual himself, his nervous organization and attendant circumstances must be taken into account.

Alcohol as a cause of insanity has been variously estimated, and immoderate statements have frequently been indulged in, so that a clear perception of the actual facts of the case has been obscured. According to Clouston, 15 to 20 per cent. of all cases of insanity are more or less due to alcoholic excess. This reservation *more or less*, or, to use Clouston's phrase, *in whole or part*, does not give data of accurate scientific value, and read in conjunction with the following remark from Savage, the uncertainty about the matter is still more evident. The latter observes: 'In my experience one of the most common tendencies of early lunacy is to seek for sleep, relief from pain, excitement, or alleviation of trouble, in drink. In such cases the nervous disturbance was already fairly started before the drink was taken to excess.' It may be added that if the drink had been taken as a narcotic medicine early, in order to procure sleep, the attack of insanity might have been averted.

That drink, and especially bad drink, is a potent influence, and a cause of insanity, cannot be denied; but a weak, nervous, susceptible constitution is often the medium of its malign operations, and the individual as well as the agent must be closely examined. It is sometimes difficult to distinguish between the physiological and pathological inebriate, and such distinction is urgently required in not a few of the cases committed for trial for civil and criminal offences when under the influence of alcohol. Notwithstanding that judicial decisions are often more lenient now than formerly, it is doubtful if Dr. Kerr's argument would be sustained, viz., 'that a plea of intoxication, unless the drinking has been purposely indulged in to steady the nerves for the commission of a crime, should be admissible in defence.'

The drink craving is a result of disease in many cases.

There can be no question of that. The disease may originally be somatic disease acting secondarily on and depressing the nervous system. It may instead be due to nervous depression, the result of exhausting demands on the bodily and nervous energies, to neuralgia, injuries, domestic and other worries and anxieties, business failure, etc. As a convivial habit it is less excusable; and here is the *fons et origo* of many cases of alcoholic degeneration, especially when the indulgence is attended with great mental excitement, which is frequently the case in the tap-room, and in company elsewhere.

Alcohol during business hours, if work is to be done, is bad. Mental confusion is the result; irritation, because of mental failure to accomplish what can only be done by a clear head, aggravates the sense of brain discomfort, and often causes flushing of the face and headache. If alcohol must be indulged in, whether for sleep, organic comfort, or the sense of mental well-being, it is best left alone till the evening, when work is done, the day's excitement over, and mental exercise is no longer necessary or desirable.

The action of alcohol, and its effects in respect to nervous and mental symptoms, are so differentiated, and so apparently quixotic, that we must take a general view and widen the classification of this form of insanity without being arbitrary. As already indicated, the individual himself is the determining factor as to the mental and nervous result of his libations, and the latter operate pathologically when nerve resistance is vanquished.

The implication of the nervous system may be the only symptom, or mental symptoms may predominate to the almost entire exclusion of nervous symptoms. The motor system may alone be affected, general tremor being visible throughout. There may be instead of this involuntary startings, with or without hallucinations. Epileptic convulsions may occur after prolonged potations. Dagonet and others consider these convulsions to have a more deteriorating effect on the mental condition than the seizures of ordinary epilepsy. Alexander Robertson disputes the accuracy of this statement, at least in our country, where the alcohol imbibed is regarded as less poisonous than absinthe (*vide International*

Journal of Medical Science, December, 1892). Peripheral neuritis, motor as well as sensory, may be in evidence. Pupil symptoms, especially inequalities, may occur, and often persist after recovery. In one case of acute insanity under my care, with lucid intervals, there is permanent inequality of the pupils. The onset was due to the first and last bout of alcoholic excess—a very trifling one as hardened sinners in this respect would judge it; but the patient's father has been a chronic soaker for years, a man of great natural ability, and a man who has never yet been insane.

The sensory symptoms are more limited. It is true that multiple neuritis may affect such patients, but the special senses, sight and hearing, are most liable to be affected. As showing that here the hallucination or illusion is often sensory rather than of mental origin, it is interesting to observe—and this is clearly brought out by Robertson—that in many cases the hallucination is not full-blown at once. At first shadowy and vague—a cloud, coloured stars, etc.—it soon takes on a more definite and complex form. In acute alcoholic insanity hallucinations of sight usually precede those of hearing, but in more chronic states the latter holds the field usually alone, and the hallucinations may be one-sided.

The condition of the skin glands, sudoriferous and sebaceous, is also interesting. Except in highly-fevered states there is more or less perspiration, but it is not necessarily continuous. The oleaginous skin of alcoholism has frequently been noticed, but it is rather a symptom of the chronic form.

The mental response to alcoholic libations, whether positive or negative, is as varied as the individual himself, and merely by way of landmarks the following distinctions are drawn: (1) Transitory alcoholic mania, (2) delirium tremens, (3) acute alcoholic mania, (4) chronic mania, (5) alcoholic dementia.

Transitory alcoholic mania, sometimes called *mania a potu* (mania from drink), or, better still, *delirium ebriosum*, is in popular language the state described as 'mad drunk.' It may only last a couple of hours, or a day at most, and is

most sudden in its onset. The drink, to quote another popular phrase also quoted by Savage, 'flies to the head'; the subject is very susceptible; very little alcohol will do, and what little there is imbibed has a selective affinity for brain tissue, producing, as a rule, sudden mental irritation, for such persons are often exceedingly violent. I have known a young fellow of very excitable disposition appear at a social function at 8 p.m., drink two glasses of whisky, and be in a police cell at 10 p.m. Next morning he wakened up from a sound sleep, and had no recollection of the row of the preceding night, but was perfectly sane. There is something suggestive of post-epileptic furor in transitory alcoholic mania. The oblivious condition, the riotous, aggressive violence, the delirious abandon, give an *ensemble* very suggestive of epilepsy.

Delirium tremens has four cardinal symptoms: (1) motor disorder; (2) hallucinations, especially of sight; (3) insane fear and terror; (4) acute delirium. Certain men are always affected in this way when they take drink to excess, and Robertson has had experience of cases with as many as twelve to twenty attacks, all of this form. In many cases the drink habit is suspended for several days before the onset of an attack; in some there seems to be an aversion to it at the very last moment. The state of the bodily health has much to do with it also, for such men are often in a reduced physical condition and empty of food for days. This, along with want of sleep, makes them a more easy prey to the poisoning which necessarily results, especially if the kidneys and bowels are inactive.

The patient is often in a crouching attitude, his eyes staring, his expression one of fear or terror. He evidently sees things invisible to others. Ask him what he sees and he will tell you, pointing to them: ferrets, rats, serpents, dogs, cats, or any other animals; it may be that he is fleeing from devils or ghosts, or the hallucinations may be of a less terrifying character. The state of terror is often aggravated, and the hallucinations more vivid when the patient is put in a dark room alone, especially at night.

It will be noticed there is more or less tremor; it may

be merely facial or lingual, but more frequently the general motor system, especially the hands and feet, show the trembling movements which are so characteristic in many cases. Some exhibit tremor after all other symptoms have disappeared.

The patient is more or less oblivious of his position. I have known a man develop an attack of delirium tremens on board ship, and in the height of it lift a portmanteau from his cabin (on deck) and try to get overboard, not realizing the treacherous footing to which he would consign himself, or the fact that we were at sea, not on land. He had got the idea of a train and a railway station into his head.

The excitement, marked diminution of consciousness, hallucinations of vision, with fear and terror, rend the man asunder as it were, resulting in a state of frenzy in some cases, but in all, what we call delirium, a man beside himself, without power to reason or reflect, the sport of his insane hallucinations.

The crouching attitude may change to a movement of flight, a struggle to be free and escape, and a fatal issue may be the result. Delusions of identity are not uncommon, both of time and place. One poor fellow travelled from the North of Scotland, and had no recollection of his journey to Glasgow. Having arrived there, he identified everyone he met as someone he had known before, and called the asylum Dunrobin Castle, being still under the impression he had never left home.

The excitement is often violent, frequently paroxysmal and impulsive, the result of a fresh accession of hallucinations. Sleeplessness is naturally a symptom as long as the excitement lasts, and suicidal attempts are common either from fear in the acute stage, or from the acute depression which follows as a stage of reaction. One must be very careful not to trust such a patient too soon, even though he may seem 'to be clothed and in his right mind,' for there is an ebb and flow of depression for a few days at least in many cases.

The bodily health is often below par from neglect, want of food, visceral disorder the result of indulgence, and ex-

posure. Not a few cases die of pneumonia, many take long to recover from gastro-hepatic disorder, and a large number suffer from constipation. The temperature is above normal, and the pulse is rapid.

Acute Alcoholic Mania.—This form is usually seen in cases naturally predisposed to insanity, it is less delirious, and less oblivious in its character. It may be seen in those likely to be attacked during adolescence, the climacteric or senile stage of life, or at any time when unfavourable conditions of bodily health prevail.

The symptoms are graded in all degrees, from an attack resembling delirium tremens to an attack resembling typical acute mania. Tremor may be present to some extent, but it usually disappears early, the maniacal symptoms still persisting. Hallucinations of hearing are more common than those of sight, fear is less accentuated, and the excitement has a more evident relation to things that are. Delusions of suspicion and persecution are often evident, and the natural emotions may be perverted. The patient's consciousness of himself, his surroundings, and the lapse of time may be quite intact. The mania may be characterized by good humour, restlessness, and fun, or by sullen, angry speech and outbreaks.

The physical condition is generally fairly good, and this is evidence that the brain is itself unstable, requiring no pathogenic aid from the bodily organs. Cases, however, do frequently occur which manifest minor disorders, and it is safe in all alcoholic cases to strictly examine the state of the alimentary system and the condition of the bowels.

The *Prognosis* in these two forms of alcoholic insanity is good, for the agent is usually expelled without doing serious structural damage, and the chief risk in delirium tremens is death from exhaustion or intercurrent disease. In acute alcoholic mania the proportion of mental recoveries is less, perhaps only slightly so, but the risk of death is not so great. Many cases of this kind are liable to become chronic, if the indulgence in alcohol is again and again resumed.

The *Treatment* is determined by the case. As a general rule, a purgative is desirable, diluent drinks to flush the

kidneys and keep the skin active. Oatmeal gruel is often very helpful in the directions indicated, and so is beef-tea. After a long experience of such cases, I find that, in addition to the above, little more than expectant treatment is required, except where we recognise intercurrent symptoms. These we must treat, and we must also be quick to guard against accidents, suicide, or homicide, and be careful to feed the patient according to his digestive capacity. Some cases remain in a subacute state after the acute symptoms have passed off, for a long time, and threaten to pass into the chronic phase of the disease. A careful scrutiny of their bodily health and habits may reveal a hitherto hidden weakness of organic function which has so far baffled the observer and retarded convalescence. The best example of this is in gastric disorder, and though the patient may not refuse food absolutely, he may take a small quantity. For some of these the infusion or extract of condurango is indicated, and if it fails, especially in cases refusing food, large doses of bismuth may be tried with success.

Dipsomania is a term applied to that intense, irresistible craving for stimulants which is usually periodical, but not necessarily so. The distinction drawn by Sibbald between it and other forms of alcoholic insanity is that here we have a symptom, not a primary cause of disease. It occurs in all sorts and conditions of men and women, and at all ages. The worst cases are those which begin at puberty and adolescence, and women at the climacteric, and the most hopeful are those which have had a physical cause, such as injury or ill-health. When free from the spell, there may be little or no evidence of intellectual failure; but the moral character is certainly degraded in fully-established examples of dipsomania. Some cases not too deeply tainted may repent and make more or less successful attempts at reform; but it may be taken as a general rule that the course is retrograde morally, mentally, and physically. The typical dipsomaniac is an unprincipled liar, cunning and deceitful. He is as plausible a man as you will meet, and when free from drink a social factor of some importance to those who know him not. He is a moral reprobate, and therefore a

man who is restrained by no sense of honour or moral obligation whatever. Not even regard for law or public opinion —in other words, self-interest—has any weight in the balance against his strong craving impulses. It must not be supposed that many such men and women have not made good starts in life. Some, indeed, have been most estimable in their life and character, kind and helpful to others, generous to a fault, and the breakdown of such men and women is one of the saddest pictures of everyday life. It is gratifying to know, however, that not a few are safely guided by their friends through their declining years, the craving paroxysms practically dead; and though the memories are sad, self-respect has in great measure been regained.

Chronic Alcoholic Insanity.—Of many of those who come under this class, it may be said that they have become altered personalities in the true sense of the term. The sum total of the man is changed, and he views his environment with suspicion and altered perception. The chronic state is either a sequel to acute alcoholic insanity, or a gradual result of prolonged imbibing without necessarily being incapable. It should be distinguished from chronic alcoholism, which may never end in active insanity, though it may, and usually does, terminate in degeneration of mind and nervous system.

In chronic alcoholic insanity the most frequent and prominent features are :

1. *Hallucinations* of hearing, sometimes of touch or taste, and more rarely of sight. These hallucinations may be due to alterations in special centres, or may arise in the case of hearing from thought echoes. Voices are heard often accusing the man himself, or reproaching his wife, or suggesting her unfaithfulness. The hallucinations of hearing are not of a pleasant character, and they accentuate suspicions of conspiracy, persecution, and malevolence on the part of others. The other senses may be perverted so that suspicion of poisoning may arise, or ideas of mysterious electrical agency affecting the whole system.

2. *Morbid suspicion* is the predominant feeling. The man cannot help it, suspicion is ingrained in his nature—it may

be a gradual evolution of years altering his whole character —and every word and action is misconstrued. This state of suspicion has rendered him solitary and moody, and sometimes irritable and dangerous.

3. *Altered Adjustment to the Environment.*—As a result of the prolonged toxic influence insidiously acting on a nervous system which eventually undergoes material change, excessive sensibility in one direction and diminished sensibility in another give rise to altered reactions. Normal perception has ceased in relation to many stimulations, though a man may still recognise differences in temperature, appreciate musical qualities, and engage in conversation correctly so far as language is concerned. There is, all this notwithstanding, an undercurrent of morbid sensation, giving rise to mysterious suggestions which, operating on a suspicious nature, colour the whole emotional life and intellectual character of the man. In this way, to use a popular phrase, 'he sees everything through green spectacles,' 'with jaundiced eyes,' and thus adjusts himself anew and in a morbid sense to his environment. The environment is all right; it is the man who is wrong.

4. *Delusions.*—These are founded on suspicion and distrust, and any aversion of the past, whether pre-alcoholic or not, is sufficient to propagate delusions regarding particular persons. A man so affected cannot conceive of any friendly purpose in anything that is done for him. If he refuses food and requires to be fed, the stomach-tube is to convey poison, and the gag is to destroy his teeth. He thinks people are looking at him and making private comments regarding him. He may be a prey to hypochondriacal delusions, especially at the climacteric period; he often has delusions of identity, and of a sexual character, *e.g.*, regarding the malevolence of women working his ruin — delusions which somewhat resemble the delusions of many masturbators, and may in both cases have a genesis in the sexual centres.

It must not be supposed that the above general outline will include all cases of chronic alcoholic insanity. There are deviations according to personal differences of susceptibility and character, and there may be cases that show some

amelioration under treatment. The suicidal element, though less prevalent in the chronic form, is always potential if hallucinations of hearing are acute and distressing; but the homicidal impulse is more frequent, and wife and children and dearest friends may be the victims. The homicidal impulse may be sudden and follow a true aura (*vide* clinical case M. C.). Some of the symptoms here described show how nearly in character this type encroaches on, and sometimes overlaps, other forms—chronic progressive delusional, climacteric, and masturbational insanity; but from the first of these it may often be distinguished by the sullen, unsociable, aggressive character of the alcoholic form, by the fact that the delusions are less systematized, and not progressive, although they are often fixed; and by other characters (*vide* chapter on 'Chronic Progressive Insanity'). It is true, as already said, that the two may be combined. Regarding the other forms mentioned, it may be found that the climacteric has a history of alcoholic excess of long standing, but more often the alcoholic excess comes as a craving of that period *de novo*, and for masturbational insanity the age and absence of alcoholic history is sufficient to determine the diagnosis.

Alcoholic Dementia or Degeneration.—This is a condition often confounded with general paralysis, and when alcoholic excess operating on a morbidly plastic nervous system does produce general paralysis, there is nothing to choose between the two terms *if marked mental degeneration is evident at the outset*. One case at present in hospital, and included in the clinical illustrations, has rendered distinction between the two very difficult.

The signs being chiefly negative, you will find various degrees of mental degeneration, which, because of their negative character, because of the inoffensiveness of the individual, and because of the difficulty of obtaining tangible evidence on the subject, render a diagnosis of technical insanity impossible. The drinking habits do not constitute insanity, neither does the neglect of moral obligations, nor the failure of memory.

A stage however is reached, when his more enfeebled

memory and perception, his slowness and dulness of intellect, his incapacity for business, and his general apathy, call for interference with his liberty, and then it may be possible to certify the man insane.

The nervous signs may be well marked, or they may appear slowly; and according to the particular site selection of the alcoholic poison, they give evidence of its activity in some locality or other. In one case you find facial tremors and affection of speech, with or without pupillary symptoms; in others the first weakness may be found in the lower extremities—a paresis usually—or it may be a want of co-ordination of finer movements in the muscles of the hand.

The prognosis and treatment of the last two forms of alcoholic insanity cannot be spoken of very hopefully. Recognising that various degrees of alcoholic poisoning are possible, the volatile character of the agent which produces this mischief, and the chance that you may regard symptoms as organic which are still functional, a prognosis should be carefully hedged. It may be that only slight improvement is possible when alcohol has been withdrawn, but that may be enough to bring the patient back to a pre-borderland stage.

Treatment should consist of either absolute prohibition, or in particular cases, where medical men are satisfied that the exigencies of the case require it, moderate doses under restriction and discipline. Everything should be done for the general health, and in the treatment of particular bodily symptoms, that can be thought of. It is astonishing how men sometimes recover—at least for a time—losing their demented appearance, recovering a brightness of eyes and expression, and showing little evidence of those motor disorders that seemed likely to be permanent. That mischief irreparable has been done is true, but a functional improvement has taken place, and only evidences of an organic residuum remain. These may consist of a drooping of a corner of the mouth, a slurring of certain letters in speech, a slowness and carefulness of locomotion, or a feebleness of manipulation.

Opium and other Medicinal Stimulants.

While alcohol is the most general intoxicant and narcotic in use, it is by no means the only one, and medical men in general practice have in their wide experience of men and women met with strange instances of nervous cravings for stimulants other than alcohol. The nervous condition which excites this craving is not yet understood, nor is it a true solution of the problem to say that uncontrollable thirst is the real explanation. A man is thirsty, and may prefer a certain drink which is not alcoholic; but when he selects a drink containing an ingredient, or ingredients, which have a selective affinity for vaso-motor centres, or other centres of the nervous system, and thus increase his sense of well-being, the explanation must be much more complex. Moreover, why is it that some women will eat dry tea, and the natives of Paraguay and Brazil eat coca leaves, apart from their use as strength sustainers? Why, also, do men chew tobacco? Thirst is usually a factor where there is exposure to great heat and perspiration is profuse.

Whatever the explanation may be the fact remains, that people resort now more than ever to the indulgence in drugs charged with stimulant and narcotic properties. As a result of overwork, anxiety, and mental strain, this indulgence may first have seemed right and proper, but a snare the most insidious is here often unwittingly set for the unwary, and the medical profession is now only realizing the fact that it is not quite free of reproach in this respect. Moreover, medical men themselves, because of their very familiarity with such drugs, are apt to challenge results which are not infrequently disastrous.

Two motives can be adduced for this craving: one is sensual; the other is to obtain more or less oblivion from pain, mental distress, or a state of wakefulness. The drug most commonly in use is opium, and it is much more generally purchased without medical prescription than many suppose. Into the vexed question of the moral and social evils of opium we need not enter. De Quincey's talk and writings furnish a brilliant example of the mental creations

possible under its influence, and as a brain stimulant it is greater than alcohol, and more sustaining in its effects. Nevertheless, cases are not infrequent where it has altered the whole character—changed the personality more surely than alcohol; and it is when this baneful influence is manifest that medical attention is called to it, and often too late.

The first effect produced by opium is a gradual sense of exhilaration and mental activity without any consciousness of mental effort. By means of conversation or the mental stimulus of work this may be kept up for some time, and then sleep is impossible, and a state of delirium may be induced which will soon subside, except in very susceptible persons. In a few cases sexual or other impulses may be quickened, but if the individual from the first allows himself to be mentally passive and subjective, a stage of torpor ensues, the intensity of which is according to the dose and susceptibility of the patient.

In the case of the *habitué*, the wakening up is as terrible as the coming back to life of a drowned man; the diminution of mental well-being is most intense, and nothing will satisfy the poor unfortunate but a repetition of the dose. He will beg, borrow, or steal, and lie without flinching, to get at the supply which is to him as the very breath of heaven.

Opium differs from alcohol in this, that it does not affect the motor nervous system, and that its potency is more persistent, its hold on the nervous system more enduring, than in the case of alcoholic indulgence. It is said by Norman Kerr that other differences are quite noticeable; thus, opium inebriety is more functional than organic, more solitary in its gratification, more soothing in its mental effect, but more difficult to restrain. Opium raises the temperature; alcohol lowers it. That female opium inebriates are rare is a statement of Norman Kerr's which must be regarded with some doubt, and the experience of many apothecaries will confirm our doubts.

I need not go further into this subject, but simply catalogue a few more inebriants in use. These are chloral, chloroform, cocaine, and other drugs which have a stimu-

lating or soporific effect, and they usually have both combined, first stimulating, then depressing.

The question of the civil treatment of such cases, of legalized restraint, is one which we need not waste time over. It has been so fully threshed out, and the consensus of medical opinion is so strongly in favour of more drastic legislation, that all that can be done is to wait for the psychological moment when circumstances will force the question into the domain of practical politics.

In the last chapter of this work, on certification of the insane and other matters, information will be found regarding special homes for inebriates, and instructions for their admission.

Syphilitic Insanity.

Régis, who quotes the views of many authors on this subject, says that 'the predominant opinion is that syphilis may in certain cases cause or favour the appearance of insanity, but that insanity thus produced does not present any special characters; and that there is no syphilitic insanity properly so called. Generally, moreover, syphilis does not act alone in these cases, and there is almost always hereditary predisposition, and other occasional causes.'

This view, supported by strong general testimony, cannot be disputed. The value of the *syphilis* equation is an unknown quantity even when the syphilitic history is unmistakable, and when the still more definite assurance of post-mortem demonstration is produced.

The prevalence of this type of insanity is reckoned differently in different countries, so that discrepancies are great, and some confusion is the result. Clouston finds only one-half per cent. of all his cases so affected, while other authorities of eminence in London and abroad speak of syphilis as a factor of much more serious importance. The diagnosis of a syphilitic history is not by any means an easy matter in a large proportion of cases, and that may account partly for the discrepancy; but it is probably due in a higher ratio to the fact that a great city like London will prove a hotbed of syphilitic disease out of all proportion to its size, and out of all reasonable comparison with other centres.

For a very excellent *résumé* of the subject I cannot do better than refer the reader to the report of a discussion on syphilis in relation to insanity in Section XVII. of the Report of the Ninth International Medical Congress held at Washington in 1887. The views of such authorities as Savage, Hurd, Shuttleworth, Fletcher Beach, Brush, Wiglesworth, Spitzka, Godding, and others, are there well put forth.

Admitting as correct the statement already given, that syphilitic insanity is a conventional rather than a scientific term, it is still worth while trying to classify such symptoms of mental derangement as have been observed, so as to focus some practical conception of the disease in our minds. Clouston recognises four groups: (1) Secondary syphilitic insanity, occurring during the second stage of the disease, coincident with the eruption—curable and rare; (2) delusional syphilitic insanity, supposed by Clouston to be due to slight brain starvation and syphilitic arteritis that has become arrested; (3) vascular syphilitic insanity; and (4) syphilomatous insanity. There seems no valid reason why the two last should not be grouped together, for though pathologically different in their organic distribution, their mental effects cannot be differentiated. The second may be accepted clinically, but the pathological explanation, though perhaps helpful, may only explain some cases. The first group excludes cases of insanity associated with acute syphilis.

It may be taken as correct that the following arrangement represents the views of many observers: (1) Primary, a rare group in which acute syphilis is the chief cause; (2) secondary syphilitic insanity, with onset of secondary symptoms—corresponding to Clouston's first group; (3) delusional syphilitic insanity, with or without evidence of syphilitic brain lesion; (4) insanity associated with syphilitic brain lesion.

1. Insanity associated with acute syphilis is illustrated in a case described by Wiglesworth in the *résumé* above referred to. It was that of a young married woman only four months married, who was admitted into Rainhill Asylum suffering from an indurated chancre of one labium. She was dull,

melancholy, and rarely spoke. She resisted everything strongly—not merely being examined, but being washed, changed, etc. After six weeks she improved, but afterwards died from erysipelas. The connection of the insanity with syphilis, as Wiglesworth observes, was probably twofold—physical and moral—and there was nothing in the mental symptoms to suggest anything but 'resistive melancholia.'

It must also be remembered that any case of this kind coming under notice may be partly due to alcoholic excess or hereditary defect, or the syphilis may be secondary to mental disease now fully developed for the first time, and not hitherto suspected.

II. Insanity with Onset of Secondary Symptoms.—This form is not quite so rare as the preceding, and appears to partake often of the character of a febrile delirium subsiding with the disappearance of the secondary symptoms. One curious and instructive condition referred to by Spitzka and Brush, was the discovery made by Finger, that during the roseola eruption there is abolition of the knee-jerk, reappearance with the remission of the fever, and again disappearance. Clouston quotes a case of acute maniacal delirium described by Cadell (*Journal of Mental Science*, vol. xx., p. 564): 'A squamous syphilide appeared in April, and along with it marked mental excitement, and an extreme amount of motor restlessness, this maniacal state reaching its height in August and September, and then almost amounting to delirium.' Coincident with the disappearance of the syphilide mental recovery was established.

Savage describes the course of the disease in a jockey who as a trainer had a heavy responsibility, and was an extremely anxious man: 'He contracted syphilis, and five or six months after the development of it got double optic neuritis. . . . He saw vaguely and with uncertainty, and this added to his suspicions, so that he thought everyone who came near him was coming with the idea of injuring or tampering with him in some way. He became pugilistic, knocked people about, and had to be sent to the asylum, where specific treatment cured him rapidly.' This case can scarcely be classed as maniacal delirium, for there was a groundwork

of strong suspicion which gave a persistent character to the mental symptoms.

III. Delusional Syphilitic Insanity, with or without Evidence of Brain Lesion.—This form is more common, but its symptoms will suggest to many something closely resembling chronic alcoholic insanity. That alcoholic excess and syphilis are closely related as sequences in a large number of cases is a fact beyond question, and the delusions associated with syphilitic insanity may be due to the alcoholic poison in some cases at least.

The fact that insane suspicion, delusions of persecution, and the mysterious workings of unseen agencies, are prevalent in men and women who have lived lives of a most temperate character in all respects, leads to the conclusion that the condition of brain which underlies this mental departure is not directly related to toxæmia, but more probably to malnutrition as a secondary result of other pathogenic conditions as well as toxæmia.

It is, however, a remarkable fact that suspicion in the case of delusional syphilitic insanity is often the groundwork of the whole mental aberration, and it is the logical though morbid outcome of the previous manner of life and mental impressions of the individual. In some cases hallucinations of hearing are very troublesome, and feed and aggravate suspicion to an alarming extent. Systematized delusions are often generated from this morbid state of mind—delusions that electric machinery has been devised to work from a given point upon the patient's system; that a conspiracy is formed to accomplish his disgrace and everlasting punishment; that voices are heard through a phonograph, and come out through the pores of the skin, and this is done by a young woman to effect his destruction. These are but a few of the delusions that might be transcribed from the case-books. Mental symptoms may be present as the moral effect of syphilis, and not as a toxic or degenerative result. Considering all things, one is not surprised that the fact of this loathsome disease having settled down upon one's internal economy should be a great moral shock of itself, and induce morbid reflection, melancholy,

and hypochondriasis. Nor is it surprising that out of this should develop systematically delusions of unworthiness, and of uncleanness, which then go a step further to delusions of being contagious, till the final idea is fixed and dominant, that they communicate by the breath and exhalations of the skin a deadly poison, necessitating frequent ablution and depurative treatment. This becomes a veritable syphilophobia in those already infected, who dread that they may affect others.

IV. Insanity associated with Syphilitic Brain Lesion.—The nervous phenomena are here most in evidence, though it must not be forgotten that they may be present in the delusional type, and at least in the form of optic neuritis in the insanity of secondary syphilitis. Here, however, we have nervous phenomena in a profusion of varieties; indeed, there is nothing to suggest a family resemblance in the forms of nervous disease associated with the syphilitic constitution, and the mental sequels are scarcely less divergent in their general characters.

The syphilitic nerve lesions may be trivial, and the local paralyses of very limited distribution. Ptosis, strabismus or cephalalgia may be the only symptoms; but the range of possible nerve lesions is co-extensive with the nervous system, although the essential nerve elements themselves are only affected secondarily. It may suffice to add that tremor, epilepsy, paralysis in great or limited distribution, are often the most striking features of such cases, and that the mental symptoms are various. The relation of syphilis to general paralysis has been already discussed; but the symptoms may closely resemble the symptoms of general paralysis, and yet the syphilitic lesion be the essential feature, and its outward evidence the predominant indication in the case.

The so-called pseudo-general paralysis of syphilitic origin may in its inception and early development closely resemble general paralysis in the mental expansive delirium and exaltation, in defects of co-ordination of thought, speech and writing. In a case quite recently under treatment, the correspondence in many details between the two was most re-

markable, but the appearance of ptosis, premature baldness, and the history of the case, raised a suspicion of syphilis, which was afterwards confirmed. Anti-syphilitic treatment (iodide of potassium internally, and mercurial inunction of the scalp) was quickly followed by rapid cessation of the mental symptoms. The man is now a hopeless hemiplegic, but except for some mental failure he is able to occupy a position in society—a back seat, so to speak—yet a position which may be stationary for some years to come.

The mental condition may be one of lethargy and failure of mental power. It may be one of active insanity in spurts, or in a recurrent form it may show itself from time to time, and recovery still be possible. There is no special type, but the tendency is to dementia.

The prognosis is fair, and in the first and second forms described, is decidedly so. Many cases recover that, judging merely by the extent of paralysis without reference to its cause, are unfavourable, but they are never quite the same men after. Where mental enfeeblement is a marked feature, the prognosis is not so good.

The treatment is the usual anti-syphilitic treatment, attention to the state of the general health, the rules of hygiene, and the exercise of moral discipline and self-restraint.

Clinical Illustrations.

Delirium tremens, with the popular description of which we are all familiar, is not the form that usually reaches asylums. Such cases more often are treated in special side-rooms of general hospitals or workhouses, and the two following summaries are taken from notes of private practice.

I. Delirium Tremens with Hallucinations of Sight and Hearing; Vivid Panorama of Hallucinations of Sight; Hallucinations of Hearing and Smell; Extreme Exhaustion; Recovery.

This was the case of a gentleman, aged 38, who was in a strange delirious state for several days. He had been drinking on a small scale for a number of years, but three months previous to the attack he had been drinking whisky like

water, disposing of several bottles in twenty-four hours. For five days and nights he did not sleep. He was distracted by the panorama of scenes that passed before him. He saw a man enclosed by wire netting in a kind of cage, with his person exposed; then came a procession of women, one by one, headed by the patient's wife. Then his wife in reality came into the room, and he called her the blackest names possible, for so debasing herself as to go near the man in the netting. The next scene was in Paris in one of the cafés-chantant, where he saw his own wife with other women in a semi-nude state, conducting themselves in an abandoned, indecently suggestive manner. These scenes all passed before him in a mirror on the wall of his room. He heard voices, saw insects crawling all over the beds, and he tried to catch them. He declared he was sickened by the smell of dead rats in a corner of the bed. He was extremely restless, delirious, and unconscious of his true position, but he had not forgotten his previous regular habits of employment. He wanted to go to work in the middle of the night, and threatened to jump out of the window if he wasn't allowed. Owing to his perpetual restlessness, and continually throwing the clothes off, he got very cold, and required hot bottles applied. The pupils were dilated, the pulse was very rapid, the appetite much impaired, and death from exhaustion was almost imminent. He required to be fed very frequently, with small quantities at a time, of egg-custard, beef-tea, semolina, or other puddings. He had soda-and-milk, and lemon-juice as often as he wished. He required sleeping-draughts and a medicinal stimulant. The sixth night he slept for ten hours at a stretch, and wakened in his right mind. After his recovery he felt an itch in the skin all over, from the crown of the head to the sole of the feet. This disappeared very soon.

II. Epileptiform Seizures, Severe Gastro-hepatic Disorder, Vomiting and Purging, Hallucinations of Sight, Fierce Craving for Drink, Violent Excitement; Recovery.

This man, æt. 55, had been a constant tippler for thirty years. The attack began with epileptiform seizures, six or

seven of them within a week. He took two the first day, one on each of the following three days; an interval of freedom followed, and then they were repeated in a milder form. They had all the appearance of epileptic fits, but there were two notable exceptions to the general rule. There was no warning cry, no aura, and there was no post-epileptic coma, but restlessness immediately followed the fits. The patient's appetite began to fail months previous to the attack, and when he came under treatment there was much purging and vomiting for eight days, so that he was extremely reduced for want of nourishment, and owing to his excitement; the vomiting was of a bilious character; the fæces were dark and most offensive in odour. The first food that settled on his stomach was milk-and-soda.

During all this time he had hallucinations of sight; he saw men and women walking on their heads constantly. He was under the delusion that he was in Liverpool. After the second day he became outrageous; would tear himself away from his attendant in order to get drink, and had to be restrained. He had to be bundled up in the dry pack, otherwise there would have been accidents, and while so restrained he was in a terrible state of mind, imploring to be released; but soon this subsided and he recovered.

III. Acute Alcoholic Insanity; Drinking for a Year; Delusions of Persecution; Violent, Dangerous; Various Hallucinations and Delusions; Recovery.

T. B., æt. 34. This man had been a very heavy drinker, and was known frequently to drink two bottles a day, and sometimes as many as three. His condition before admission to the asylum was much more excited and violent than it was a day after admission. We sometimes find that there is a certain amount of shock as the result of putting a man under restraint in a place which is strange to him. Thereafter he pulls himself together, and for a time at least seems to be very much better. On admission this man was rather excited, but spoke very sensibly, though in an excited manner; the hands were tremulous, the face flushed, and he was perspiring a little. The pulse was 120 per minute, full,

and regular. The tongue was covered with a thick, moist, white fur; the pupils were dilated and fairly active; knee reflexes not active, other reflexes present.

For the first three days his condition continued much the same. He was rather restless, and disposed to be irritable. He was talkative, and inclined to pass from one subject to another in a rather irrelevant way.

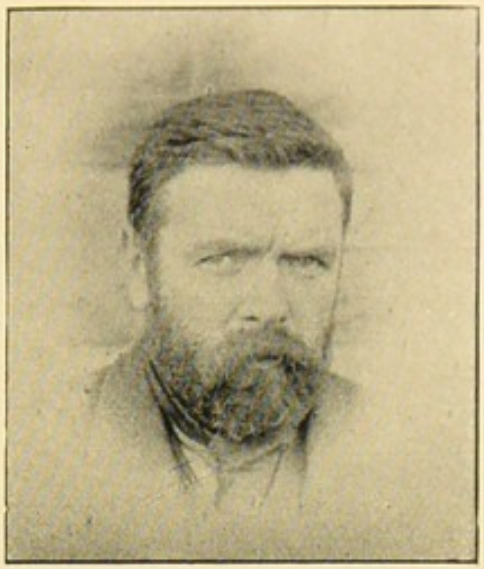
On the afternoon of the third day he became more excited and irritable, and in the evening he became delirious. During these three days he perspired freely; he passed very little urine, but he was often trying to do so. The bladder seemed in an irritable state, and micturition caused pain. The urine was very high-coloured, with a specific gravity of 1031, but containing no albumin. The appetite was poor, the stomach extremely irritable, and he rejected food.

At 10 o'clock on the night of the third day, he said he would not come out of his bed, as there were women in the dormitory; he was threatening and violent; he had to be put in the padded room, and it was now clear that his mind was far astray, and that he was under the influence of hallucinations. He believed he was ploughing in the fields, and he ran the horses up against the walls of the room; he wanted next to kill a cat which he saw in the room, and he declared he heard people shooting. He walked about the room to gather the sheep; said the window above the room door was falling, and sat in a corner of the room to warm himself at an imaginary fire. The perspiration was pouring over him, and the tremor was increased. Two days later it was reported that he was much quieter, and that his mind was battling with confusing ideas as to who he was and where he was. He seemed very much at sea, declared that he was very tired, which was probably the case; but he explained it as due to his 'riding all day yesterday with the yeomanry.' Perspiration ceased, tremors diminished, knee reflexes slightly exaggerated, pulse 92, soft and regular. Later in the day he became conscious, and realized his position and surroundings; but the urine was still high-coloured and scanty, with a specific gravity of 1030. The tremors had disappeared. He made a good recovery.

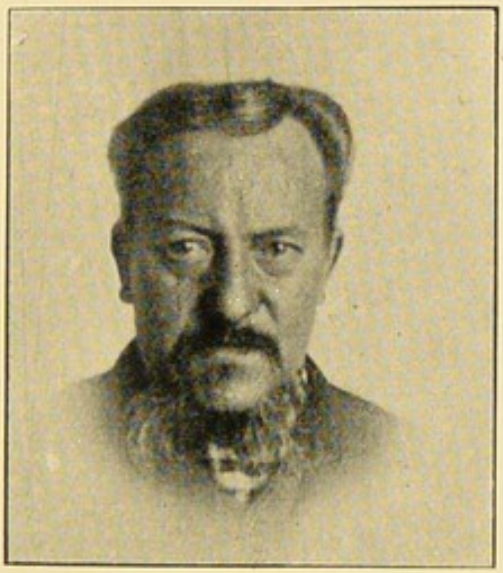
Plate VII.—VARIOUS TYPES.



IMBECILITY.



SYPHILITIC INSANITY (HEMIPLEGIA).



ALCOHOLIC DEMENTIA.



IDIOCY (HYDROCEPHALIC-SYPHILITIC).



IDIOCY.

To face p. 302.

In addition to Case III. the following four instances of acute alcoholic insanity as met with in asylums will suffice. There is no sharp line of distinction possible between the two cases of delirium tremens and Case III. already given. Of those now following, A. and B. were male cases ; C. and D., female.

IV. Nervous Terrified Expression ; Hallucinations ; Acute Excitement of Fear.

A. was a tall, slender, delicate man, æt. 32. 'Extremely depressed and terrified in expression. Hallucinations of hearing. Imagined voices were charging him with crime. He was restless, agitated, and tremulous, and very much alarmed, especially at night when the lights were turned out.' Excitement soon ceased, but he was slow in recovering mental vigour. Recovered.

V. Previous Attacks ; Mania from Alcoholic Excess ; no Signs of it in Nervous System.

B. 'is an old stager, has been insane through drink several times, and his condition resembles ordinary acute mania, for it is free from delirium, hallucinations, or tremor. He talks tall and yet coherently, seems to be poking fun at his doctor and attendants, and almost suggests rogue rather than fool. He says he is the man in the moon, that Jesus Christ is coming to stay with him. He has threatened violence, and a stone was found in one of his pockets for the purpose, he averred, of "splitting their skulls." He is insane in speech as well as conduct. He carries in his napkin some stones which, he says, are diamonds and pearls. He dresses fantastically, makes grimaces, is filthy in his habits, for he gobbles his food with his hands, and also smears his clothes with it. He is sleepless, and does not take his food well, or chew it like a rational mortal.' The attacks subside in about six weeks, and then he is found to be a sensible, useful, agreeable fellow.

VI. Hallucinations, Homicidal Impulse, Extreme Agitation and Tremor, Gastric Symptoms.

C., a married woman, æt. 34. 'Hears imaginary voices which abuse her. She tried to jump out of the window in

order to throttle people who she believed were calling her names in the street (hallucinations of hearing). Says she saw God and the angels in heaven. She is in an extreme state of violent agitation with general tremor, and her eyes look wild; tongue tremulous; left pupil larger than right.' The excitement was followed by depression of mind, and gastric irritation with sickness and inclination to vomit after food. She is then described as 'still shaky and tremulous, and feeling very nervous. The memory is good, though impaired as to some of the most recent events of her excitement. Remembers being taken to the police office, where she saw the heavens and the Judgment. Complains of palpitation. Tendon reflex impaired; plantar reflex sluggish.' Recovered.

VII. Acute Mania of Wild, Reckless, Abusive Type.

D., another married woman, æt. 40, was a reckless, fiendish woman, who sulked and stormed by turns. Mental confusion and irritability like that of the post-epileptic state were manifested. Asked, 'Where are you going to?' when she moved suddenly from her chair, she answered, 'To hell, if you know where that is.' Tongue furred and very tremulous. Pupils rather contracted, but active; hands tremulous; pulse 120; fixed, glassy stare. Later, when the toxic effects began to wear off, she complained of frontal headache, and desquamation of the hands occurred. The left pupil was larger than the right, and she had hallucinations of hearing, which may have persisted all the time. Imagined she heard people say, 'She steals.' Still later she complained of attacks of giddiness, and the tongue remained foul. Soon after, the tongue cleared up, the hallucinations ceased, normal consciousness was restored, she made herself useful, and was discharged recovered.

It should be noted here that hallucinations of hearing and delusions of conspiracy and persecution are often recovered from in acute alcoholic insanity, even when the patient has been insane several times.

Examples of Dipsomania.

The following is a type familiar to all practitioners, and is taken from records of private practice. A brief sketch of the man's life-history is given.

VIII. R. B., male, æt. 50, son of a publican, and brought up at a public-house until adult life. No occupation. Took to drink early in life, when he would at intervals get drunk. His father died, and left him a fair amount of cash, which he soon got rid of by drinking. At middle age he had become a confirmed drunkard, only rarely for a week or fortnight being sober. He had money left him several times by relatives, which he succeeded in getting through by means of drink with marvellous rapidity. For the last ten or more years of his life his gait was tottery, his hands were shaky, his eyes staring and vacant, and frequently bloodshot. The quantity of solid food which he could take gradually diminished, and for the last two years or more he lived without solid food, only taking spirits and milk, or some fluid preparations of meat, as beef-tea or chicken soup. He was not particular (at least during the last few years) what spirit he took, but would frequently ring the changes in a single day on rum, whisky, gin, and brandy. As time went on, his kidneys became affected, afterwards his heart and liver, and before his death his legs and abdomen were immensely œdematous and ascitic; his face was puffy and bloated; his skin jaundiced; his eyes bloodshot; his breathing difficult and embarrassed; his sight indistinct; he was the subject of illusions and hallucinations of sight and hearing, and had delusions of suspicion of those around him. He was constantly calling out for drink (he had lived in a public-house again for several years before his death). He suffered from albuminuria, and occasionally from hæmaturia, and eventually died of uræmic coma. There seems in this case to have been a distinct hereditary tendency, and there were occasional pauses in his drinking habits, the craving coming on in fresh accessions time after time, till at last the drinking became continuous.

Cases of dipsomania occur which come under asylum care either as voluntary boarders or as legal committals.

IX. J. B. was a medical man in the Indian service, and he took first to opium and afterwards to alcohol, but the starting-point was an injury to his elbow-joint with excruciating neuralgia. When the arm recovered, his general health was so shattered, and his nerve so far gone, that a fierce, uncontrollable craving for alcohol was induced, and after many crises of the drink-craving, coupled with the appetite for opium which still continued, and many attacks of remorse and repentance, he placed himself voluntarily in an asylum, where his regular manner of living, healthy surroundings, and freedom from temptation worked apparent wonders. His self-control could be tested by inviting him to supper in the medical officers' room, where everyone had drink but himself. It did not turn a hair of him. After more than a year of this, he was suddenly sent for because of family trouble at home, and even that, for a time at least, was insufficient to upset him; but the wear and tear of anxiety and trouble eventually told on him, the strain was too much, and he broke away from restraint entirely.

X. Notes of a Case of Chronic Alcoholic Insanity admitted Ten Years ago; a Miner; Delusions of Suspicion and Unseen Agency; Hallucinations of Hearing.

M. C., æt. 33. 'This man was for years a chronic soaker, but always fit for work until lately, when he showed incipient signs of insanity, at first merely morbid suspicion and the hearing of peculiar sounds. Now he is unmistakably insane, and his hallucinations and perverted sensations are most troublesome. He has hallucinations of hearing and sight. He hears the Almighty "and obeys orders." Takes fits of partial stupor, with eyes suffused, slight jaundiced appearance of skin, and angry expression. In this state of stupidity he is sullen, suspicious, refuses food, the head is hot, the pupils small and insensitive.'

Notes Two Years after.—'M. C. is most dangerous; has made an attempt on the life of reporter twice, once with a

spade. These attempts are true homicidal attempts, and are preceded by a distinct aura in the breast, working upwards. Delusions entertained that doctor only discharges Catholics, that men are in women's clothes in the female wards.'

Present State.—Much less frank, more reserved, sullen, and unsociable. Has now believed for some years that a battery in the doctor's house is connected with his frame, and discharges electricity into him. He has been indifferent to his wife, but not to his children. Indeed, there seemed from his expression to be a positive aversion to his wife, and it is quite consistent with this form of insanity that he should entertain delusions reflecting on her character.

Alcoholic Dementia.

XI. Case of a Chronic Soaker with Paretic Symptoms and Signs of Mental Decay.

N. M. T., æt. 57, has been a chronic drinker for many years. His appearance suggests it. He is fairly well preserved. He shuffles with his feet in walking, looks at anyone with an expressionless stare, speaks hesitatingly and thickly, and is slow in his mental time-reaction. His memory for recent events is much impaired. When being tested he is roused up, and is evidently conscious of his impaired memory, for he fights shy of direct answers to questions, being afraid to commit himself. At times he is restless, wandering about in a half-dazed condition, and then when questioned he is found to be more than usually stupid and confused. Sometimes he has childish outbursts of crying, and cannot give any explanation; they seem to be mere emotional outbursts.

The motor symptoms have been slight, and there is nothing beyond slow shuffling locomotion, feeble grip, and thickness of speech; but it is observed that the sense of touch, impaired a year ago when he was admitted, is now more seriously involved. Sense of smell much impaired. Knee reflexes impaired, especially left. Dynamometer, R. 40, L. 40.

For a time it seemed likely that this case would improve under favourable hygienic conditions, and forced abstention from alcohol, but the improvement was merely temporary.

XII. Insanity from Opium Indulgence.

Mrs. M., æt. 45. The medical certificates in this case stated that she was known to be addicted to opium-drinking for years, that she was under the delusion that people came into her room at night, even though the door was locked, that they stole things and tumbled everything upside down. She had hallucinations of hearing, but not of sight. She charged her neighbours by name with stealing and objectionable practices, and she attacked them and threatened to 'rip' them up. Later she was described as having hallucinations of sight.

Her state on admission to the asylum is thus described:

Circulatory.—Pulse 78, small and compressible. Second sound of heart prolonged.

Respiratory.—Normal.

Digestive.—Tongue moist, flabby, fairly clean; abdomen full and tympanitic in some parts, dull to percussion on right side, especially over transverse colon; flatulence, anorexia.

Nervous.—Eyes brown, pupils medium active; no motor or sensory impairment; no tremor.

Mental.—She is quiet and composed, reticent to a fault, quite at home in the asylum. She evinces no interest in her husband (her children are dead), and has no moral sense whatever. She speaks of her husband as if he were in no way related to her.

History.—It is interesting to note the history of her opium habit as given by her husband. It was first given medicinally for insomnia seventeen years ago, after a confinement, but only for a few days. She afterwards took to it herself, and the dose mounted up till she took about 2 ounces daily. The craving for it was strongest in the evening. She drank whisky as well. Has had a family of five and two miscarriages.

Syphilitic Insanity.

XIII. Syphilis and Alcoholic Excess.

M. B., prostitute, æt. 20. Two recent cicatrices on vulva; several condylomata; syphilitic infection three months ago; hair falling out. Has been drinking.

Mental State.—'She imagines she is followed by men and women who have designs on her life. She has hallucinations—hears their voices and answers back. She has a sensation of something she cannot explain running up her back. She occasionally starts up and looks round the room for someone.'

Following this came an intermediate state before recovery, with sensory perversions dissipated, extreme mental depression, and painful retrospection. After three months she was discharged recovered. *Here there were undoubtedly in active operation two poisons—syphilitic and alcoholic.*

XIV. Illegitimacy, Disowned, Prostitute, Insane.

C. L. is now a woman of forty-five, and has been insane for ten years. As in almost all syphilitic cases, there is a history here of alcoholic indulgence. She was sent to prison; while there became deaf, and developed hallucinations of hearing, viz., that witches speak to her, and are the cause of her being so deaf. She has had this hallucination consistently for ten years. She is rather light-minded and frivolous, has little moral sense, has numerous hypochondriacal ideas which may be founded on obscure pains which she feels in her bones and elsewhere. She is in apparently robust health, but her head is very bald.

XV. Gonorrhœa, Syphilis, Delusions of Persecution, Megalomania.

J. M. B., æt. 27. A very complete history of primary and secondary effects. Hallucinations—hears people whispering to him at night. Says the sounds come through a phonograph into his system, and through the pores of his body. They do it to annoy him, and a young woman is at the bottom of it. Imagines that the general public speak about him in order to torment him, and accuse him of importing a bad smell. At the same time he entertains the delusion that he is to get three millions. This case is evidently a near approach to the degenerate type. Poor physique, narrow chest, weak expression. He suffers from periodical attacks of headache in vertex; is hypochondriacal, restless, unsettled, amorous. *Has not recovered.*

XVI. Alcoholic Excess, Syphilis, Sunstroke; Old Soldier.

J. A., æt. 58. Suffered from attacks of dizziness and deafness; then followed delusions of persecution, irritability, violence, facile disposition, thickness of speech, and slight ptosis of the left eyelid. This man improved very much, and was discharged.

XVII. Syphilis in South Africa Eleven Years ago; Hemiplegia, Insanity.

A. P., æt. 36, married. Seven years ago lost power in left side, and speech failed. Recovered these, but a year later left hemiplegia reappeared, and he was unable to work. On admission to the asylum, he was found to have left hemiplegia with inability to balance himself properly on either leg, or to walk along a straight line. His speech was drawling and thick, the pupils sometimes unequal, but quite responsive to light and accommodation. He is indolent, lethargic, mentally weak and inactive; his memory is somewhat impaired. He is childish, petulant, and takes no interest in his wife, who has been left to her own resources, or in his child. He is suspicious of his wife, and refuses to write to her, because he believes there is underhand work carried on between her and the asylum doctors. Before he was taken to the asylum, his attack of paralysis so depressed him that he made a feeble attempt at suicide by drowning, but had not courage to finish what he had begun.

CHAPTER XV.

INSANITY OF PREGNANCY—PUERPERAL INSANITY—INSANITY OF LACTATION.

The question of the pathognomonic significance of mental symptoms at these periods as evidences of distinct forms of insanity—Insanity of pregnancy rare — The melancholic form predominates — Moral perversion a frequent symptom—Causes—Treatment—Puerperal insanity—Ages most liable—Primipara or multipara—Date of attack—Previous history—Heredity—Health during pregnancy—Nature of labour and sequelæ — Premonitory signs or danger-signals—Symptoms of mania—Melancholia—Stupor—Physical conditions—Prognosis—Treatment.

THESE three mental episodes of what are otherwise physiological conditions, viz., pregnancy, the puerperal state and lactation, have long been recognised by the names given at the head of this chapter. Some authorities have found it impossible to conceive from experience or otherwise of any necessity for recognising the existence of these forms. They have been unable to discover anything pathognomonic or uniform and distinctive in the symptoms or course of mental disease arising at any of the periods mentioned. If this objection is strained to its logical conclusion, we should not be able to give a classification of insanity at all.

Two arguments against it are these: (1) that we have to deal with patients who have passed or are passing through a physiological crisis, a critical period of female life, a period attended with more or less nervous tension and mental anxiety, and this period of great physical changes is clearly correlated to these nervous and mental symptoms; (2) the condition of pregnancy, the puerperal state and lactation, though presenting in some respects mental peculiarities which might be associated with any other period, yet present also many features which are so frequently repeated in the puer-

peral and allied insanities, and which give many cases so strong a family resemblance, that it would be unreasonable to group them under any other name.

Some symptoms may almost with certainty be referred to one particular stage of this crisis in female history, but other symptoms may be referred to all. If we should endeavour to classify the symptoms of bodily disease, taking these symptoms alone just as we might take mental symptoms alone, without reference to the physical conditions underlying them, we should find confusion arising, for we are not able thus to put on one side heart disease, on the other side lung disease, or it may be kidney disease. An all-around examination and diagnosis of the case enables us to segregate it from others with perhaps similar mental symptoms, but a different history, physical state, and causation. Indigestion may be taken for heart disease, until we apply the stethoscope. It may be argued that heart disease causes definite symptoms, and the puerperal state does not; but this is not quite correct; besides, the mental disease is only potential, and often remotely so, without the pregnant or puerperal state. In all cases we endeavour to discover a particular physical state in relation to or in explanation of symptoms, and we take the physical state and the symptoms, whether they be cardiac, respiratory, renal or mental, as the *tout ensemble* of the disease.

We are bound, of course, to admit that the mental phase is secondary to, and necessarily a result of, the puerperal state; but there is more than mere puerperal causation to take into account in many cases, and the accident of pregnancy, the puerperal state or lactation may be only the final cause. While it is true that some cases become insane apart from these periods, it is quite correct to say that the great majority now become insane for the first time, and in their mental symptoms have a family resemblance to each other. Moreover, it avails little to say that previous to this attack of puerperal insanity the patient was insane before marriage, or has passed through puerperal crises on previous occasions without mental disturbance. As has been fully explained in the chapter on causation, the resistance of the individual must be taken in conjunction with causes, in order to

appreciate the sum total of the ætiology of an attack, and it would obviously be absurd to say that diminished resistance at the particular period would produce insanity without the period itself to precipitate it.

Insanity of Pregnancy.

We are still far from possessing an adequate conception of the psychology of pregnancy. It is a curious fact that, while no time of a woman's life is attended so frequently with nervous and mental changes short of insanity, women who are pregnant rarely become insane. So extremely rare is this form of insanity that Clouston had experience of only fifteen cases in nine years in an asylum which admits nearly 170 female patients a year. Dr. Batty Tuke, in the *Edinburgh Medical Journal*, 1865-66, records the observations made on twenty-eight cases taken from the records of the same asylum extending over a considerable number of years. Other authorities have had a similar experience of the extreme rarity of this form of mental disease. In twelve years I had twelve cases, of which two were merely incidents of recurrent insanity, and under treatment during these twelve years were 638 recent cases of female insanity. My experience, therefore, gives a larger percentage than Clouston's. From these limited results, it is not surprising that somewhat different accounts should be given in various text-books; but a careful study and comparison of the whole allows of certain general conclusions.

It is clear at least that, whatever forms of insanity may appear at this time, the melancholic form predominates. The experience of Savage is that melancholic insanity with hypochondriacal symptoms is the most general form. Clouston, on the other hand, had nine cases maniacal, and six melancholic. Régis states that the insanity of pregnancy habitually takes the melancholic form. Batty Tuke found fifteen cases of melancholia, five of dementia (stupor) with melancholia, four of dipsomania, two of moral perversion, and two of mania with exaltation. My experience has been that five out of ten were maniacal and five melancholic; but to this

must be added the fact that the maniacal cases sometimes exhibit a distinct moral perversion, a surly, unsociable, irritable disposition, which gives the disease a characteristic feature of its own, and some of these cases might be called surly melancholics rather than maniacs.

Before going into details, it may be well to keep in view the fact that the nervous and mental symptoms of pregnancy often approach very nearly to the borderland of insanity. While a great deal is conceded to the pregnant woman, and every reasonable excuse that can be offered for her change of character, her peculiar longings, and her trying disposition, is made, it must be admitted that moral perversion as a feature of this condition raises serious questions of mental unsoundness and irresponsibility. Untruthfulness is sometimes a symptom of what would be called normal pregnancy; stealing, or, to use a more correct term, kleptomania, is a symptom which often leads pregnant women into the grip of the law. This, observed many years ago by Laycock, is also mentioned by Régis and Clouston, and Dr. J. F. Sutherland informs me that while surgeon of H.M. Prison, Glasgow, he had frequently to examine cases of pregnancy imprisoned for stealing. Bearing these facts in mind, it will not surprise us to find that the moral sense is in many cases affected.

The most potent causes of insanity of pregnancy are illegitimacy and wife-desertion. Three out of ten of my cases were cases of desertion; four were cases of illegitimacy. This fact is confirmed by the experience of others.

Moral causes operate seriously. One woman, recently married, had run into debt and deceived her husband in other ways; remorse seized her, or perhaps it was fear of being found out. In the melancholic form there may be simply depression, a weariness of life without impulse to destroy it, or it may be an acute anxiety as to the future. In my experience there was only one determined suicidal impulse, whereas Clouston records seven out of fifteen, some of them being desperately suicidal. It must be added, however, that in one case under treatment in my wards, on the approach of labour, violence to the abdomen was attempted in the hope of killing the child. This woman—married and

deserted—might be regarded as a subject of melancholia and moral insanity combined, for her moral sense was decidedly blunted.

One important fact ought not to be overlooked, viz., that the emotional nature, no matter what the general complexion of the mental symptoms may be, is often perverted, whether it be a case of melancholia, mania, or moral insanity; there is frequently sexual aversion, a dislike of the husband which may be nameless in its character, purely subjective and not impulsive, or lead to violent outbreaks.

The maniacal form may be delirious in character; it may be hysterical, or assume the character of acute mania with exaltation. Two of my cases were of the acute delirious type—one with epilepsy, which recovered, and one with typhoid fever, which died. Where it appears with a strong moral perversion, it may be, as already suggested, rather a perverted melancholia than true mania, the aggressive outbreak, the surly exhibition of discontent, the outcome of an unhappy, angry state of mind. Such patients are obstinately idle and suspicious, rude, quarrelsome, sour and unsociable, much given to brooding, and so taciturn that it is often difficult to get at their thoughts.

Insanity of pregnancy may come on in any month of pregnancy, and while it generally makes its appearance during the later months, it may be found as early as the second, or, for all I know to the contrary, earlier. One of my cases occurred in the second month, an exceedingly suicidal one. Batty Tuke records three in the third month, five in the fifth, one in the sixth, nine in the seventh, one in the eighth, and nine not reported. Some are agreed that it occurs oftener in later pregnancies, while others say that it occurs in the earlier, and is most frequent in primipara. Considering that it often occurs in cases of illegitimacy, the susceptibility of the primiparous state should be discounted, for the moral cause is here to be taken most into account. I think it extremely likely that, as Blandford observes, it is most usually to be found in women who have had many children rapidly, and who become pregnant in an exhausted condition. The prognosis, according to

Clouston, is fairly good, 60 per cent. of his cases having recovered. My experience was seven recoveries out of ten, two cases that did not recover being both cases of melancholia; in the one the child was illegitimate, the other was the case of a deserted wife, who exhibited great moral perversion; the tenth died. It is usually expected that with parturition recovery will take place, but very often this is not the case. Recovery in one of my patients did not come on for eighteen months, and several did not recover for six months after parturition.

The treatment in such cases must be in the direction of improving the general health, increasing the stability of the nervous system, promoting quiet, such gentle exercise as is desirable in the open air, and every rational means of procuring sleep.

The question of precipitating labour is not likely to arise, for it is astonishing how tolerant the uterus is of maniacal disturbance, great motor excitement and prolonged sleeplessness. I have been consulted, however, by medical men, who have been alarmed and anxious as to the outcome of such cases, as to the propriety of inducing labour. The circumstances, however, did not appear to me to justify this course, and the patients were delivered at the proper time without injury to mother or child.

Attention requires to be given to the state of digestion and the condition of the bowels. Much relief to the patient's mental state is in this way afforded, and a quieter mental period ensues. It is not wise to thwart these women as regards predilections for particular eatables or drinkables. A certain latitude, which might be thought unreasonable, is perfectly safe; but if a compromise can be effected—and it can by the exercise of some judgment and tact in many cases—then a great deal is gained in the physiological dieting of the patient.

In the mental depression and anxiety, with vague fears, of primipara, a great deal can be done by cheerful society, drives in the open air, varied interests and occupations to tide over a trying time. Such patients should not be allowed to brood or to isolate themselves from others; for their

thoughts always run in the one direction, and by the summation of morbid stimuli thus produced, they overcloud the mind, and make life sad and wearisome.

Puerperal Insanity.

Puerperal insanity is much more frequent than the insanity of pregnancy, and there must be many minor cases —and the same to a less degree is probably true of the insanity of pregnancy—which do not reach asylums for very obvious reasons. As far as they can, medical men and the friends of the patients will use every means to prevent such cases being sent to asylums. It is probable that in the houses of the better classes, where ways and means are ample, many cases are treated by private practitioners; and one reason why there is a discrepancy in the statistics of different asylums is, that some asylums are entirely reserved for patients of the poorer classes, while others are in whole or part reserved for private paying patients. About 5 per cent. of all female cases admitted from the lower ranks of life suffer from puerperal insanity. It must be self-evident that, for sentimental and other reasons, as often as possible patients suffering from this disease should be treated at home. One cause of puerperal insanity is emotional disturbance at a time when self-control must be below par, and added to this the great physiological demands made upon the system is such, that there comes a feverish disorder and insanity by sympathy. This frequently implies that insanity is potential only under extraordinary physical conditions, and where not acute, or where the symptoms are transient, home treatment is sufficient. Further, the stigma of lunacy is considerably minimized, if not entirely obliterated, by private treatment. Having made a very careful study of this subject for many years, this chapter will deal largely with my own experience. Where, however, the researches of others will throw further light on the subject, reference will be made to them.

Age at which the Attack appears.—It used to be an article of faith with authorities on this subject, that women under thirty would not readily succumb to a mental attack, while

those over thirty were, conversely, much more liable to it. This is on all-fours with the doctrine which has prevailed, and still is entertained by some, that labour is much more serious after thirty than before it. Whatever individual opinions may still obtain, one thing is certain, that puerperal insanity is by no means exclusively reserved for those of later life. It may be more than formerly, for the ages at which women marry alter with the times in which they live, and it is certain that a larger number now marry above thirty than formerly. This fact alone must render statistics on the subject useless, unless we obtain satisfactory marriage statistics of the districts from which our puerperal cases come. Tuke's results certainly contradict some prevalent views on the subject, for he found forty-one cases out of seventy-three under the age of thirty. Out of my first twenty cases, sixteen were under thirty on their first attack.

Primipara or Multipara.—The number of previous pregnancies has also been stated, in order to ascertain whether frequent pregnancies are more productive of puerperal insanity than infrequent. Without statistics of the number of pregnancies in the population from which our patients are drawn, we are unable to furnish any precise data, but it will probably be found that the balance of evidence is against the primiparous, and in favour of multiparous cases. In addition must be taken into account the intervals between pregnancies.

Date of the Attack.—Puerperal insanity in the great proportion of cases makes itself manifest before the end of the first week, at least 50 per cent. of the cases showing signs of mental change within this limit. Wiglesworth gives less. Tuke gives 50 per cent., and my experience is 65 per cent. The date on admission to the asylum is often given—or perhaps a day earlier—as the date of the onset of the attack; but the actual beginnings, if a careful investigation is made, will be found to start sooner. In some they may start the very first day. The fourth and the fifth days are critical days in my experience; but any time during the first week this catastrophe is possible, because a summation of stimuli, not starting merely from parturition, but coming on through

the later months of pregnancy, accentuates the nervous tension at this time to an almost uncontrollable extent in susceptible subjects.

Previous History.—As has been already observed, there is a natural tendency, especially in the neurotic and mentally excitable, to nervous and mental disorders during pregnancy. These, though mild and rarely finding expression in actual insanity of pregnancy, may seriously affect the mental prognosis when labour is imminent. I found that mental causes were insidiously at work for weeks or months of pregnancy in many of my puerperal cases. A morbid habit is created, a disposition to brood over and magnify the anxieties, disappointments and bereavements of the past, or to foster the religious emotions up to a state of morbid exaltation. When a mother had lost a child, the subject was sure to engross her thoughts, to prey upon her mind with the intensity of disease, and to colour her delusions afterwards. I was struck with the remarkable frequency of such bereavements in the history of my puerperal cases, and it seemed as if the state of mind in a woman again pregnant just after losing a child might be expressed in the words *Cui bono?* The other causes of mental disturbance not amounting to insanity during pregnancy were: (1) Desertion by husband, (2) poverty, (3) illegitimacy, (4) fright, (5) dread of confinement, (6) various disorders of health during pregnancy, (7) insufficient pause, or none, after lactation, and frequent pregnancies, (8) frequently recurring miscarriages.

Heredity.—Nervous and mental susceptibility is found to be a hereditary acquisition in a larger number of cases than might have been supposed. Wiglesworth gives it at 25·8 per cent., and Tuke at 30 per cent., and, taking cases of collateral heredity, I find it 40 per cent. This percentage of mine does not include a hereditary history of intemperance in one or more parents.

Health during Pregnancy.—Decided mental depression will be found in a considerable number of cases, sometimes hysteria, and not infrequently hypochondria. There is often a history of bodily disease, such as phthisis, morbus cordis, anæmia, dyspepsia, impairments of general health, etc. In

some cases, owing to very straitened circumstances and poverty, there is starvation of a system on which there is great demand : and women may therefore succumb easily to puerperal insanity.

Nature of Labour, and its Sequelæ.—The question of the influence of labour itself as an exciting cause has received probably more attention than it deserves. In Tuke's cases instrumental labour is credited with nine, but at the time when his paper was written instrumental labour was regarded as a much more serious interference with the course of events than it is now. The same may be said of chloroform administration. In my experience labour was not irregular or unduly tedious in a very large majority of the cases, but it must be added that a few of them had passed through severe operative ordeals. I do not wish to discount the importance of carefully safe-guarding patients who have passed through a very trying period at the time of labour, but desire merely to minimize the belief that trying labours are frequent elements in the causation. The whole puerperal period is one of more or less suppressed excitement, both physical and mental. There are many incidental anxieties, all the greater that the patient is often in a high-strung, nervous, sensitive, and susceptible state. Excitement may be induced by apparently innocent observations on the part of the doctor or nurse, because the patient is unable to cease worrying about trifles if she is of a nervous disposition. Trouble with the milk-supply, with the nipples, with the crying of the child, thought on family cares or household difficulties, upset the equilibrium much more easily than at ordinary times. Without enlarging further, it is enough to say that an unstable mental balance can be rendered more unstable by the slightest sensory disturbance.

By reason of their close anatomical relation with the higher brain centres, and their almost psychic functions, it will easily *a priori* be expected that the special senses may have much to answer for in the production of puerperal insanity. Their functions are inseparably associated with the mind, and the whole well-being of the organism depends so much upon the impressions which they receive that

their share in the causation should be clearly recognised. The ear takes in bad tidings, and at this critical period conducts noises intensely; the eye is open to distressing sights and exciting literature, and the functions of taste and smell are apt to be disordered. The nerve centres of special sense are hyper-æsthesic. The most usual excitements of this class are those affecting sight and hearing. One lady's temperature rose, and she became excited for twenty-four hours without inflammation, as a result of reading an exciting novel; and another puerperal patient, hearing outside the voice of a most unwelcome visitor, was similarly affected. One patient was upset by hearing 'a neighbours' row' on the stair, another by a quarrel between the husband and his mother-in-law. The perverted state of the nasal and oral secretions is apt to give rise to a bad smell and taste, which can readily be misinterpreted in the querulous and irritable state of the patient.

There is no doubt, whether due to cerebral anæmia or a toxæmic condition, the special senses quickly respond to the morbid condition of things, and the senses become extremely acute, so that hallucinations and illusions readily occur.

Many of the unfavourable sequelæ of labour are due to the unfortunate necessity for many poor women being out of bed on the third or fourth day, attending to their household, their husband and children. It is not surprising, therefore, that personal neglect should be the consequence, that the uterus should become the seat of disease, that chills and fevers are likely to attack the patient, and that when a week is over, if not sooner, a wretched state of the general health is the result, and the mental condition suffers accordingly. Yet many such women drag along their existence on the verge of insanity for weeks or months, and it is surprising how seldom they are so seriously affected as to require asylum treatment.

Premonitory Signs or Danger-signals.—A most important consideration is to understand what symptoms may be regarded as danger-signals in the puerperal state. In the first place we must learn all that can be known of the personal and family history of the patient, of her normal,

mental, and nervous character, and of the manner in which she has come through the pregnant state. There may occur during the end of labour a momentary excitement which is known as *mania transitoria*, usually appearing in the third stage of labour. This is an acute state of temporary frenzy, and passes off with the birth of the child; but when it does occur, although temporary, it must none the less be regarded as a danger-signal. Transitory attacks, with violent if not homicidal tendencies, may also occur a day or two later. The next signal of importance is sleeplessness. This is found in a great many cases to have been persistent from the time of childbirth, and to have had a serious influence in producing insanity. Another very important symptom is bad dreams. Fears and anxieties take hold of the mind; a very little matter, a casual remark, which at any other time would have no significance whatever, is seized on with morbid avidity, and influences the state of feeling of the patient, reappearing in the most grotesque form in her dreams. For this reason no unpleasant suggestions should be made in presence of nervous patients.

A further symptom which should be carefully noted is extreme restlessness and irritability. These might be reckoned of little account; but that is a mistake, because they are often the first signs of the coming storm. They are grave if attended with failures of memory and speech. In some cases we are made suspicious of coming mischief if the patient is the subject of an unaccountable dread, a vague nervous fear visible in the expression of the eye, often appearing during the fourth or fifth day, and a sign which must cause anxiety. This morbid fear is the fear of something about to happen, in some cases a fear that reason is giving way, and the patient about to lose her normal consciousness and self-control. The first sign of indifference to husband or child, or any relative to whom she was previously attached, should be regarded as unfavourable. Of physical signs there are many which may not lead to puerperal insanity; but in nervous cases they may, and ought to be taken note of. These are headaches, rigors, feverish attacks, acute diseases, and albumen in the urine. Careful attention to

the physical well-being of the patient is of the utmost importance.

Maniacal Form.

The Symptoms of the Fully-developed Attack. — Puerperal insanity may appear in any of three forms—mania, melancholia, or stupor. It may be said here in passing, and then the subject is dismissed for good, that general paralysis does appear, though it is extremely rare during pregnancy or the puerperal state. The old term applied to insanity at this period was puerperal mania. It was the only conception of the older writers on the subject, and it was so far justified in this, that mania is much the most common of the forms which this disease assumes. It is true that melancholia is by no means unknown, and it may be that some of the cases tabulated as melancholia by one writer would be tabulated as mania by another.

Be that as it may, true puerperal insanity, by which I mean insanity coming on within a month after labour, takes in the great majority of cases maniacal forms. In some cases it is a feverish, impulsive mania, a delirium which is rather suggestive of delirium tremens, except that it is not attended by tremor. In some instances the observer is reminded of the latter disease by an expression of nervous tension and anxiety, and an attitude of fear with efforts to escape, a transient or more persistent delirium, a wild, unkempt look, delusions of apprehensive character, and the presence of hallucinations of sight and hearing, all which may be observed in the same individual. Profane and indecent speech, erotic conduct, exposure of the person, were formerly described as almost invariable concomitants of the disease; but our experience is, and it is confirmed by Wiglesworth and others, that this certainly is not by any means constant, and may be often witnessed in cases without a history of parturition at all. The mind wanders, and it is difficult to arrest attention. In some always, and in others between the paroxysms, it may be possible to fix the attention; but in all cases brain action is feeble, and the mental result is trifling and childish.

Impulsiveness, sheer recklessness, mischievous impulsiveness, is a common feature of puerperal mania. This impulsiveness is rarely treacherous, and it is attended with a reckless indifference to consequences. It is frank, childish, good-natured, and comes often in unexpected paroxysms. At the same time, it may proceed from hallucinations, and as they are exceedingly common, the nurse should be ever on the outlook, and not trust her patient for a second. The excitement may be actually delirious, a state of raving incoherence, which, if we read between the lines, may yet have an unmistakable meaning. As a rule, however, the patient is not so incoherent as this; there are intervals of lucidity and paroxysms of excitement. Puerperal mania is frequently paroxysmal in its character, all the more so if it is correlated with distinct physical signs of disease. When it is less complicated in this way, it may be more continuous in its exhibitions, but in extreme cases, with hyperpyrexia, acute delirious mania may persist for weeks.

Hallucinations.—Hallucinations of the senses may be present, but the sensation of hearing is in addition particularly acute, and these patients seem to respond to the very faintest sounds, or to remarks spoken in a low tone, and not directly addressed to them. Their senses seem to be acutely receptive and continually on the alert, so that any slight disturbance seems to be an intense sensory stimulus. Hallucinations are almost invariably present in all cases, those of hearing and sight being most frequent; but hallucinations of the other senses are not uncommon. One patient would start suddenly as if she heard a sound, and call out, 'There, he is coming!' Another saw people trying to burn themselves, while a third experienced a smell of gas, and saw gas-meters coming in at the window.

Delusions.—Delusions may be ill formed and ill expressed, mere delirious expressions in feverish cases, or they may be of more serious omen, and be more or less persistent for a time. They are frequently exalted, and may at the same time be associated with ideas of persecution. One common delusion which has been observed by several writers on the subject is centred in the idea of maternity, and is rare in

other forms of insanity. It is that the patient is the Virgin Mary, or that someone else is. Thus, one patient asserted that her nurse was Mary, the Mother of God. Other delusions, variations of this, are that the patient's baby is Mary, called after the Virgin Mary, or that the patient herself is the wife of Christ. One woman talks frequently about the Virgin Mary, and says that her baby is to be called John, the beloved disciple. These and other examples which might be quoted illustrate the maternal basis of exalted religious delusions.

Exalted delusions refer also to other Bible characters, *e.g.*, Mother Eve, and the Queen of Sheba, though many have no scriptural connection at all. One lively young wife skipped about like a dancing-girl and called herself 'the daughter of the regiment,' and a patient much reduced from septicæmia, and the discharge from several abcesses, entertained the delusion that a large sum of money had been left to the institution. In one case the delusions were that the doctor was the Duke of Edinburgh, and the patient 'the lady of the house.' Delusions of persecution, abuse, and suspicion are quite consistent with the maniacal state. One patient declared that her sister-in-law had murdered her baby, that she had been abused and ill-treated, that she was a queen and the doctor a king. Another believed her father was murdered, and she was very dangerous to those nurses and patients who were the malevolent creatures of her delusions. Withal she believed herself to be a very great and titled lady.

Other delusions refer to the husband. One wife said he was a sinner, and lifted the poker to him. In some of these instances—and probably the melancholic form illustrates this best—there was some foundation for aversion to, if not delusions regarding the husband. Undoubtedly the sexual feeling is perverted in many cases. The law of action and reaction shows it in everyday life, not only in the extremes of sexual feeling, but in other extremes as well, and therefore we need not be surprised to find wives, to say the least, indifferent to their husbands, if not actually hating them.

Masturbation is not frequent, although this symptom has been made much of by some writers; indeed, it is difficult to understand how it should be on psychological grounds alone. When it is present, it is rather the result of peripheral irritation, and when this is attended to it usually ceases.

Delusions of identity are very prevalent: doctors and nurses have new names given to them, for the patient does not realize the changed condition of things. The people around the patient are usually recognised as being of great importance, and the names assigned to them, secular or religious, indicate the exalted bias of the patient.

Homicidal and Suicidal Propensities.—These are present separately or combined in at least a third of the cases, but I have not found them deliberate, vicious, or well directed as a rule. The most dangerous and most vicious attacks are on the husband especially, but sometimes also on the child. The suicidal propensity has, moreover, to be reckoned as quite a possible and impulsive symptom of the disease; but we must look for it in its really deliberate and purposive character in the melancholic form of the disease.

Pyromania.—A morbid impulse to burn things may be noticed in not a few puerperal cases. This symptom has not been referred to in the literature of the subject, so far as I am aware, but I have carefully investigated the subject, and ascertained beyond doubt its presence in some form or other in quite a number of cases of mania. In many cases the motive assigned was a bad smell, but in others it was a result of wanton mischief. Clothing, sheets, curtains, the patient's own apparel, were the articles usually burned. Hallucinations of smell, though sometimes associated with this symptom, were not detected in all the patients so disposed.

Stupor.—Nothing that exhibited a dissimilarity to stupor in general has come under my notice, and anything specific in the character of the disease is due to the puerperal history and associated physical conditions.

The chief cases of stupor in my experience were those following attacks of excitement. The state of stupor is usually preceded by a short attack of excitement, often hysterical in character, sometimes acutely maniacal, and

sometimes melancholic. Mentally there is want of vigour, a slowness in comprehending and answering questions, an expression of vacancy, and muscular flaccidity. Delusions may exist in the condition of stupor if of the melancholic form, but their presence is judged of by conduct rather than speech. The stupor does not endure long—that, at least, is my general experience. We have found it continue for some months in a few cases, but more often a few weeks, the eyes taking on expression, the muscles hardness, a quicker responsiveness appearing, for the reaction-time is accelerated, the appetite becoming better—though in the state of stupor some are voracious—and the patient beginning to take an interest in things and to engage in some employment.

Changed Affections and Sexual Delusions.—One peculiarity which runs through almost all cases, whether mania or melancholia, is the morbid distrust of the husband. This strong suspicion seems to be the most deeply-rooted of all the mental symptoms of puerperal insanity. I have known a patient, mentally sane in all other respects for months, still refuse to live with her husband, without any shadow of moral excuse whatever.

Melancholic Form.

Looking over the notes of the melancholic cases, I find no exception to this almost general rule which I have just stated; if anything, they were worse, and one and all suspected their husbands of improper intercourse with the nurses in charge of them. Such patients are often suspicious of the medicine and food, believing that they contain poison, whether given by the husband or by strangers. The suicidal element is often strong, and the act is frequently attempted. Delusions of a religious nature are the usual rule. One patient imagined the devil was inside of her; another declared that she was in hell, and that at night the devil came and put his clutches on her face, and that she heard his chains rattling (there was here a combination of delusions and hallucinations). Hallucinations are very common. One melancholic patient declared that she saw a dead woman sitting on her bed, and at another time that she saw men taking

her sister away in a cab. Although the melancholic is, as a rule, sanely conscious of many things, and usually coherent, there may be incidental flights of delirium in the course of the case, as in the following instance: A clot in the uterus gave rise to the delusion that another baby was coming; the patient got frightened, confused, and delirious; the clot came away, the calmer state returned.

Bodily Symptoms in all Forms.

These are very much in evidence in very many cases, and it is no exaggeration to say that on successful treatment of somatic conditions depends the cure of nearly every case of puerperal insanity.

The general appearance is very striking in by far the majority of those admitted with this disease. It is almost possible to diagnose the case as one of puerperal or lactational insanity at the outset. The only diseases that may appear to resemble it are delirium tremens or acute delirious mania. The eyes are generally sunken, with dark rings round them; the expression is haggard, the brows are contracted, and the general appearance is one of emaciation and exhaustion. I do not know why it should be so, but I have, in a long experience, after careful statistical inquiry, found brown eyes more frequently associated with this disease than blue or gray, although with the latter two, other forms of insanity are quite as frequently associated as with brown eyes, if not more so, and probably they are more common in the general population of this country. It is perhaps the case that in brown-eyed patients there is more nervous excitability, although mentally they may be as well balanced and self-controlled.

Lochia and Milk.—At or about the time of the onset of the mental attack, the lochia is usually scanty or suppressed, and unnaturally offensive; but in some cases it is profuse and very offensive. The milk is suppressed in a very large percentage, it is rarely plentiful; the state of the bowels was costive or obstinately costive in 70 or 80 per cent.; diarrhœa occurs rarely. Fæces are frequently dry, hard, and dark in colour; and rarely clay-coloured.

The Urine.—The urine has been examined with more than perfunctory interest since the late Sir James Simpson directed attention to the prevalence of albuminuria at the outbreak of puerperal insanity. That it has any causal relation is not now entertained, nor have I found any recent support which can confirm the view of Ludwig Hoche and others, that uræmia is an important cause (*Archiv für Psychiatrie und Nervenkrankheiten*, 1892). That an arrest of any of the renal secretions can account materially for the onset of the disease is an idea which is not now considered a likely explanation of the causation of puerperal insanity.

The urine is scanty in maniacal cases, and in all feverish conditions accompanying the disease. The lowest amount registered in twenty-four hours was 6 ounces, and this had to be drawn off. In seventeen cases carefully observed, the average total for twenty-four hours during the first three days' residence in the asylum was 16·6 ounces. These figures are all the more striking when we consider how frequently the skin was dry, the bowels constipated, and the various secretions diminished. Albumen is not found after the first few days, except there be renal disease; but it is frequent in its appearance at the onset of the attack, and perhaps when it is imminent, though of this latter I have no experience. Bile is rarely present, though the sallow appearance of the skin, and sometimes a saffron colour, might suggest its existence. Chlorides are diminished in all febrile states, and of course, where the quantities of liquor are so small, one naturally expects the solids to be diminished. The lowest record of urea excretion was 3·68 grammes in twenty-four hours, the average health quantity being from 30 to 40 grammes. The urine increases in quantity in a very few days, especially if the patient takes her food fairly well.

Visceral or Constitutional Complications.—Puerperal mania is often ushered in (especially among the poorer classes) by rigors, inflammation, or septicæmia. As to the diagnosis of septicæmia, it must be admitted that there is often a difficulty in making sure of a local and primary seat of infection, and particularly so when dealing with insane patients. For one thing, the cry of pain, or its absence, must not be implicitly

relied on. Patients' cries of pain are sometimes misleading; the mental equation must be taken into account. The bowels should be thoroughly evacuated before an attempt is made to settle the question. Even then the restlessness of the patient will disturb and distract attention, and as the septic lesion is often slight enough to elude the tactile sense, it may be missed altogether. Sudden rises of temperature, whether preceded by a chill or not, will often perplex the physician. They may be septicæmic, phthisical, zymotic, neurotic, or simply inflammatory, and they may refer purely to intestinal causes. Zymotic disease will soon settle the question, so far as it is concerned; and so will phthisis, unless it is of the insidious tubercular form. But the differential diagnosis of the others is not so easy; and in one case of periodic pyrexia, I had difficulty in deciding between hepato-intestinal disorder and septicæmia. It turned out to be the former.

Next in importance to septicæmia and its congeners is phthisis pulmonalis. Batty Tuke records three cases of death from phthisis out of seventy-three patients labouring under puerperal insanity, and the late Dr. Boyd reported two out of sixty-three. My number is three out of sixty. Bronchitis, pneumonia, and heart disease have, so far as my statistics go, been less frequent, but they are recorded. Mammary abscess was a complication of two cases of melancholia under my care. The abnormal conditions of the primæ viæ have been already referred to.

Rarely was a recent case admitted that did not exhibit uterine or allied symptoms of abnormal character, the most frequent being pain on pressure in the hypogastrium, and scanty, extremely offensive lochia. Precision of examination was not always possible; but if accuracy of diagnosis was not assured, the certainty of some form of uterine or allied disease was frequently established. Three cases studied post-mortem showed pelvic inflammation, and a dirty sloughy placenta site in a typhoid case. One patient who recovered had pelvic cellulitis; another retention of clots in the uterus, with high fever and deeply-seated pain in the right iliac region; while a third complained only of tenderness on pressure over the uterus. These are fair illustrations of many other cases

which might be quoted, and suffice to show the importance of attending to the condition of the uterus and other pelvic organs.

Ætiology.

I have already referred to the influence of heredity in the production of puerperal insanity, but there are more specific incidents which must not be overlooked, as they have a bearing on the prevention of the disease even where there is a hereditary indisposition. Mental depression during pregnancy, or as a result of causes appearing at or about the puerperal period, may be reckoned as an antecedent in some cases. There are often such moral causes as illegitimacy, desertion by the husband, bereavements, and so forth; insanitary conditions are very prejudicial, and of course there are many incidents of the puerperum which must have a depressing effect on the patient. To these may be added the injudicious attention of friends, too many visitors, and want of sleep. Septic absorption has been credited with being a considerable factor in the production of puerperal insanity. In some cases I have found septicæmia and insanity develop almost coincidentally, and except on the theory of direct nervous propagation, a reflex excitement propagated from the septic focus, it was difficult to prove the relations of cause and effect. In one series of cases it was evident that septic absorption appreciably preceded the mental outbreak; while in another series it was quite evident that the mental symptoms were pre-existent, and became intensified after the inception of the septic process. I have found scarlatina and typhoid associated with puerperal insanity, and in my experience the clinical phenomena of these respective exanthematous types were not accurately produced in either case. Alcohol is a blood poison which must be specially virulent in its action on the brain of puerperal patients. In the lower ranks of life, alcohol is a favourite prescription with the patient and her friends, and I have clear evidence of its influence in precipitating puerperal insanity in two cases. It is probable, however, that this craving and indulgence in some, if not in most, of the cases

was a symptom of dipsomania, and as such one of the first symptoms of puerperal insanity.

There are many acquired brain conditions which may precede and aid in developing puerperal insanity, and which might properly be dealt with here. Such are, for example, epilepsy, brain injury and meningitis; but as they have only a rare connection with puerperal insanity, they need not occupy further notice.

Prognosis.

The prognosis is usually good. The now classical aphorism of Gooch, that 'mania is more dangerous to life, and melancholia to reason,' is not borne out by later experience. I have found a very large proportion of cases of mania recover, and I have found melancholia in several cases associated with disease which led to a fatal termination. In a large experience of this disease, of which I have kept exhaustive records, I find the percentage of recoveries exceeds 80 per cent. A rapid pulse used to be regarded as of rather bad omen; but it is not necessarily so, neither is a high temperature, if it is not long continued. To gauge the gravity of a high pyrexia with greater precision, we must ascertain the average morning and evening temperature during the acute stage of the disease. Seeing that it is the pace that kills, we are led to inquire which cases exhibit *in toto* the highest temperatures and what is the result in these cases. It will be found, where the average temperature for several days is maintained at 102° or above it, the prognosis must be very grave. An average temperature of 101·5°, extending for a period of six weeks, was followed by recovery. If phthisis complicates the case, the prognosis is grave, for it appears to take on a somewhat acute form when intercurrent with the insanity of the puerperal state. Septicæmia is not necessarily a disease of bad omen, and I have had great satisfaction in the treatment of this condition. One patient had several large abscesses in the arms and thighs, and pelvic cellulitis, all of which were opened and treated with antiseptic rigor, with a very satisfactory result. It is only right however to admit that some of the cases of septicæmia were too

severe, of too typhoid a type, and too far removed from the reach of surgical treatment, to hold out much hope of recovery. Granted an excellent digestion, good staying power, a septicæmia coming within the surgeon's province, and the prognosis should be fairly good. Very rarely does the disease pass into a chronic condition of mania or dementia, unless there has been a previous history of mental disease or alcoholic indulgence.

Treatment.

It is clear from the foregoing facts that no simple and specific lines of treatment can be laid down, for there is an endless variety of feature presented by the disease. It is, therefore, desirable to classify in this connection according as one or more of the following morbid states gives a pronounced character to the disease. The fact that these may blend together with other abnormal states in one and the same patient is clearly understood, but they are now separately identified as being the conditions most frequently and urgently calling for specific attention.

1. *Digestive, Hepatic, and Intestinal Disorders.*—One patient was fed, owing to refusal of food, by the stomach-pump, with rare intermissions of voluntary alimentation, for eight weeks. The tongue and the roof of the mouth were coated with creamy fur, the lips were cyanotic and crusted, the saliva white and inspissated, often frothy, the pharynx relaxed, the stomach irritable, the fæces dry, dark or greenish, and slimy. Septicæmia with diaphragmatic and pleuritic deposits, and boils, complicated the case. She was fed liberally with custards (two eggs in each), beef-tea, milk, and whisky. Calomel, one grain *bis die*, and Acid. Nit. Mur. Dil., with Tr. Nucis Vomicæ, *ter die*, were administered, the calomel powders being intermitted at the end of three days, to be repeated as occasion suggested. Castor-oil was prescribed from time to time with good effect. Cod-liver-oil was given, and for a month she was under mild Bromide of Potassium treatment. *Result after three weeks*, during which occurred two moderate pyrexial crises: She still refused food; the tongue and mouth cleared up a little, and

then got heavily furred again; the appetite returned for a day only once, and she was getting so weak as to threaten collapse during feeding. Cod-liver-oil was stopped, then custards, then bromide, and last of all artificial feeding, but neither of these changes of treatment seemed to encourage a healthier state. The stomach was now evacuated from time to time to ascertain the progress of digestion, and after three and a half hours custards were withdrawn little altered in bulk or character from the hour of injection.

Her weight was now taken—6 stones 2 pounds (86 pounds)—the stomach was washed out with 1 in 500 carbolic lotion, and a diet scale arranged, to be pumped (after predigestion with Benger's liquid pepsine) at intervals of four hours four times a day. The diet was thus prepared: 8 a.m., ¾ pint milk, with one egg as a custard; 12 noon, ¾ pint beef-tea, with finely-grated potato in suspension; 4 p.m., custard as at 8 a.m.; 8 p.m., ¾ pint milk gruel; 2 ounces whisky were given in twenty-four hours. No medicines given. She lost 5 pounds in the first week. Bismuth was now prescribed, and a combination of the bromides of potassium and ammonium. Up to this time food regurgitated in an undigested state on introduction of tube, hence the bismuth treatment. At the end of the second week she had lost 4 pounds, and seemed on the whole better under bis-bromide combination; but at the end of the third week this was given up, as lips and tongue were becoming more dry, and a copious rash had appeared. The pyrexial crises were less marked during these three weeks.

At the end of the third week the weight was stationary. The tri-bromide combination of potassium, sodium and ammonia was tried, and suffered a like fate with its predecessors. At the end of the fourth week the weight was still stationary. She complained of diaphragmatic pain in the left side, and had a short troublesome cough at the end of the fifth week, with the highest temperature yet reached (over 103° for two days and three nights). Eructations and regurgitation of food had not been troublesome for some days, but the secretions were very scanty, and the tongue and lips were dry, so that the bromides were stopped.

At the end of the seventh week her weight was 5 stones 6 pounds, and she had lost 1 pound. Later, with apparently more gratifying effect, Carnick's peptonized cod-liver-oil and milk were tried; but this might have been a case of *post hoc*. I judged at this time that, although the 'turn of the scale' had not been reached, she was stronger, less limp in our hands, and less cyanotic during the artificial feeding. It ought to be stated that the method of alimentation was by means of the soft oral tube, that four nurses were at hand, each trained to a particular duty, and that, from the first handling to the last, the time occupied was less than a minute. If I had such a case again, I would try nutrient and stimulant enemata as well, and give the upper digestive tract less work and irritation.

From this period onwards she slowly recovered; she began to take her food herself, but in very small quantities compared with what had been injected into the stomach hitherto, sufficient, however, to turn the scale. Soon she was able, the weather being propitious, to go out into the open air, and in two months had risen from 5 stones 6 pounds to 6 stones 9 pounds. She was of phthisical habit, had not menstruated three months after recovery, and her doctor then wrote me that she was under treatment at home 'with rusty sputum and dulness over left lung.'

2. *Uterine and Hæmic Treatment.*—Intra-uterine and vaginal injections often do good. To soothe is to reduce excitement and promote sleep, and uterine medication may have a more direct and salutary influence on the mental condition than has been suspected. Direct uterine injection will probably be found more serviceable than mere vaginal irrigation where there is fever and local distress with signs or threatenings of septicæmia. Superficial evidence of septicæmia was found in abscesses, boils, scalp deposits often resembling wens, and a copious pustular acne. It is unnecessary to linger over their appropriate treatment.

Constitutional means may be employed in two directions: (*a*) to increase nutritive processes, (*b*) to arrest fermentation. The first of these has already been discussed, and in addition to its more immediate purpose of bringing up nutrition to its

normal standard, it exercises a double purpose in septicæmia by also increasing physiological resistance to degenerative change. If it be admitted that septicæmia has in the present instance a wider meaning than that of a mere germ disease; if it be accepted that it may arise from the diffusion through the *primæ viæ* into the blood of putrid gases, or from retained and decomposing excreta within the bloodvessels absorbed from puerperal disintegrations, or from the retention and accumulation of the elements of secretions, then the question is one not only of germicide but depurative treatment. That septic absorption may, secondarily, carry in its train the absorption of lesser impurities, and by secondary deposits induce local and constitutional changes enough to account for a heterogeneous septicæmia such as I have described, is possibly or approximately true; but local absorption does not always take place, and secondary deposits more rarely still. Septicæmia has many grades, and often tapers into the finest and least nocuous attenuations; yet we still have evidences of grave blood impurity arising manifestly from the sources above indicated, these being primary and independent of septic absorption.

The treatment of anæmia, so far as it may be regarded as specific, was confined in recent and extreme cases to either enemata of defibrinated blood (*vide* article in *Lancet*, by Sansom, vol. i., 1881) or Blaud's pills. The treatment of the more chronic forms was chiefly by means of arsenic and iron. Defibrinated blood is undoubtedly of value, especially where the anæmic state has been induced suddenly and intensely.

3. *Hysteria.*—In one patient a quick recovery followed purgative treatment; in another this had no prominent effect, and a definite and satisfactory result followed the exhibition of bromide of potassium (45 grains) every four hours. Copious diuresis soon followed, and in three weeks the patient was convalescent. I had hoped to find in bromide treatment something specific for the hysteric group, but the cases are often too asthenic, and my one good result was exceptional. Certain hysterical cases will probably benefit in this way, but there must be no flaccidity or inertia; rather, there must

be acute excitement, distinct nervous tension and response to reflex stimuli.

4. *Mania.* — A moment's consideration of the somatic relations of puerperal insanity will suffice to show that there is no cutting of the Gordian knot by means of neurotic remedies, unless in exceptional cases where the disease has been anticipated. The whole mass of evidence before us leads to the conclusion that treatment must be of a varied character. In the case of A. B.: morphia was administered in the form of ½ grain suppositories every eight hours, with gastro-intestinal correctives. It reduced the muscular excitement, moderated the mental *furore*, did not arrest the cutaneous secretion nor diminish appetite, and at first seemed to induce a return to mental stability and coherence. Soon the mental habit acquired a new phase. Previously it was eccentric, impulsive, explosive, irrelevant, invertebrate. Good nature and playfulness gave place to sullen obstinacy and dogged antipathies; suspicions and delusions of persecution, hitherto fleeting and superficial, became more deeply rooted and intensified.

The last entry in the case-book regarding this patient, after a long interval, is as follows: 'She still manifests strong antipathies to all the nurses, and has not a good word to say of anyone. She is a sour, cross-grained woman, and yet the shadow of a smile betrays that she is—even at her worst—not so severe as she would have us believe. The morphia treatment does not seem to have been successful. It has prolonged and altered the morbid habit, rendering her less facile and amenable, easily put out, discontented, never satisfied, and decidedly cranky; otherwise she is coherent, knows what she is about, has no definite delusions, and will probably do well at home. Three weeks later she was discharged, considerably subdued, and remained out for several years. In another case the suppositories were given every eight hours, with like sudden recovery, but followed by a relapse to a worse state. She did and said silly, childish things. She evinced a strong animus to nurses, and on every occasion took the part of the patients against the nurses, believing that the latter invariably abused them.

Morally she was utterly depraved in her ideas; her conceptions of right and wrong were of the lowest character. By-and-by she seemed, after a close study for some weeks, to be free from delusions, when suddenly she expressed the delusion that she was married. Premonitory epistaxis ushered in menstruation, and after a long interval she gradually recovered. I have since discarded morphia, for the recoveries were not so complete as they might probably have been otherwise, and convalescence was much more tedious than in our usual experience.

The effects of chloral have been noticed where this treatment was pursued prior to the patients coming under our care. It has usually suspended morbid action temporarily, and even induced a saner perception of surroundings, delusions of identity of persons and place having vanished for a time, and a pause being marked in the course of the excitement—an ominous pause, however, for the mental excitement became greater than before. A combination of Bromide of Potassium, 25 grains, with 20 of Chloral Hydrate, I have used as a hypnotic to ward off exhaustion from prolonged mental excitement and insomnia, and its effect—a good one in itself—has been, after two or three exhibitions, to restore the periodicity of sleep. As to any specific action on the mental state, I fear this combination has none; but it is a safer hypnotic and sedative than either of the others.

5. *Melancholia.*—Morphia was given in one case of melancholia—the Liq. Morph. Mur., 10 minims four times a day for three weeks. The appetite, which had not been good before, got worse; she refused food, and the mental symptoms became intensified. The skin was all along dry, and the bowels costive. At the commencement of morphia treatment a pill was prescribed as follows:

℞ Ext. nucis vom. } ana gr. $\frac{1}{8}$.
Ext. belladon. }
Ferri sulph., gr. $\frac{1}{4}$.
Pil. coloc. et hyoscy., gr. i.
Pill mas., q.s.
Sig.: One or more daily as directed.

As with mania so with melancholia: there is no fixed course of neurotic treatment. The brain nutrition is below par, and neurotic drugs are not brain nutrients. Till nutrition is restored to the normal standard, there cannot be normal function, and a course of neurotic treatment in many cases is decidedly mischievous. In conclusion, let me observe that I prescribe: (1) The open air, with a degree of exercise suited to the strength of the patient, when the weather is agreeable or the walks sheltered, where there is no serious complication and the patient will not lie in bed; (2) a private room with a nurse to herself, when she keeps in bed, is weak and exhausted, and suffers from pyrexia, septicæmia, or active inflammatory disease; (3) above all things, the utmost quiet and isolation, for the nervous system is high-strung, the senses are most acute, and intolerant of the slightest disturbance. Every scrap of conversation is suggestive to an excited puerperal patient, every strange sight or sound has a personal meaning, therefore the less suggestiveness there is the better. This is the sedative treatment *par excellence*. The state of the bowels and digestion are of the very first importance; but in their treatment no uniform plan can be laid down, for in these respects each case is very much a law unto itself. Several useful indications have been already stated which will serve as guides for different classes.

CHAPTER XVI.

PUERPERAL AND ALLIED INSANITIES (continued)—INSANITY OF LACTATION.

When does a patient come under the category of lactational cases?—Different views on the subject—Frequency of this form of insanity more noticeable among the poorer classes — Ætiology — Mental symptoms—Features peculiar to the melancholic form, and those peculiar to the maniacal form—Physical conditions—Prognosis—Treatment—Clinical illustrations of insanity of pregnancy—Puerperal insanity and insanity of lactation.

DISCREPANCIES may be found in some of the descriptions given to this type of the puerperal series, more even than the others, especially in general text-books. Playfair says that 'the symptoms of these various forms of insanity are practically the same as in the non-pregnant state.' Others see very little difference between puerperal insanity and insanity of lactation. The fact is that early lactation cases do not exhibit the marked individuality of later cases. Whilst it is true of puerperal as well as of lactational insanity, that exceptions to rule are by no means infrequent, it may still be laid down as a general rule that puerperal cases are usually puerile in mental character, and lactation cases virile. One difficulty in dealing with the subject is to be found in the following question: 'When is insanity occurring after child-birth no longer to be regarded as puerperal, and how soon may we classify a case as one of insanity of lactation? If a month or six weeks is to be the limit for the appearance of what we call puerperal insanity, is a case occurring in the fifth or seventh week to be described as one of insanity of lactation? Clouston gives six weeks as the technical limit for puerperal insanity, Tuke fixes it at a month, and others at three months. Now, when we consider

that out of twenty-three of Clouston's cases seventeen became insane inside six months, and 51 per cent. of Tuke's cases occurred after the ninth month, it is not surprising if a discrepancy in the mental character of these two series should be observed.

Dr. Tuke allows two months for debatable cases which may conform either to the puerperal or lactational types. We must distinguish between cases where the exhausting influence of lactation is the preponderating cause and those where the depressing effects of parturient and puerperal conditions are still maintained. I proposed some years ago at the Glasgow meeting of the British Medical Association that 'a post-puerperal period of two or three months should be allowed for mixed or uncertain cases.' Where for a series of years there is one unbroken chain of pregnancy, parturition, puerperium, and lactation without any recuperative pause, the period which precipitates an attack of insanity is only the last straw.

Frequency.—Among the opulent classes insanity of lactation is not so frequent as in the lower ranks of life, for obvious reasons; but among the poorer classes it is certainly as common, perhaps more frequent than puerperal insanity. This statement may be qualified by a reference to Tuke's statistics, which give the preponderance to puerperal insanity; but it is questionable if puerperal insanity is as frequent as it was during the period—thirty to forty years ago—covered by these statistics. The great advances in treatment (antisepsis, cleanliness, skilled medical attendance, etc.) have diminished the risks of childbirth considerably.

Ætiology.

The predisposition to this form of mental attack may be a legacy of the puerperal state. True it is that many undertake nursing with an eager maternal desire, who should be strongly dissuaded or firmly obstructed in their attempts to do so. These are frequently the women who break down. Another group is that numerous set in the poorer walks of life who seem to be pregnant or nursing mothers all the time, who toil and moil all their married life through; while

a third class is of the over-lactation species, suckling to prevent conception, which is ruinous for mother and child. It is quite a usual experience to admit cases who have suckled for sixteen, eighteen, and twenty months. Two special depressants must be clearly recognised — the exhausting drain, and what Savage lays particular stress on, the act of weaning itself. The latter is often a worrying and nervously distressing process; the child will not give up the breast, and the mother is sometimes driven frantic between two courses—to yield or to persevere. Whatever the moral or physical explanation, the fact remains that bodily exhaustion, anæmia, and it may be some intercurrent local disease, is usually the prelude to the mental outbreak. In my experience mammary abscess is rare, even in those who have so suffered in this way before.

The Character of the Mental Outbreak.

Usually it is either melancholic or maniacal, the former being more prevalent, in this respect differing from the puerperal period. Stupor is sometimes present, but it is quite infrequent. Mania and melancholia have many symptoms in common, physical and mental; the two are here described together to begin with, and the differences will be noted later on.

In either case it is noticed that the attack is more masterful, persistent, and purposive in character than the excitement of the puerperal forms. The same hatred of the husband, less explosive and effervescent, more persistent, malignant, and unforgetting, is seen to affect the whole character and conduct of the woman. The child's life is often in danger, and as much so in the hands of the melancholic as in the maniac, but for different reasons. The latter acts from delusion or illusion, the former from fear and hallucination; whilst the melancholic is not afraid to destroy herself, she dreads to leave a living child behind her. She may, however, take its life, in obedience to a commanding voice (hallucination). Sometimes it is difficult to say whether the case is purely melancholic, for the fierce, relentless passion of some such women is more maniacal in its fury than anything else.

Hallucinations. — These are usually of hearing or sight. The patient hears her children's voices somewhere in the asylum, hears her mother and friends upstairs, or hears voices accusing her. One woman heard the devil's voice telling her to destroy her child. Hallucinations of sight are very common, as the following extracts show: 'She sees fish and pigs in the room,' 'sees figures moving about her bed,' 'sees wasps in bed, and a little child sitting in a corner of the ceiling.' Illusions are found, though more rarely. One patient hugged the pillow to her breast, and said it was her baby.

Homicidal and Suicidal Impulses.—One patient described a feeling as if her inside would burst, and said that if she could only get someone killed she would be relieved. A patient (maniacal) acted King Herod, with her child in one hand and a knife in the other; she was secured in time. The husband is frequently attacked, and one woman bit her husband's thumb severely, and struck her sister with a poker. Attempts at self-destruction are always to be looked for, especially in the melancholic state, and violence may be done to the children.

The excitement is sometimes paroxysmal, often very intense and oblivious, the patient being carried away beyond herself into a state of fury, sometimes of insane rage, masterful and irresponsible. In a few cases it may be hysterical, violent, noisy, declamatory, but with apparent self-consciousness, as seen by the roving, restless eye, which all the time looks knowing, or by other sensory evidence, and by the purposive evidence of conduct and mental symptoms generally. In one the breathing on medical examination was hysterical and sobbing in character, the pulse 120, without fever, and the patient's urine had to be drawn off after nineteen and a half hours.

The bodily health, as previously indicated, is impaired. *Various abnormal sensations* are common. One lady spoke of a rush going to her head, and then all was darkness. Another had a feeling as if part of her body was falling out of her. A third, when menstruation came on, had a feeling as if her head were growing larger and her nose rising. Flushing after meals is noticeable, and, indeed, the state of

the vascular system and its contents is at the root of many strange sensations, and its irregularities of supply will account for much that otherwise would be incomprehensible. One patient who was most sudden in her movements, violent and wildly excited, while in a warm bath was restored to reason for the time being, realized her position, spoke sensibly, and a few minutes after she was taken out of the bath became as wild and excited as ever.

As might be expected, headache is sometimes complained of, but usually in lucid pauses, or when convalescence is coming on. It may be in the frontal region or elsewhere, often on the top of the head. I have noticed occasionally that lactation patients are liable to suffer from bronchial catarrh and from rheumatic pains, with tenderness on pressure, especially over the joints, which in some instances are red and swollen. It has struck me as interesting that rheumatic affections should be associated with excessive lactation, and an examination of the skin in a few of my patients revealed a profuse acid perspiration, which changed blue litmus to a red colour. Further, we have observed that salicylate of soda or other alkaline treatment gave relief in many cases. One of my patients had rheumatic fever previous to lactation. Savage mentions rheumatism in one of the two cases recorded in his book, but many are so slightly affected as almost to pass unnoticed, and considering that the lactic acid theory of the blood condition in rheumatism has not yet received its *quietus*, these cases are interesting. That there is a specially susceptible constitution at such times is very probably true, and the conditions favourable for rheumatism to prey on them are present in many cases where the mother is not in affluent circumstances.

Anæmia is, however, the constitutional state which calls for most attention, and it is the morbid condition which explains many of the sensory and other phenomena of this disease. The pallor of these cases and the emaciated, impoverished state are striking, and hæmic murmurs are almost invariably constant in those instances where prolonged lactation has been the rule.

Features special to Melancholia.—There is, of course, mental

depression, often great excitement and intense fear and anxiety. The delusions and their persistence are very suggestive of the persecution stage of chronic progressive delusional insanity. They give evidence *ad libitum* of the morbid trend of the patient's thoughts. She is thinking about herself, and often about her baby. They are the sufferers, and others are the persecutors. One patient's delusions were that her sister had destroyed her child, and that other people had put dirt in her skin. A second said that she was 'dissected and confugled by a set of maidens,' while a third refused food under the delusion that it was poisoned. Some cases are quiet, and moan and groan in a subdued way to themselves; but the tendency to paroxysmal outbreaks, and to suicide or homicide, must always be kept in mind, even with apparently quiet cases.

Features special to Mania.—These are much more characteristic, and just as melancholia suggests one stage—obsession of persecution — in chronic progressive insanity, mania suggests a subsequent stage—megalomania, the grandiose stage. Delusions of identity are common, and the doctors are usually exalted on a high pedestal by deluded lactomaniacs, themselves occupying an equally exalted pedestal near him. In one instance the delusions were that the doctor was the Marquis of Lorne, and the patient Lady Hastings, his *fiancée*. Another declares herself a Duchess, denies that she has a husband or children, and makes affectedly shy overtures to the doctor, whom she believes to be a Prince. This lady is very unsociable, haughty, disdainful, and her hauteur of manner is magnificent. She is handsome, her carriage is naturally dignified, and a vain conceit runs through all her actions.

These patients entertain strong dislikes of particular individuals, their friends and the nurses in attendance, and the striking fact about these dislikes is that they are usually insane prejudices of the most intolerant description, and that they are nursed from day to day, and give rein to very violent and malignant attacks upon their victims. Lactomaniacs are impatient of control; their exalted delusions are not without a backbone of character behind them, being in

this respect very different from the chimerical morbid fancies of some other insane people. In their own estimation they are persons of importance, and they command submission from those around them. Hence they fight against the discipline of the sick-room or hospital ward, and refuse to be coaxed or coerced into any line of conduct that does not fall in with their own conception of the fitness of things. They often affect a shyness in the presence of the male sex.

One other characteristic of some of these maniacal cases is that they may combine exaltation at one period with the most reckless, obscure, and degraded conduct at another. As a rule, however, the maniacal type takes one or other form. In this latter condition all sense of decency is thrown to the winds, the patient breaks out in reckless abandon, lies down and kicks, is very indecent in manner and conduct, and obscene in speech. She may be wickedly mischievous and destructive, and her freaks of mad impulse often end in the wreckage of everything around her.

Prognosis.

The prognosis of insanity of lactation is good. Clouston's recovery rate is 77·5 per cent., and I should judge from my experience that this is near the average results obtained. Elsewhere it is said by some that recovery takes place early, but my experience does not bear this out both as regards maniacal and melancholic cases. One of the latter was insane two years. One thing is certain, that in not a few cases aversion to the husband is entertained for a long time. Many are so much run down that the building-up process, the restoration of the blood and bodily condition to par, is a question of a long time ; but the prognosis in general is very favourable. The death rate is lower for lactation cases than it is for the puerperals.

Treatment.

It need scarcely be said that blood tonics are of the first importance. Iron may be prescribed in the form that seems to the doctor in attendance most indicated. The syrup of the Hydrobromates of Quinine and Iron (Fletcher's), with or without Liq. Arsen. Hydrochlor., is a very useful preparation,

and seems to have a specially tonic and sedative influence. The refusal of food may be as much due to atonic dyspepsia as to delusions, and it may be necessary to prescribe digestive stimulants and other aids in such cases. In many of our patients porter is well borne, and has a sedative as well as nutritive effect; but, as a rule, alcohol in any other form during the acute stage of the disease is contra-indicated unless a typhoid state supervenes. In anæmic states generally, the tendency is to constipation, and in these patients anæmia is a common complaint. It is well, therefore, to have strict attention paid to the alvine evacuations. Such patients may require hospital treatment, and have to be kept in bed, especially if the breasts are troublesome; but, as a rule, it is found possible to exercise them a great deal in the open air with less restraint than if they were confined within four walls all the time. This assists Nature's recuperative efforts and the tonic treatment of the case, and is therefore much more likely to procure sleep.

Discipline in the maniacal cases is difficult to attain, and here great tact is called for. If such cases can be induced to engage in active employment, something that makes a real call on the muscular energies, a great advance is made in the treatment of the patient, the paroxysms of excitement are kept well under control, and more sleep is obtained. In the treatment of melancholic cases, it need scarcely be repeated that active occupation is of no less importance. It is the only thing to keep them from brooding over their fancied wrongs.

Clinical Illustrations.

INSANITY OF PREGNANCY.

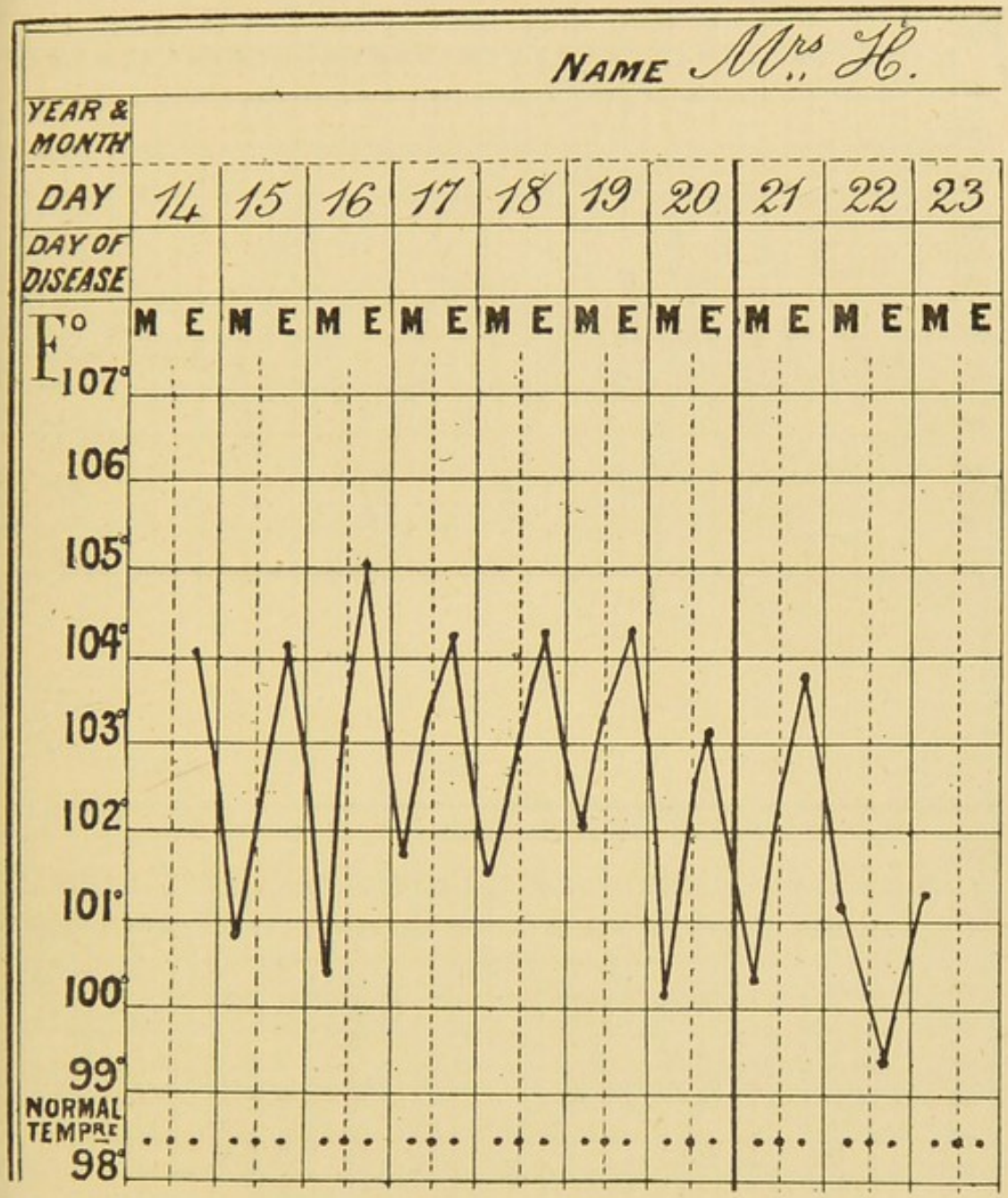
I. Pregnancy, Second Month; Suicidal Impulse; Fracture of Pelvis; Abortion; Recovery.

Mrs. T. B. was a young woman, aged 21, whose insanity appeared suddenly, and who leaped from a four-story window while in a state of frenzy. On admission to the infirmary she was found to have sustained a fracture of the pelvis and a lacerated wound on the forehead. No other fracture was detected. There was some discharge of blood from the

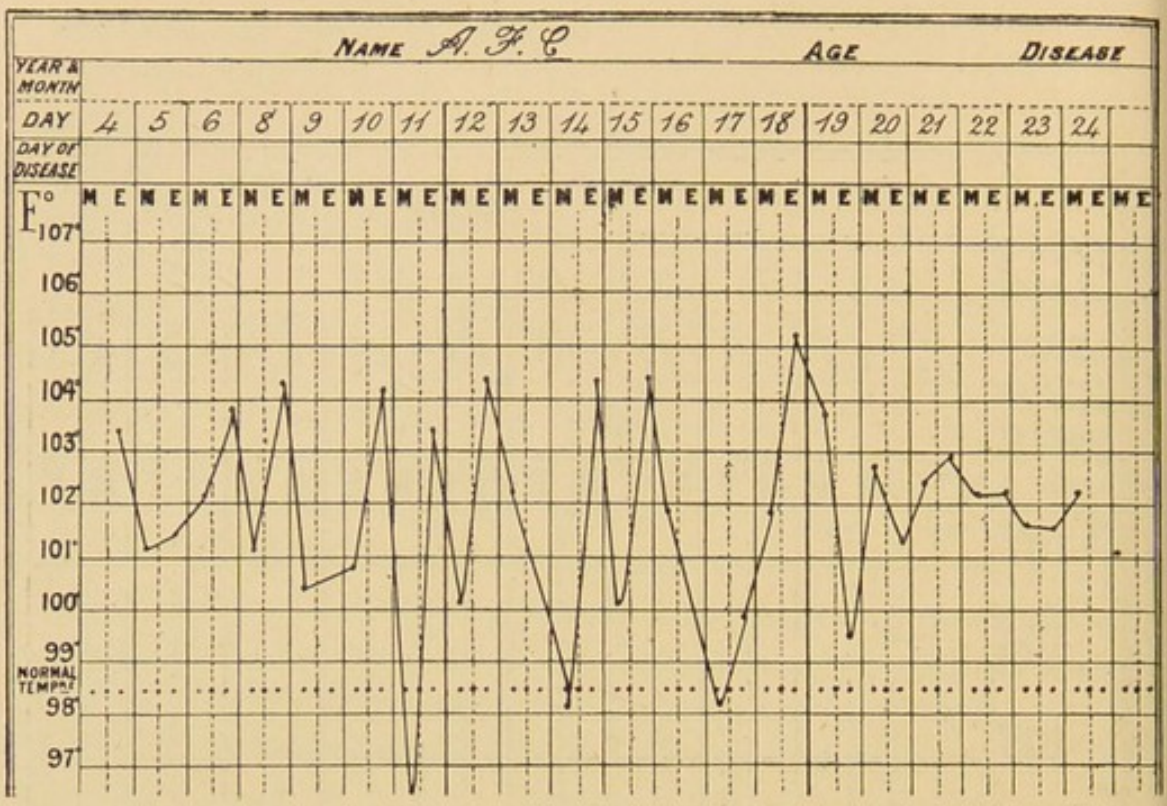
vagina. On passing a catheter into the bladder, a quantity of bloody urine was drawn off; the catheter also was found to impinge on loose bone. Eight hours afterwards she aborted, apparently in the second month. During the night she was very restless, and annoyed the patients so much that she had to be sent to the asylum. On admission to the asylum her mental condition was as follows: She talked in a confused, rambling way, said she had a vision the previous night, when wide awake, of a woman and child beside her. She was very unhappy, and could not throw off the feeling. She had no recollection of coming to the infirmary, and could not realize why she was there at all. She refused food, and had to be fed artificially. As she recovered from her injuries and gained strength, her mind improved, and she recovered; but very little explanation of her suicidal attempt could be obtained, beyond a vague recollection, like a horrible dream, probably a hallucination of sight.

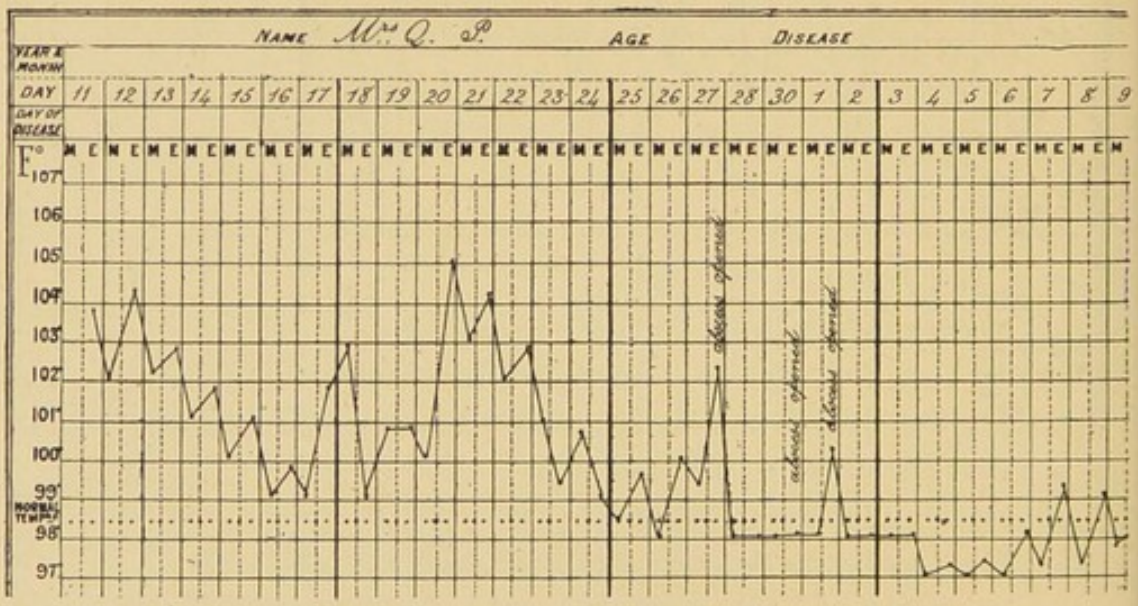
II. Unhappy Marriage made against the wishes of friends, with a man who was found to have married under an assumed name, and to be a deserter from the army; Melancholia, Suspicion, Irritability, Impulsiveness, Recovery.

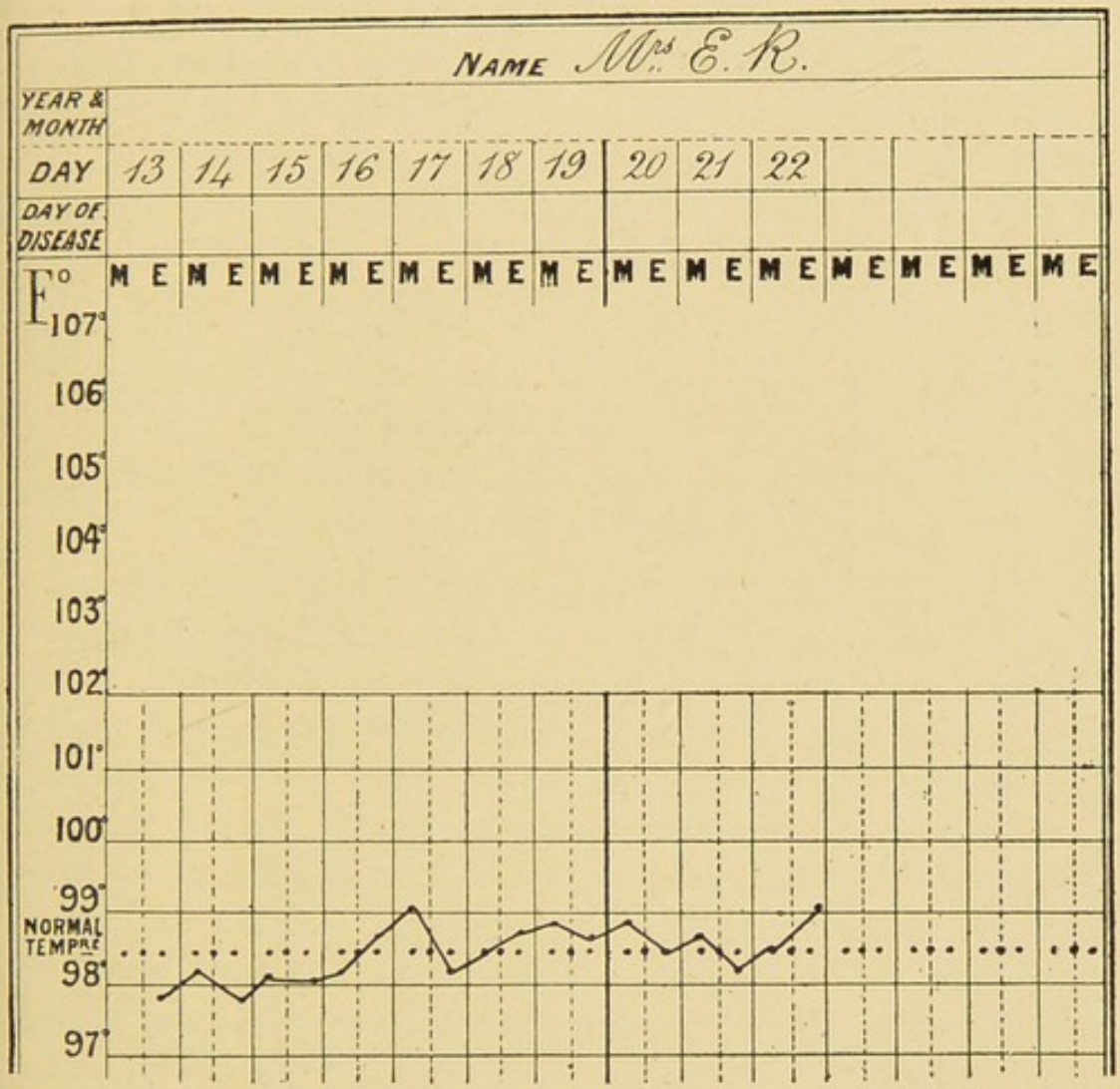
Mrs. J. B. C., aged 20, insane six days on admission; first pregnancy, fifth month. This woman was anæmic and pale; she had an unhappy, miserable, ill-natured expression, was most taciturn, could not be got to engage in conversation. She was unsociable and exceedingly disagreeable. She was evidently labouring under severe depression, and there was evidence of morbid resentment of anything said or done for her. She was subject to several hallucinations and delusions; she was in the habit of spitting a good deal on the floor because of a bad taste in her mouth, which she said was due to poison. She had the hallucination that she heard her husband's voice on the other side of the door. She was under the delusion that people were outside, and evidently was suspicious as to their purpose. Certain articles of diet she would not touch, such as bread, believing it to be poisoned. She refused food so deliberately that she had to be fed artificially. She was under some delusion regarding the doctor. At a later date


NAME Mrs H.
YEAR & MONTH
DAY
14
15
16
17
18
19
20
21
22
23
DAY OF DISEASE
M E M E M E M E M E M E M E M E M E M E
F°
107°
106°
105°
104°
103°
102°
101°
100°
99°
NORMAL TEMPRE
98°

To face p. 349.


NAME A. F. C
AGE
DISEASE
YEAR & MONTH
DAY
4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
DAY OF DISEASE
F°
107
106
105
104
103
102
101
100
99
NORMAL TEMPT
98
97


NAME Mrs Q. P.
AGE
DISEASE
YEAR & MONTH
DAY
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 30 1 2 3 4 5 6 7 8 9
DAY OF DISEASE
F°
107
106
105
104
103
102
101
100
99
NORMAL TEMPT
98
97
abscess opened
abscess opened
abscess opened


NAME Mrs E. R.
YEAR & MONTH
DAY 13 14 15 16 17 18 19 20 21 22
DAY OF DISEASE
M E M E M E M E M E M E M E M E M E M E
F°
107°
106°
105°
104°
103°
102°
101°
100°
99°
NORMAL TEMPRE
98°
97°

the explanation was that she believed him to have been her enemy from the first, and that he, instead of trying to cure her of brain-fever, was making her worse. The only history obtained at the outset was that of her marriage, against the wishes of her friends, with a stranger who had come to the neighbourhood, and of whom she knew nothing. Her husband came to see her, and seemed of a low type. It turned out later that he had been a deserter, and had married her under an assumed name. The fact of this discovery, combined with the reproaches of her friends, upset her so much that she became insane. For several months she remained in the asylum; but before the birth of her child she quite recovered, though she still was rather depressed on account of her unfortunate marriage.

PUERPERAL INSANITY.

III. Melancholia: Multipara, Religious Delusions of Depressing Character; Acute Phthisis, Death.

Mrs. H. C. This was the case of a refined, intelligent lady of distinctly nervous diathesis, of a naturally religious disposition, who was exceedingly sensitive, and had been depressed for several months owing to the death of a favourite child. Her child-bearing history had no unfavourable incidents. As to her present illness, the first thing noticed was that she made disparaging remarks about her husband after the birth of her last child. A few days later she turned against the child itself, and still later took a dislike to all her children. Sleeping-draughts were of no avail. She had suffered for some months from a trouble in her throat, ascribed by the doctor to ulceration of the vocal cords. On admission the following observations were made: The patient was of average size, but reduced in condition, of dark complexion, weighed 8 stones; the temperature was 104°. Mentally there was considerable activity, especially on religious subjects, and an expression of anxiety was depicted on her countenance. Her ideas, to which she freely gave expression, showed that the bent of her thoughts was in a melancholic direction. Her whole mind seemed absorbed with two great ideas—

the prospect of her near demise, and the relation in which she stood to her Maker. The attention was easily fixed, and she was evidently a person of superior intelligence; the features were delicately chiselled, regular, and refined; the eyes bright and black, and the whole appearance that of a highly nervous temperament combined with a tubercular diathesis.

The pulse was 132, small and weak, the heart-sounds apparently normal, but the action was too rapid for accurate auscultation. Respiration 30, shallow and not distressing; frequent loose cough with muco-purulent sputum; harsh and sonorous râles heard over the chest, but especially over the right side; the very slightest impairment of percussion could be detected there. The lochial discharge was profuse, greenish, and very offensive; the urine was abundant and slightly albuminous. The mental symptoms subsided somewhat, but now and again she had periods of excitement in which she cried out, wringing her hands and looking frightened, that she was lost, that the devil was hunting her, and that she could see him. It was a curious fact that, in spite of this depression, in spite of the conclusion that was forced upon us that her whole being was shaken over the religious question of her salvation, and her great mental anxiety, one worldly passion still remained, shown in her perverted, suspicious nature, for she could not bear for a moment that a word should pass between her husband and the nurse, of whom she was intensely jealous when the husband was present. Her illness proceeded rapidly to a fatal close; and death ensued at the end of the fourth week.

IV. Acute Delirious Mania: Primipara; Illegitimacy; Acute Phthisis, Death.

A. F. C. This was the case of a young woman, aged 26, a weaver, unmarried, who had been very careless about her health during pregnancy, perhaps from mental causes, and had suffered from cough during the previous winter. Her labour was natural, but the milk was suppressed, and the lochial discharge had an extremely offensive odour. The first mental change was observed within twenty-four hours after the child's

birth. She took little notice of her baby, did not appear to recognise it as hers, and evidently the maternal instinct was wanting. On admission she presented a tall, dark and swarthy appearance, with bright black eyes, and was extremely wild and delirious. In her delirium she repeated herself, phrase after phrase the same, and there was a sarcastic tone running through it all. She would talk nonsensically and irrelevantly in answer to questions; her delusions were numerous and fleeting, but they were evidently exalted in character. The pulse was 144 and small, and it was observed that there was moderate dulness on percussion at the left apex, and the heart-sounds were propagated clearly to this spot. Her nights and days were characterized by one continuous state of restless, noisy, delirious excitement. She was persistently endeavouring to get out of bed, tossing the bedclothes, indecent in manner and conversation, and all the time talking and raving incoherently. She suffered from diarrhœa; the stools were fœtid; the vaginal examination later revealed no sign of tenderness, but pressure over the uterus gave indication of pain. The appetite was capricious. She was extremely thirsty, and, like many puerperals, would drink large quantities of buttermilk. She had hallucinations of sight, smell, and hearing. She saw and heard her father, etc., and she seemed to see imaginary things, *e.g.*, silver floating in the air; she said she could smell chloroform, vitriol, and sulphur on the bedclothes. She died three weeks after admission, and post-mortem examination confirmed the diagnosis of phthisis.

V. Acute Mania: Multipara; Septicæmia, Pelvic Cellulitis, Recovery.

Mrs. Q. P. This case, though also a very severe one, after much work and anxiety was pulled through. Her age was twenty-six; she had been insane two weeks before admission; she had had seven children; all the labours were natural until the last, when she had twins, and was at first attended by a midwife, who introduced her hand into the uterus. One of the twins was stillborn, and the patient was partially unconscious during the latter part of labour.

There was a good deal of hæmorrhage; the lochial discharge stopped on the seventh day. Milk was plentiful all the time. The patient was sleepless from the first after-labour, and got sleeping-draughts. She gradually became excited, singing and crying by turns, and was very unmanageable; she suffered from pelvic inflammation after the birth of the children.

On admission she was bright and lively, extremely pale and anæmic. Mentally there was considerable exaltation, as evidenced by her bright, animated expression, her happy, boisterous, devil-may-care manner, and the nature of the delusions. She was extremely excited, but her incoherence was not so extreme as in the previous case. Her memory could not be tested by interrogation owing to her excitement and waywardness, but, judging from her spontaneous speech, it seemed acute. The delusions were numerous, and usually fleeting. There was a rise and fall in her mental excitement, sudden outbursts which just as suddenly subsided. It was mischievous, wayward, childish and purposeless. In a moment, if the nurse's back was turned, she was out of bed, and either overturning everything in the room, destroying articles, or breaking glass. One good thing about this patient was that, in spite of her excitement, she slept well and took her food well.

A septicæmic abscess broke out in the right thigh five days after admission. It was freely incised, and discharged a thick, creamy pus. Three days later an abscess formed in the right axilla, the size of an orange. At this time she vomited everything she took; the urine was dark, almost black; the stools were clay-coloured; there was no albumen in the urine, but bile pigment was present. A few days later the abscess in the axilla was opened, and later one over the left elbow-joint. Finally appeared pelvic cellulitis, ending in an abscess pointing towards the pubes, a little to the left side. At this stage she became much exhausted, and her condition was very critical. The abscess was treated by suprapubic incision, with antiseptic precautions, and ultimately the wound closed; but she was in a very reduced, extremely anæmic state. In this case enemata of defibri-

nated blood were used with apparent success. Thereafter she made rapid progress, and recovered mentally and physically.

VI. Mania: History of Epileptic Seizures, Metritis, Obscene Conduct, Exposing herself, Offensive and Indecent Language; Recovery.

Mrs. F. B. This was the case of a young woman, aged 21, in poor circumstances, of a somewhat hysterical character, in whom insanity only lasted for a few weeks. The labour was rather a long and tedious one, lasting forty-eight hours. During the second stage, though it was fairly rapid, she was extremely excitable, tossing about incessantly and screaming. Chloroform had to be given before delivery could be accomplished. She had two abortions previously. The first mental symptoms were restlessness, irritability, and a positive determination to be out of bed and sitting up. This was noticed on the second day after delivery. The first bodily symptom observed was the disappearance of the lochia. On the second day there was inability to micturate. She complained of pains in the hypogastric region. The temperature was 103·5° on the third day after delivery, and then gradually subsided. She was always cold and shivering after labour up to the time of the mental attack. From the day the baby was born she could not sleep, and she lost her hearing before the birth of the child. She got some wine on the fourth day, and very likely this upset her more than ever. She had two or three epileptic seizures, and after that became more and more unmanageable, more violent and uncontrollable.

On admission to the asylum she was very incoherent; her conduct was violent and obscene. She attempted to injure those around her, and exposed her person to warm herself at the fire. She was continually screaming, resisting, and calling out, 'The Blessed Virgin Mary!' The attack was distinctly hysterical in character, and passed off very soon. She was much improved by attention to the bowels and uterus. She had tepid baths at night, and was poulticed. She had a keen feeling of depression when she came to

herself, and then settled down into a quiet, useful woman. Her recovery took place in a fortnight.

Here may be noticed what is quite common in these cases, the mercurial relation of the mental to the bodily state. Any uterine disturbance, the retention of a clot, for example, constipation, retention of urine, are sure to increase the mental excitement, and it falls with the relief of these conditions. In one patient there followed three mental crises on the formation and retention of clots in the uterus, three crises of intense hysterical excitement with hyperpyrexia; but they subsided on the discharge of the clots.

VII. Acute Mania: Primipara; Second Attack, Reduced Bodily Condition; Recovery.

Mrs. G. B., æt. 22, primipara; admitted for her second attack. She had been insane before marriage, but no hereditary history of insanity or nervous disease could be obtained. During pregnancy she had suffered from disorder of the stomach, and at that time she was dull and low-spirited, her husband being out of employment. She became insane in the first fortnight after childbirth. The lochial discharge was scanty, the milk suppressed, and the breasts very tender. On admission her temperature was 98·6°. She showed considerable exaltation, had a happy expression, sang, laughed and danced with great gusto. Frequent questioning elicited only occasional replies, and these mechanical, often irrelevant and abrupt. There was much incoherence, and her delusions were numerous, and of exalted type. For example, she called herself an actress, the daughter of the regiment, etc.

After admission she was most noisy at times, very destructive, tearing her clothing and bedclothes, throwing things into the fire, etc. She sang a great many songs, and danced often without intermission for a long time in imitation of ballet-girls. If forced to sit down, she would cry like an angry child for a few moments, but her irrepressible sense of well-being quickly reasserted itself, and she regained her gaiety of disposition, and indulged again in antics and mischief with unabated vigour. She constantly

tried to undress herself, and delighted in a semi-nude condition. She was very noisy at night, sometimes for four or five nights consecutively. For a time she was dirty in her habits, used very foul language, and on several occasions struck both patients and nurses. Three months after admission she menstruated; then she became quieter and more coherent, put on flesh, and recovered a few months later, having gained in weight 39 pounds.

VIII. First Attack was one of Post-Connubial Insanity; Second Attack, Puerperal Insanity; Third Attack, Puerperal Insanity.

Mrs. C. B., æt. 23. The history shows that a mental change was coming over her before marriage. She objected to the caresses of her intended husband; she exclaimed to her mother, 'I used to be full of plans, but I have no interest in plans any more.' She went off her sleep some weeks before marriage; the night of marriage would not allow her husband near her; she menstruated next day. Then she became excited, frightened, and subject to hallucinations and delusions. She cried to her people, 'Keep back, or you'll be burnt—this is the last day'; 'Don't you hear the sticks cracking, hell's fire?' Later she became maniacal, was vicious and kicked, ate ravenously, and was extremely thirsty. She had delusions of identity; she recovered in seven months.

First Puerperal Attack.—She got a fright because her baby was born quickly, and before the doctor could arrive. Her insanity in some respects resembled the previous attack, but in addition were grafted the delusions more characteristic of puerperal insanity. She believed herself to be the wife of Jesus Christ and the sister of John the Baptist, whom she recognised in the asylum gardener. She believed that one of the nurses was the mother of Christ, and hated her accordingly. She was free from genito-urinary trouble of any kind, but was very anæmic. Her insanity was of a more playful character than on the previous occasion, and distinctly puerile.

She was outrageous, childish and spiteful, kicked, bit and threw things about; her conduct was erotic and obscene,

and distinctly suggestive of sexual excitement—mock kissing, talking of true love, and of lying in bed, etc. She indulged freely in mimicry. She said she had a carbuncle in her back, and walked nearly double as if imitating someone. She would slap, bite, or spit, if anyone remonstrated with her, and was knowingly mischievous, and all the worse the more she was taken notice of. She pretended she was a sparrow, and chirruped; would put out her tongue and grip it, swinging it to and fro in imitation of a bell; she blew with her mouth in imitation of a horn, and pawed and scratched like a cat. Her recovery came after many transient lucid intervals and relapses, which made her case appear almost hopeless. She became insane again after the birth of her second child, and her attack presented a strong family likeness to the one just described.

INSANITY OF LACTATION.

IX. Melancholia with Abscess of Mamma; Recovery.

Mrs. H. K., æt. 41, was admitted with the following history: She had eight children, the youngest about ten months old, which had been suckled up to within three or four days of admission; her breasts were troublesome and sore for about five or six weeks before admission. She had suckled all her children, and usually till they were about eighteen months of age. Her condition was one of intense melancholia with great restlessness, delusions, and hallucinations. She believed that all her friends and her husband had forsaken her, and her excitement took a violent form, in which she tried to destroy herself. It was with the greatest difficulty she could be restrained from injuring herself. She had the hallucination that she saw figures moving about her bed, and that she heard voices and objects whispering in her ears. She attacked her husband and her sister. In the asylum she had the delusion that the medical officer was a very old friend of hers, although he had never seen her prior to her admission. Abscess of the breast was the exciting cause in this case. It discharged freely, and under good regimen and surgical treatment she made a quick recovery, being only in the asylum two months.

X. Resistive Melancholia with Stuporose State; Refusal of Food; Extremely Anæmic.

Mrs. K. G. This was a little thin, flaccid, anæmic woman, whose face wore a constant crying expression, who would sometimes, though rarely, speak in reply to questions, and call out 'The priest, the priest!' or 'Heaven, heaven!' She was in a state of melancholy, and would not do anything that she was asked. If she was put one way, she would pull the other; if she was made to sit down in a chair, she would stand up; if she was made to stand, she would sit down. She could not be persuaded to take her food for some time after admission, instead of this calling for the priest and talking of heaven. She had complained of pains in the head for some time before the attack; the pulse was 115, and there were hæmic murmurs (*bruit de diable*) at the root of the neck; the tongue was coated with a white fur; the pupils were dilated; consensual reflex impaired; corpuscular richness of the blood was 4,500,000; percentage of hæmoglobin 48. Although seemingly dazed and stuporose, this woman had attacks of excitement and great restlessness, evidently in a state of intense melancholic distress, so that she could not be kept in bed, but was always getting up and getting out. She was transferred to another asylum.

XI. Unhappy Married Life; Drunken, Dissolute Husband; Melancholia; Recovery.

Mrs. C. R., who had a drunken, disreputable husband, had married against the family wishes; and her husband turned out a drunken reprobate and hypocrite, became insane, and was treated in the asylum. He had led her a wild dance, and while he was in the asylum she gave birth to a child, which she nursed under these very unfavourable domestic circumstances. She became insane, turned against her husband, to whom she had been most devoted in spite of his character, threatened to kill her child and her husband, and attempted suicide. On coming into the asylum, she was in a semi-hysterical state, crying out, invoking the help of the Almighty, assuming for long periods penitential attitudes,

etc. She was exceedingly distressed owing to the breaking off of all relations with her family. This preyed very much on her mind, and she indulged frequently in long fits of sobbing over the matter. She was extremely anæmic; pulse 108; breasts full, firm, and tender. She feared abscess, as she had been so affected before; the pupils were dilated, the left more so than the right, and not so responsive to light. After a time the penitential attitudes and hysterical fits of sobbing ceased; she made herself useful, and was an exceedingly clever woman in the wards. When recovered, she was sent out and away from her husband, after she had been insane for over six months.

XII. Mania: Exalted Delusions, Furious Impulses, Strong Dislikes; Recovery.

Mrs. W. A., æt. 39, was admitted to the asylum in a state of furious raving incoherence, with delusions of exalted character. She recognised the medical officer as a titled gentleman, fell in love with him, declared she also was a titled lady, and that she was about to be married to him. Her attacks seemed often to be excited by friction with the nurses over questions of discipline. She would not be ordered about; she declined to receive any instructions, and it vexed her soul exceedingly that she could not come and go as she pleased. The result was that she became often very violent. Her feelings were most mobile; in a moment she could be moved into a paroxysm of rage and fury in which she was completely carried beyond herself. She took strong dislikes, and these dislikes remained for weeks and months until she became convalescent. She was exceedingly angry at the mention of her husband's name. She declared she had no husband and no children, that she was an unmarried woman, and the very suggestion that she was otherwise was enough to make her furious. The breath was exceedingly offensive, the lips dry. She refused food. Moist râles were clearly audible over the chest. She was anæmic, and the *bruit de diable* was loud and diffuse at the root of the neck. The temperature on admission was 99°. She was insane two years before she recovered.

XIII. Mania: Husband killed Eighteen Months before; Nursed Baby close on Fifteen Months; went to a Situation, and then became Insane; Rheumatic Symptoms; Recovery.

Mrs. M. P. Husband was killed eighteen months before; the child on patient's admission was eighteen months, so that the shock of the husband's death must have come on about the time of parturition. She weaned the child three months before admission, went to a situation a week before admission, and to her friends she then appeared to be all right. The situation, with its new duties—having to learn new ways and acquire new habits—and the worry which is usually associated with a change of place, seemed to be the last straw in the production of this attack.

On admission she was intensely excited, very bold in her manner, outrageous, immodest, indecent in her conduct. She refused food, believing it was poisoned. She had forgotten that her husband was dead, and spoke of him as if alive; she was anxious about the children. Her excitement continued day and night for a long time; there was anæmia and emaciation; the lips and tongue were dry. She became more reckless and impulsive; she wanted to burn her hair. Then she seemed to feel pain when handled, and cried out; but no swelling was noticed, though she groaned when she rose, as if the muscles or joints were sore. Later on the small joints of the feet were swollen, and salicylate of soda was given with good results. Soon after this the metacarpo-phalangeal joints, etc., became swollen. Anti-rheumatic treatment was again persevered with. These symptoms disappeared, she began to put on flesh, and finally recovered after she had been insane six months.

CHAPTER XVII.

CONSECUTIVE OR CONCOMITANT INSANITIES.

Asthma in relation to insanity—Bright's disease—Cardiac disease—Different lesions and different mental symptoms—Diabetes—Exophthalmos—Gout—Influenza—Insanity and lead-poisoning—Menstrual irregularities and insanity, and the ordinary effects of menstruation in the course of insanity—Myxœdema—Phthisis—The form known as phthisical insanity—Post-febrile insanity—Raynaud's disease—Rheumatism—Sunstroke—Uterine disease and insanity.

THE theory of metastasis—a change of disease from one site to another—is one which is very suggestive to those who have seen much of insanity, and have been surprised from time to time by the intercurrence of acute bodily disease with insanity. Alternations from mental to bodily disease undoubtedly frequently occur, and constitutional disturbance of a very grave character is frequently seen in asylums to be associated with an alteration of the mental state, which may merely consist of a change of mood or temper, a partial clearing up of the intellect, or an actual recovery for a longer or shorter period. The relation of bodily to mental disease is interesting from other points of view. In attempts at diagnosis of mental disease, the symptoms are so illusive, sometimes so difficult to ascertain, and often so difficult to appraise at their proper diagnostic value, that the treatment of such cases is often very perplexing and disappointing. It is not surprising, therefore, that the physician in general practice, as well as the asylum physician, should seize on bodily conditions associated with insanity as something tangible, something which may have a relation as cause to effect, and therefore give practical suggestions for treatment. The result is that a great deal has been written on the rela-

tion of various bodily diseases to insanity, and attempts have even been made to classify insanity in the light of its relation to these bodily states. It is not my purpose to advance any argument in favour of such a theory. That some bodily diseases have a more intimate causal relation to insanity than others is undoubtedly true, but we know that many cases of the kind are never associated with even nervous symptoms, and if we pushed this theory to its logical conclusion, we should have to admit either that the theory failed, or that there must have been associated evidence of heredity or mental causation in the cases where it had any appearance of justification whatever. We cannot as yet fix on a sound code of causation, and it is not surprising that we should look for explanations in the multitude of bodily diseases which have a material realism in striking contrast to mental disease.

In dealing, therefore, with the question of bodily disease and insanity, it must not be supposed that I am committed to a belief either in the necessary causal relation of the one to the other, or in a definite group of symptoms associated with any particular bodily disease. The following series, arranged alphabetically, will comprise a summary of facts observed by myself, taken from the clinical experience of many writers, and intended to throw light on the relation of mental to bodily disease.

Asthma.

It has frequently been observed by Savage, Conolly Norman, and others, that alternations from asthma to insanity, and *vice versâ*, are liable to occur, and Conolly Norman has written (*Journal of Mental Science*, 1885) a full account of such cases. Summing up his results in seven cases, he observes: 'All the foregoing cases, except the last, have one remarkable feature in common—they all show a marked alternation of mental and pulmonary symptoms. Thus, in the first case we have chronic asthma vanishing when insanity comes on, and reappearing when the mental trouble becomes chronic. In the second, asthma cuts short and takes the place of an attack of insanity. In the third,

perhaps the most remarkable and interesting of the series, habitual asthma disappearing, its place is rapidly taken by insanity, which again immediately disappears on the return of the asthma. When the last change occurred, the patient was under close observation in an asylum, so that there can be no doubt as to the sequence of events. It would probably be carrying scepticism too far to say that the cure was due to the action of expectant attention in a patient already convalescent. In the fourth case, chronic asthma occurring in an imbecile ceases with an acute attack of insanity, and comes on again when the latter has passed off. In the fifth the same order of things is observed as in the third. In the sixth chronic asthma lessens in severity, and finally disappears with the oncome of insanity. When the mental defect becomes chronic, with some degree of amelioration, asthma returns. The mental symptoms in these cases were not of any definite character; some were melancholic, and one was a case of acute mania, the others exhibited the characteristics of chronic mental disease.' 'In three cases of Dr. Savage's there was a history of phthisis in the family.' This is of special interest, from the fact that there is a form of insanity, afterwards to be described, called phthisical insanity.

Bright's Disease.

It is a matter of doubt whether Bright's disease occurs more frequently among the insane or not, but there can be no question that albuminuria is not infrequently found in such cases, and post-mortem examination, if carefully conducted, not infrequently reveals pathological changes of a more or less striking character. Dr. Howden Montrose found fatty degeneration of the kidneys, cysts, and albuminuria in a considerable number of cases. The mental symptoms seen in connection with Bright's disease may be maniacal or melancholic. Of three cases described by Wilks, two seem to have been associated with epileptiform seizures, and all were more or less delirious, if not maniacal. According to Clouston, 'the symptoms are those of mania of a delirious kind, with extreme restlessness, delusions as to persons

being round the patient, and absolute want of fear of jumping through windows, or other actions that would kill or injure.'

The following is a summary of cases recently under treatment :

Mrs. C. B., æt. 36—*Bright's disease, paroxysmal mania, refusal of food, ending in mild dementia.* This patient has been insane for about a year. On admission from another asylum, nearly a year ago, the report was : ' She is very unsettled, rambles, is often incoherent in conversation, and shows various insane delusions, such as that she is Queen Victoria, that another of the patients here was put into a cellar below her, etc. She refuses food because she is " feard " (afraid) to take it. Bodily health and condition are weak. She is anæmic, and suffers from albuminuria.'

Before coming under asylum treatment she had attempted to jump through a window. For the first few months of residence here she was excited, noisy, and incoherent, her attacks coming in gusts. Then she toned down into a state of weak, irrelevant, inconsequent mania, without any expression of delusions. Now she is in a state of mild dementia, but her bodily health is much improved.

Mrs. M. G., æt. 37—*Bright's disease, ulcerative tonsillitis, melancholia with fear of poison.* This patient was admitted after previous treatment for Bright's disease in the Glasgow Royal Infirmary, the throat symptoms appearing after admission here.

The urine was loaded with albumen, and smoky in appearance. Microscopic examination showed red corpuscles, granular cells, epithelial and granular casts, renal and tailed epithelium. She was treated at first with milk diet, but there was no improvement. Afterwards she was put on ordinary diet, and this change was followed by a marked diminution in the amount of albumen present in the urine, and a considerable improvement in her physical health.

She had a sad expression, also a weak memory. She took no interest in her surroundings, but refused food, believing it to be poisoned. She threatened the lives of her children, and was sleepless. She was very much afraid of something about to happen, and asked us if she was to be blown up with

dynamite. She is now convalescent, though still somewhat depressed.

M. E., æt. 26 — *hysteria, catalepsy, melancholia, anæmia, Bright's disease, fear of poisoning.* This patient, under the influence of insane fear, developed delusions, *e.g.*, that her food was poisoned by her uncle, and that she was pursued by the Evil One, whom she addressed as Lucifer. She refused food, and kept continually praying and calling out, 'Jesus, Mary, Joseph!' Before admission she suffered from hysteria and catalepsy. She suffered, and still suffers, from œdema, albuminuria, anæmia, and other symptoms of Bright's disease.

From these observations, it must be manifest that no special group of symptoms can be looked for, but it is evident, from the three cases which have just been described, that in them, at least, there was fear or delusions of poisoning, and melancholia was the more prevalent form.

The effect of this disease on the arterial system, on the heart, and the state of the blood, must naturally predispose to brain lesion, or at least to brain anæmia, and the cases which I have seen have partaken more often of the melancholic than of the maniacal type.

Cardiac Disease.

Dr. T. D. Greenlees, writing on cardiac disease in the insane, observes that 6·69 per cent. of the deaths in English asylums were due to heart disease; but the prevalence of cardiac disease with insanity, as he is careful to point out, must vary in different districts, for the geographical and the geological factors require to be taken into account. In my experience, the proportion of cases of heart disease, as ascertained by examination on admission, and in several cases verified post-mortem, is not less than 20 per cent. According to Mickle, the following mental symptoms are generally associated with particular forms of cardiac and arterial disease:

Mitral regurgitation, with some degree of mental depression, together with delusions of suspicion and persecution. This experience I can confirm from notes of several cases,

but the delusions of persecution were not so frequent as in Mickle's experience, and there was a strong suicidal tendency in some cases.

Mitral Stenosis.—The patients are frequently excitable, impulsive, querulous, and most difficult to manage.

Aortic Regurgitation.—Such cases are often excitable, sleepless, and restless. They are frequently subject to delusions of an exalted character, and not infrequently manifest hallucinations with other perversions of the senses.

Aortic Stenosis. — This disease is often associated with excitement, sometimes with general paralysis; the patient is violent and impulsive, and sometimes subject to delusions of persecution, or that his food is poisoned.

No very definite conclusion can be drawn from this list of symptoms, and I have not been able to elucidate the matter by a study of fifty cases under treatment during 1896. The following results are interesting, however. In over 30 per cent. of epileptics we found heart disease, 80 per cent. exhibiting mitral disease, 12 per cent. aortic disease. While mitral disease is associated with melancholia in the majority of cases, there is a considerable minority of mitral cases suffering from mania. Aortic disease is usually associated with mania. We found no general paralytic with aortic disease, but in a large proportion of the male cases there was evidence of mitral incompetence. One man suffering from mitral incompetence was twice insane, in the first instance presenting symptoms of melancholia, in the second of mania. Many cases of heart disease which are subject to chronic or recurrent excitement live for a long time without failure of compensation, and this may seem strange, because excitement is regarded as dangerous to patients having heart disease. We have cases of noisy excitement, singing, laughing, shouting, scolding incessantly, and yet they seem none the worse after a lapse of fifteen years. But these are chronic cases; the excitement is automatic, and quite disconnected from the original state of feeling which gave it birth, and which is now impersonal and dispassionate, if not actually dead.

Diabetes and Insanity.

The mental relations of diabetes have received considerable attention, and in general practice mental and nervous changes are frequently noticed and looked for. The origin of diabetes is essentially a nervous one, and Maudsley and Savage have drawn attention to the intimate family relation between it and insanity. Short, however, of actual insanity may be observed characteristic mental symptoms. The literature of insanity does not furnish many cases, because diabetes itself is rare, but undoubtedly there is a tendency towards mental disease in well-marked cases of diabetes. In Clouston's cases melancholia was well marked, and the characteristic mental torpor, a mental weariness, or, as Lasègue has it, 'the loss of appetite for thought.' It is natural in such cases, so long as there is any capacity for mental thought left, that the mind should be self-centred, and that the patient should brood, and fix his attention on the distinctive feature of his disease, the excessive formation of sugar. This being so, it is not surprising that the melancholy should often take on the hypochondriacal form, and this is well brought out by Régis in his 'Manual of Mental Medicine.' Diabetic insanity is thus described by him: 'The mental state of diabetics reveals itself in general by hypochondria, torpor, or symptoms of invincible somnolence, fears of ruin or misfortune, motiveless prepossessions, and tendency to suicide. The hypochondria here necessarily assumes a peculiar character; it has for its object the presence of sugar in the urine, and impels the patient to examine it, to taste it, to multiply analyses, and to discuss the proportion of glucose and the make-up of the dietary regimen to the exclusion of all other subjects. It is to be remarked that this hypochondria is in direct ratio with the amount of sugar excreted, as it improves as the sugar decreases.' Clouston sums up his description of two cases of diabetic insanity as follows: 'These two cases of diabetes had many mental symptoms in common, though they had some differences. They were both melancholic. They both imagined they had no money, that they were ruined, and could not pay their debts. They both had

a disinclination to take food. They were both wanting in affection for their children. They both were thin and weak. They both had a tendency to sores on extremities, with small healing power; but the one was resistive and dogged; and the other more passive, inattentive, and uninterested in anything in the world. Death in both cases occurred rather suddenly.' Dr. Savage observes that a patient may suffer from diabetes for a time, and may become insane, the symptoms of diabetes disappearing, only to reappear on recovery from the insanity. He has observed glycosuria in puerperal insanity, but I have been unable to confirm this from my experience. In one case at present under my care—the case of a woman who has been insane for nearly forty years, and who is exceedingly demented—diabetes mellitus has appeared with all the characteristic symptoms of the excessive formation of sugar, polyuria, dry skin, great thirst and appetite. In another patient—a male who has been always a little weak-minded—diabetes insipidus has made its appearance. His thirst is extreme, his cheeks are now suffused with a delicate blush all the time, and he has suffered from a severe boil in the neck.

Exophthalmos.

In the *Journal of Mental Science*, June, 1884, Dr. Carlyle Johnstone gave a very complete description of a case of exophthalmic goitre with mania. In summing up, he remarked 'that psychical disturbances have always been common in cases of exophthalmic goitre, and instances of actual insanity have been recorded.' The irritability, capriciousness, mental excitability, the hysterical manifestations, the alternations of excitement and depression, characteristic of the disease were all present in the cases which he recorded, and aggravated even to the extent of acute mania. Rapid pulse and prominent eyeballs are symptoms found associated with recent insanity, and also with general paralysis of the insane. In Johnstone's case lactation stopped four months after the birth of her child. It was evidently an exhausting process, as the patient had been losing flesh some time previously. In one case of melancholia from hyper-lactation under my care recently, exophthalmos was observed, though the size of the thyroid gland was not appreciably

enlarged. The patient was distinctly melancholic; there was no irritability, excitement, or violence; no hysterical symptoms, merely a dull melancholy, which disappeared as the bodily health was restored. The exophthalmos also subsided very much after, only a staring expression of the eyeballs remaining. In another patient we found it associated with enlarged thyroid and enlarged heart, also a case of melancholia, but the goitre really was in this case the more striking condition.

For further observations, *vide* Turnbull, *Journal of Mental Science*, vol. xxxvi.

Gout and Insanity.

On this subject the late Sir Russell Reynolds, in December, 1877, published his views in the *British Medical Journal*, and the following summary gives a practical *résumé* of the subject:

'*Mental Disturbances of Gouty Origin.*—Many cases have come before me in which there was great restlessness; the patient could not be still for a moment, was alternately excited and depressed, slept badly or not at all, was intensely hysterical, and could not attend to business, while others have complained of failing memory, of want of power of attention, of suicidal thoughts, of intense melancholy; others of sounds in the ears, voices sometimes distinct, sometimes not, and some or all of these in maniacal conditions, but yet all disappearing under treatment upon the hypothesis I have mentioned. These symptoms often alternate with or accompany pains in the head, and certain minor sensations. Some of the most intense head pain that I have met with has been of this character, and been relieved by treatment of an anti-gouty description. The special features are pain on one side of the head, usually parietal or occipital, *grinding* habitually, but forced into almost intolerable severity by movement, such as the jar of carriage-riding or running down the stairs of a house, and this is without any over-sensitive nerve-points, without tenderness of the scalp, and without any aggravation by mental exertion. Various modified sensations occur, such as vertigo, which is the most common, and may exist alone. It is sometimes determined by posture.

With it is often associated deafness, noise in the ears, and a feeling of "beating in the ear." With vertigo and tinnitus there may be much mental depression or attacks of bewilderment, amounting sometimes to those of le petit mal. These modified sensations are most variable in their kind and their locality, and this wide distribution and variability is by no means a bad sign.'

The correlations of insanity and gout are fully and succinctly set forth by Dr. Rayner in a well-digested summary written for Tuke's 'Dictionary of Psychological Medicine.' There is given in the article a broad general view of the subject, and a distinction is drawn between cases occurring in association with active gout and cases associated with suppressed gout. The symptoms are of no uniform character, although melancholy seems to be in frequent association with this disease. There have been observed examples of simple delusional and suicidal melancholia as well as the stuporose form. There have also been observed cases of mania with epilepsy and hallucinations, as well as simple and paralytic dementia. Retrocession of gout, as Rayner observes, is a well-recognised cause of apoplexy; but it might also result in mania with or without epileptiform seizures, and in other mental disturbance. Cases are quoted from Garrod—one of a gentleman aged seventy, in whom the sudden disappearance of gout from one wrist was followed by mental disorder for three weeks, which ceased on the reappearance of the gout. Another was the case of a clergyman aged sixty, a great martyr to gout, who, when slightly recovering from a moderately acute attack in the feet, went to his church and officiated on a very cold day. After the service he took train to London, where he was found a few days later quite insane. He recovered. One of the most striking in Rayner's experience was that of a man who, after protracted gout for which he had taken large quantities of medicine of his own prescribing, developed delusions founded on hallucinations. In a short time he became stuporose, and was sent to Hanwell. He was extremely weak on admission, and had not spoken for weeks. Hot-air baths were given with great benefit. During one of the earliest

exhibitions of this treatment, he spoke for the first time. Under their use he soon developed severe acute attacks of gout, and convalesced rapidly.

Influenza and Insanity.

A considerable amount of interest has been aroused by the subtle and mysterious encroachments of influenza on the nervous system, and its undoubted influence on the mind; but many doubt the propriety of using the term 'post-influenzal insanity,' as signifying cause and effect. There can, however, be no question of this, that as a contributory cause influenza is a factor of the utmost importance. The manifestations of influenza in relation to sanity and insanity have received very great attention in asylums, where the medical officers have had ample opportunities of judging of the effects of this epidemic disease on the sane as well as the insane. Before enumerating the mental symptoms which may characterize insanity following influenza, it is desirable that I should emphasize the fact that the disease has a special affinity for nervous tissues, for the brain in particular, and that it frequently gives rise to head symptoms of an alarming kind. Many patients who have suffered from influenza talk of it with bated breath and superstitious fear, and not a few have been shattered nervous wrecks for a long time after, if not permanently. There is noticed a nervousness afterwards, motor and sensory, vague fears difficult to explain, impaired memory, sleeplessness, a nervous feeling of something impending, in some a dread that reason may be dethroned, vertigo, and other nervous and mental features in many cases. I have known a strong, healthy, temperate man without any apparent nervousness previous to his attack, without any family history of nervous disease recover, and then relapse into a temporary state of mental weakness and excitability in which he was confused, unable to concentrate attention, or make a simple calculation, and subject to fits of terror, as if suffering from delirium tremens. He was so much the prey of hallucinations that he attempted to jump out of a window. With friends to sit beside him for a couple of nights, he was safely guarded from self-injury, and he

passed out of this state with a certain nervousness and fear that some day he might become insane. This led to his effecting a change of occupation, and he is now quite well and strong.

Professor Kirn, of Freiburg (*Allgemeine Zeitschrift für Psychiatrie*, Band xlviii., Heft 1 and 2), affirmed the opinion that influenza in his experience was a more frequent exciting cause of insanity than any other febrile affection. He summed up from the collected records of fifty-four cases observed by himself and others. In the first place, he noticed what is now matter of common experience with all physicians, that nervous symptoms are prominent in ordinary cases of influenza. There are headache, sleeplessness, pains in the limbs, and neuralgia, with great prostration. The forms of insanity he recognises as coming under two heads: *First*, where delirium occurs during the febrile condition of influenza, being frequently associated with pneumonia. There are delusions and hallucinations, strange dreams, boisterous exaltation, or howlings and lamentations. He observes that patients affected with delirium during the acute course of the disease were rarely found to have any hereditary predisposition to insanity. In the *second* or post-febrile form he obtained details of thirty-nine cases. The insanity generally appeared in from four to eight days after the cessation of the fever, although in some cases it came on as late as three weeks after. He groups the mental symptoms under three heads: mental exhaustion, melancholia, and mania. The exhaustion is of the same character as in those cases where the constitution of the patient has been reduced by fever or the puerperal state. He regards the melancholic form as the commonest. Here there is sleeplessness as the first symptom, then discontent, with reproaches against the attendants and distrust and suspicion against the physician. The patient is hypochondriacal, fears ruin, loss of money or loss of honour, and occasionally there are attempts at suicide, frightful hallucinations, painful delusions, and refusal of food. Of the maniacal group nothing particular or characteristic can be stated. The symptoms were those of typical mania, and recovery occurred in about two months.

Insanity and Lead-poisoning.

The pathogenic influence of lead on the nervous system has long been recognised, but only of late years has attention been directed to the association of lead-poisoning with mental changes. The nervous symptoms, when insanity appears, are not always so diffuse or well marked as might be expected. In some cases there is no wrist-drop noticed at all, but one phenomenal and striking nervous change has been observed by Dr. Hale White, Dr. Alexander Robertson and others, viz., epileptic or epileptiform seizures. In some cases also, as observed by Dr. Ruxton and myself, loss of memory, especially for proper names and recent events, has been remarkable. In other cases confusion may arise owing to a complication of causes, *e.g.*, alcoholic excess as well as lead-poisoning. These were combined in the history of the case which I reported in the *Journal of Mental Science*, October, 1883. There was also a history of slight injury to the head, but after the mental excitement, which had been due to a fit of drinking, passed off, and the tremor had disappeared, there still remained a decided weakness of memory, an inability to register and recall at will new impressions. This patient, long after he was well in all other respects, so suffered from impaired memory that he was unable to take his former place as a foreman painter. He required constant supervision in his work, because he was apt to forget himself and get lost in a kind of maze. Dr. Robertson's cases are very interesting from the fact that they both occurred in young girls, and there was more or less atrophy of the optic discs in both cases. Noisy delirium, which continued for five weeks, characterized the one case, and although she ultimately recovered, the hearing was impaired, and the sight was apparently irretrievably lost. In the other case, four days before admission to the hospital, the patient was seized with convulsions, and within two hours had six fits. Three other fits occurred during the first week of her residence, but no more prior to her dismissal about a month afterwards. According to Rayner, mental disorder from lead-intoxication does not occur without an antecedent period of

premonitory symptoms. These consist of headache, wakefulness, disturbed sleep, and some terrifying dreams with sensory derangements, especially tinnitus aurium, and flashes of light before the eye, together with slowness of ideation and depression of spirits. Delirium, either of a melancholic or maniacal character, appears to be very frequent in these cases. In the *Journal of Mental Science*, 1880, Rayner recorded cases in which there was a gradual evolution of hallucinations and chronic insanity which did not differ from similar disorder produced by alcoholic tippling except in the marked wrinkling of the face in two cases, and by the greater persistence and predominance of visual hallucinations and motorial troubles (startings and tremors). The prognosis is given by Rayner as follows: The cases of nocturnal delirium may recover at once. The continued delirium, if arrested within three or four days, convalesces in a week or two, but if more protracted, convalescence may not be complete for two or three months. Dr. McDowall Morpeth observed that in Newcastle, where there are many lead-works, dementia of a very serious type has been found to occur as the result of lead-poisoning. It has been found that, if the treatment usually prescribed is employed, the results are disastrous, and according to McDowall, 'if iodide of potassium were given in very severe cases, the patient would pass into a state of coma and die quickly.' Copious diluents, sulphur baths, a diet which best favours elimination, and attention to the excretory channels, are the principal indications.

Menstrual Irregularities and Insanity.

The alteration in the moods and tenses of the sane woman during normal menstruation is sufficient proof of the quickness of mental response to the exercise of this function. It does not of necessity follow that, because of this responsiveness under normal conditions, the responsiveness should be exaggerated under abnormal conditions. The varieties of menstrual irregularities have to be taken into account, the difference in their physiological effects, their causation, and their precise relation in point of time to the outbreak of a

mental attack. Thus, for example, we get such a history as the following: A girl of nineteen has not been strong; she has studied hard, menstruated regularly, but too freely; became insane—acute hysterical mania—then menstruation ceased. She is convalescent in three months; the menses have not yet reappeared, but she is still rather anæmic and below par physically. A month later a scanty flow occurs, at next period more profusely, and thereafter it is normally re-established. Is this a case of amenorrhœal insanity? Most certainly not. Is it a case of insanity following menorrhagia? Surely not. The menorrhagia, if such it can be called, was as likely a nervous sequel, a link in the chain of events leading up to the attack of insanity.

Anæmia and amenorrhœa are sometimes regarded separately or conjointly as causes of insanity; but whatever importance we may concede to anæmia in this respect, there is not much to be attached to amenorrhœa. The personal equation is the all-important point for decision here, and the personal equation in many cases of insanity with menstrual irregularity is one highly neurotic and hysterical to begin with, and the menstrual changes are mere aggravating incidents in not a few cases. We meet with cases where suppression of menstruation immediately preceded an attack of mental excitement, and with other cases in which the menses were in evidence up to the time of the mental attack, but not after. On the principle of *post hoc ergo propter hoc*, should we regard the former as amenorrhœal insanity, and the latter not?

If there is anything in the theory of circulatory metastasis, a diversion of the blood current from one locus to another, we would as readily assume that central disturbance was rather the cause of amenorrhœa than the effect. All this notwithstanding, we have to admit that cases do occasionally arise in which a distinct history of amenorrhœa is manifest before the appearance of nervous and mental symptoms. There are also cases in which the suppression of the menstrual flux, whether of mental origin—as from shock—or not, by reaction operates injuriously on the mind. Most medical men are familiar with cases where the hot sitz bath,

with perhaps the gentle stimulation of a little mustard, has promoted menstruation and relieved the tension of the nervous system, which threatened to break away in the form of hysteria or mania.

The relation of menstrual irregularity to anæmia is such that the two are most frequently associated, though the chronological sequences are not always the same. In some cases, as in chlorosis, there is perhaps a primary neurosis. By Trousseau it was regarded as essentially a nervous disease, having its origin usually at the time of puberty. Anæmia and menstrual irregularities he regarded as secondary and sequential; but it is possible, nay probable, that he rather underestimated their importance. That an intimate relation exists between the mind and blood nutrition is an undoubted fact, and nowhere is this better illustrated than in the lives of hospital and asylum nurses. Worry, anxiety, and prolonged strain frequently bring on anæmia with neuralgia, sleeplessness, and menstrual irregularity — not necessarily amenorrhœa, for in many cases menstruation is too frequent and too profuse.

Amenorrhœa is not infrequently associated with insanity of adolescence, but it would be absurd to speak of it therefore as amenorrhœal insanity. In some cases we find suppression at the outset, in others after the onset of the attack; while in a third class of cases I have found that the flow, at first normal, becomes more and more scanty until it disappears altogether. In young women I have found stupor, amenorrhœa and phthisis all associated together. The frequency of dysmenorrhœa, combined with insanity, is difficult to determine. Its essential symptom, excessive pain, is for obvious reasons an unknown quantity in many cases; but judging from the evidence that is available, it does not appear to be so frequent as we find it in the experience of general practice. It must, however, be remembered that in states of mental excitement the patient is more or less oblivious of pain. Menorrhagia is a condition prone to arise at the climacteric, but in younger cases I have been surprised to find it not at all infrequent.

There are no special forms of insanity expressive of par-

ticular types of menstrual irregularity, nor are the mental characters the same in immediate relation to the onset of the flow. In observations made regarding physical and mental changes before, during, and after menstruation, it was noted that disturbance was most noticeable for a day or two before the period, less marked as a rule—some, however, were worse—during menstruation, and least noticeable, usually absent, after it was over. Failure of appetite, headache, constipation, sleeplessness, suspicion, irritability, and impulsiveness, were observed in the first stage mentioned; indeed, the mental state was more or less exaggerated, or, instead of the foregoing mental symptoms, stupor or mental depression attracted attention.

Myxœdema and Insanity.

Since the late Sir William Gull directed attention to what he called a 'cretinoid degeneration in adults,' considerable interest has been taken in the disease, which is now known as myxœdema. Cases occurred in asylums the nature of which was not suspected until the researches of Gull and Ord were made public, and cases also occur in asylums where myxœdema is secondary to the mental disease instead of being the primary condition. It is now well known that myxœdema has mental symptoms of its own long before there is any suspicion of insanity in the case. Whether these are due to sensory changes, induced by peripheral modifications of the cutaneous tissue with altered conduction of sensory impressions, has not yet been settled. According to Dr. Ord, the mental dulness is due to the padding of the peripheral extremities of the nerve, so that there is imperfection of peripheral conduction, and the mind is starved of appropriate sensations; but it is more than probable that there are also changes in the nervous or interstitial substance of the brain itself. The disease usually occurs in the female sex, though not always so, and it frequently results in a negative mental state, an obscuration of the mental faculties, a slowness of mental processes, a condition of somnolence, and a slow, half-awake speech. It is not surprising also that the changes which alter the whole

appearance of a woman, take away her comeliness and replace it by a fat, unwieldy appearance, should have a direct influence on the mental condition. There is, therefore, mental depression in some cases with suspicions, and it may be delusions of persecution.

The following is a brief summary of a case detailed by Monsieur Blaise, which may be found in the *Journal of Mental Science*, January, 1883: It was the case of a woman aged thirty-four. She had always been very stout since menstruation, at the age of eleven, and about the age of twenty-one the affection commenced. Her character, which was boisterous up to the age of twelve, changed and became gentle. She led an active life up to her majority. Her intelligence appeared lively, and her speech was exceedingly rapid. Up to the age of twenty-seven she presented the same appearance. Then she increased in size in different parts of the body, experienced strange sensations, had frequent headaches and pains in the malar bones. Her character altered; she became restless, the speech slow, thick, and with a peculiar *timbre*. She entered the Montpellier Asylum January, 1878. At first her judgment rectified the errors of sensation, but by degrees she began to believe in her illusions and hallucinations. At last she fancied she wore a mask, and that her head was transformed into the head of a dog. Ideas of persecution supervened. It became difficult to close the mouth, and the voice was strongly nasal. The swelling at last receded, and at the same time the mental condition improved.

The following case is briefly summarized from my notes: Mrs. G. C. at the age of forty-six became affected for the first time with acute mania. She had led a rather loose intemperate life. She was rambling and incoherent in her talk. She declared that people were conspiring to cheat her out of a large fortune. Sensation was acute, speech rapid and voluble. Her attack of excitement passed off in a few weeks, and some months later she suffered from mental depression, which seemed to be associated with indigestion and constipation. She then reacted between the two extremes of maniacal excitement and depression for eighteen months,

after which evidence of myxœdema appeared. At this time she complained a good deal of headache; she got tired readily when walking. Her sight failed, and she became more depressed and melancholy. Two months later she was seized with a peculiar fit, for she seemed to faint, and after coming to, she vomited a little, and rifted up wind. These fits were repeated, and after them she suffered from most terrifying hallucinations of sight and taste, and died in a few weeks. Post-mortem examination revealed a round-celled sarcoma of the left tempero-sphenoidal lobe.

A case of myxœdema, on recovery, gave from memory the following account of her case: 'I was in the infirmary a week, and then in the asylum, but knew nothing about it till I woke up, shouting, "Prepare to meet your God!" My voice seemed like a trumpet, it was so loud, and it sounded strange. I looked out of the window and thought it was a new world; it was just lovely. The next time I came to myself was in the train, being taken to another asylum. I thought the engine was always howling, "Jennie Craig! Jennie Craig!" I thought I was being taken to some river to be drowned.' There were evidently blanks in her memory, if not in her consciousness. Some time later she says: 'I thought the Lord was coming, and there was a lot of people gathered together, and in the crowd I saw a man whom I knew, and he was praying to the Lord to stay His hand, for the world was not all converted. I had a bag in my hand, and the devil came and tempted me to give it to him.'

The prognosis of this form of insanity, thanks to the discovery of thyroid treatment, is now most hopeful, if there are no grave organic complications, as in the case of tumour of the brain already described. After recovery is complete, the treatment requires to be still pursued, else relapse will take place.

Phthisis and Insanity.

To Dr. Clouston we owe the term 'phthisical insanity,' and his description of the mental symptoms associated with phthisis was so striking, and seemed to be so frequently

justified in the experience of others, that for some time the term 'phthisical insanity' was in common use. In his latest writings on the subject, Dr. Clouston still strongly asserts the intimate relations of phthisis and insanity, and still recognises the existence of a specific form of insanity under the designation phthisical. Undoubtedly a good deal can be said for his view that, as phthisis is more common among the insane, and the scrofulous habit is most prevalent in the idiot class, there may be some intimate relation—a twin sistership, so to speak, of the two. When Clouston, Schroeder, Van der Kolk, and others, first directed attention to the subject, phthisis was a much more frequent disease in asylums than it is to-day, and the material for clinical study was therefore much larger in amount. Whether as a result of improved hygienic conditions, or a change in the type of disease, insanity and phthisis are not nearly so frequently associated, nor is morbid suspicion so frequent a symptom as might be expected. This used to be regarded as the essential symptom in the insanity of phthisis, but as Clouston points out, it is also a symptom where anæmia is a marked condition, and it certainly is in phthisis. It is not surprising that wherever there is morbid suspicion there should often be delusions of poisoning and refusal of food. We have in cases of phthisis seen in asylums depressed vitality, depressed reflexes, often negative pulmonary symptoms, and a low-pressure circulation; but tubercular disease manifests itself in a variety of ways. It is a fact that phthisis in asylums is often unassociated with symptoms, and owing to the mental state and the deficient nervous energy, auscultatory phenomena are feebly produced. It is quite common to have phthisis without cough or spit, and without any increase of temperature during at least the first half of the disease, and this is the time when we depend on percussion alone for a provisional diagnosis, when loss of weight directs attention to the chest. Some cases show no evidence whatever of gastro-intestinal affection, while others present abdominal symptoms with very little coincident changes in the lungs.

Another group presents gastric symptoms as the only prominent feature of the disease; while a fourth is tuber-

cular in the joints and in the subcutaneous tissues. In a series of cases of the last class I have seen the very opposite mental conditions: in the one extreme, mental depression, fear and suspicion; in the other, exaltation, with delusions of identity, a feeling and expression of well-being, and no evidence whatever of any physical discomfort.

According to Clouston, cases of epilepsy with insanity superadded to phthisis occur in a greater proportion than the appearance of phthisis with most other forms of insanity. This has not been my experience. He has observed in general paralysis that melancholic symptoms are often associated with pulmonary consumption. One very important point is the question of diagnosis. When a patient, gaunt of aspect, round-shouldered, with pale or sallow complexion, and rather sunken cheeks, gives vent to suspicion of poisoning, and refuses food, one may be inclined to suspect that here is a case that will show signs of phthisical insanity, although as yet there are no physical signs of tubercular disease. Undoubtedly, cases of neurotic type, lean, wretchedly thin, and emaciated, may be mistaken for phthisical cases, when the anæmia and the malnutrition are really symptoms of cardiac diseases, if the diagnosis is made from the symptoms rather than from the physical signs.

Clouston frankly admits that in some of his cases which recovered mentally there may have been a mistake made in the diagnosis; but he observes that it must yet be claimed that it is so entirely distinct that it is not liable to be confounded with insanity non-phthisical, accompanied by anæmia, or excited by syphilis, or alcohol, or with ordinary idiopathic hereditary delusional insanity. With this statement I so far agree, that I have seen such cases as he describes; but I have also seen phthisical cases of an opposite mental type. I have, moreover, to admit that mistakes have been made in my own practice in the diagnosis of this disease, simply because from the mental symptoms, as given by Clouston, I attempted a diagnosis before there were any physical signs to justify it.

There is no more common symptom of insanity than morbid suspicion, and when in the trail of this comes refusal

of food, it is but a natural logical result in a diseased mind. Add to these anæmia and loss of weight; and if these are taken together as evidence of phthisical insanity, there will often be cases of mistaken diagnosis, unless beforehand a careful physical examination has revealed the beginnings of tubercular disease. The treatment of patients suffering from phthisis and insanity is now more hopeful than formerly, and it is not necessary to give directions here for the treatment of a disease which is so well known in general practice. With plenty of fresh air, a careful and suitable dietary, a dry warm climate, and the usual therapeutic measures indicated in this disease, according to site and symptoms, a great deal more can be done than formerly.

Post-Febrile Insanity.

This was a term applied by the late Dr. Skae to attacks of insanity following immediately on the appearance of zymotic disease, or as a result of exhaustion therefrom. Delirium is known to be a frequent accompaniment of fevers. With high temperature, a condition of the blood is induced which, along with the toxic state characterizing the particular fever present, favours delirium with hallucinations, sometimes a very acute maniacal delirium requiring more attention than the ordinary febrile symptoms themselves. The subject of insanity in relation to fever has attracted considerable attention for many years. Post-febrile insanity may follow zymotic and non-zymotic diseases. It has been known to be associated with scarlet fever, typhus, small-pox, typhoid, erysipelas, and rheumatic fever. The insanity may appear with the first appearance of the fever itself, in the form of a maniacal attack. Bristowe and Murchison have observed cases of mania at the period of febrile invasion. It must not be supposed that the severity of the mental symptoms is an indication of the gravity of the febrile process. In many cases it is quite the other way, the mental excitement being due to a nervous susceptibility peculiar to the patient himself. According to Nasse, post-febrile insanity may appear at three different epochs: *First*, as the immediate result of the fever itself; *second*, as a pro-

longation of the delirium when the fever has subsided; *third*, during the period of convalescence from fever. To sum up, therefore: Insanity associated with febrile conditions may be maniacal and delirious in the early stages of the fever. As the fever subsides, a more persistent maniacal state may supervene, or during convalescence it may be noted that the patient is not recovering his mental vigour; that there is apathy, indifference, mental torpor, enfeebled memory, and a want of consciousness of his real position and surroundings. In the last form the prognosis is not so good; but in the case of patients affected at an earlier stage, so far as my experience goes, the results have been satisfactory. The following, however, was an exception. It was a case of acute maniacal delirium coming on immediately after the onset of an attack of typhoid fever; the patient showed great irritability of temper before the onset of the fever, and on the third night was quite delirious and excited, singing, shouting, swearing, and cursing her friends and relations. Once she attempted to jump out of a window, and had to be restrained. In her case there was a family history of insanity, and the sister was delirious for two weeks during an attack of fever. This patient ultimately degenerated into a state of dementia, being dirty in her habits, neglectful of her appearance, pulling her clothes all over her knees, refusing to speak, and in other respects being silly and childish. The bad effects of the exanthemata are well seen in early life in children hitherto intelligent and apt at school, who thereafter exhibit as after-effects of exanthemata a slowness of comprehension, stupidity, and an inability to acquire further education. There are many such cases to be found, and they sometimes succumb afterwards to an outbreak of mental excitement, and require to be sent to asylums. Wherever there is a nervous history in a family, the care of patients suffering from any of the exanthemata should be a matter of serious concern.

Raynaud's Disease.

Raynaud's disease in relation to insanity is perhaps not so frequently met with as might be expected, though cases have

been cited, and the very neurotic and vaso-motor character of the disease places it in very close relation to brain affections. Not only so, but it is also intimately associated with mental changes, emotional disturbances, and disorders of menstruation either as a forerunner or a sequel. The fact also that it is not uncommon in children gives further emphasis to its neurotic character, as also its appearance in the mildest forms in patients suffering from mental disease. I have on several occasions noticed the coldness and pallor of the 'dead finger stage,' especially in women. Dr. Macpherson has described a very remarkable case occurring in a young girl during adolescence (*Journal of Mental Science*, April, 1889). The hereditary tendency to insanity was very strong. The onset of the attack was characterized by mental depression and suicidal impulses. She soon passed into a state of mental excitement, with grandiose delusions. Menstruation had for many months been irregular. The temperature was 98° Fahr., her pulse was 70, and the organs of the chest and abdomen were apparently healthy. Four days after coming to the asylum, she had a cold and pinched appearance; the hands, and the arms up to the elbow, had a mottled blue and red colour. Temperature, 98° Fahr. She now passed into a state of stupor, but was restless, probably from discomfort, if not from pain. Then her feet, and her legs up to the knee, presented the same phenomena. Later the skin assumed a brick-red, congested appearance. On the tenth day of asylum residence, there were noticed purple-black spots on the tips of the first three toes of the right foot. Temperature 98° Fahr. The patient was now unconscious, with stertorous breathing; the remaining toes of the right foot and those of the left became affected, and the disease extended. The patient required to be artificially fed. The congestive colour in all the limbs passed away, the gangrene sloughed, the patient's bodily health improved, and on one day the temperature rose to 100°. Concomitant with the improvement in the bodily health came a gradual return of the acute mania, and finally she recovered mentally, having been insane fully six months. The chief treatment was warmth. She was placed in a room the

temperature of which was 67° Fahr., she was well wrapped in blankets, the arms and legs were encased in cotton-wool, and she was surrounded by hot-water bottles. Internally she was liberally supplied with hot beef-tea and stimulants, in addition to custard diet.

Rheumatism and Insanity.

Rheumatism, especially rheumatic fever, is sometimes associated with insanity. The experience of those who have had much to do with mental disease is, that rheumatism presents itself as an accompaniment or as the precursor of a mental attack. This is particularly noticed in connection with outbreaks of chorea, and I have already described a case in the chapter on the Insanity of Puberty, etc., where rheumatism, chorea, and insanity were interchangeable. As I have also already remarked, rheumatic affections are found in the insanity of lactation. Dr. Clouston has very particularly described what he calls rheumatic insanity, and in 1870 furnished reports of two cases in illustration of this disease. Savage, speaking of insanity in relation to rheumatic fever as a post-febrile state, observes that he has noticed striking moral perversions in patients after recovery from rheumatic fever. These changes in the moral character of the individual would seem to imply that there has been a mental susceptibility—it may be a hereditary mental weakness—not suspected until the attack of rheumatic fever had spent itself. Clouston groups the rheumatic and choreic insanities as one, believing that there is a close connection between chorea and rheumatism, and secondarily, between these and insanity. It seems very natural that in neurotic subjects the rheumatic poison should select the nervous system for its prey, especially the motor centres; but unless its effects are very severe, or there is mental susceptibility, insanity is not likely to supervene.

Cerebral rheumatism has been described by Trousseau, in one case appearing in a drunkard, and in another in a woman who had been insane. He distinguishes six forms of cerebral rheumatism: the apoplectic, the delirious, the

meningitic, the hydrocephalic, the convulsive, and the choreic; but these divisions he regards as somewhat arbitrary. He did not regard the cerebral phenomena as a consequence of metastasis, but as generally owing to some morbid cerebral predisposition, such as previous habits of drunkenness or some former neurosis. One of the cases which he described was a charwoman who had been addicted to spirit-drinking. Her story was given by herself as follows: On the Sunday previous to admission she had, after doing her work, gone to Nôtre Dame to Mass. She could not follow the service as usual, and did not understand it, and at the same time she felt an acute pain in her right shoulder. After church she went to a house to do some work as charwoman, although she felt queer. She did part of her work in a mechanical manner, and then sat down in a stupid state in a dark corner of the kitchen, where she remained silent and motionless. She got into bed, slept well, and woke the next morning speechless. She was evidently distinctly aphasic, and unable to express her wishes to her husband. By-and-by, when she was able to speak, she spoke in a spurting manner. Owing to the threat of one of the lodgers to shoot her husband, she became so frightened that she was mad with fear, and had to be taken to the Salpêtrière three days afterwards, remaining there for thirteen months in a state of fierce mania. In this case the most remarkable circumstance was an irresistible tendency to doze, exactly as if she had been struck with apoplexy. She would begin a sentence well, but by degrees speak less and less intelligibly and rapidly, then stop and drop off to sleep. When shaken sharply, she would wake up, look around with wondering eyes, answer questions clearly, but soon doze off again.

As Trousseau has observed, articular rheumatism has no great tendency to develop cerebral manifestations. However intense the fever and the pain may be, this complaint does not usually give rise to toxic phenomena, to delirium, or to hallucinations: the intellect is unimpaired; and yet some cases do occur in which the rheumatism is complicated with brain symptoms occurring independently of the intensity of the disease and its gravity, as well as of its extent. In such

cases there must be an acquired or inherited nervous or mental predisposition.

A very interesting case, all the more interesting because of its exceptional features, is described by Dr. Clouston. It came on in a woman as the result of poverty, hard work, and lactation. This case shows the relations of insanity, not only with rheumatism, but with chorea. In it rheumatism, in the form of rheumatic pains with slight feverishness, were the first symptoms; then she passed into a state of mental excitement, the rheumatic symptoms apparently disappearing. Choreic movements were associated with the mental excitement; paraplegia followed, and thereafter disappeared; but the chorea appears to have continued for some time after. Hallucinations of sight and touch were present in this case. Chorea, in cases of insanity especially, may be idea-motor, or occur as a result of nervous discharges from the lower reflex centres. From what has been seen of the relations of rheumatism and insanity, it is evident that chorea is not necessarily an accompaniment; but when it is also present, we find in some cases the mental symptoms have a resemblance to the motor, being often explosive, inconsequent, erratic, and ill expressed. Chorea is not necessarily limited to early youth, for Clouston's case was that of a married woman, and cases of post-hemiplegic character are not uncommon. It is probable, however, that when rheumatism is associated with insanity in later life, chorea is more rarely manifested, the neurotic inheritance and susceptibility being less marked.

Sunstroke and Insanity.

Not much is known of this subject, for the reason that sunstroke is an infrequent accident in this country, and is more often likely to affect children, especially infants in arms, than grown-up people. It is unnecessary to go into the distinction between coup de soleil and coup de chaleur, commonly called heat-stroke. It is well to bear in mind that cases of idiocy have been traced to sunstroke, often as the result of carelessness on the part of the nurse, exposing the head and face to the rays of the sun. In the case of

patients becoming insane who have lived in foreign countries —soldiers, sailors, and others—it is a frequent inference rather than a correct statement of fact to say in many that the patient suffered from sunstroke. In the Red Sea it is not uncommon to suffer from the intense heat, and I had one case of an engineer recently under care, a full-blooded man, who suffered so much in this way that he became insane.

Uterine Disease and Insanity.

When so much of mental disease has been attributed in greater or lesser degree to physical disease, it would be surprising indeed if the uterus escaped from such a classification. Ranged on one side are those who believe in the undoubted influence of the uterus and its appendages on sexual emotion and mental processes generally, and on the other side those who regard not only uterine disease, but all physical diseases, as accidents in no way, or only in a slight degree, correlated with mental disease. In the United States a great deal more has been done by women doctors in asylums to investigate the truth of the matter than has been done in this country, and one must confess to a satisfaction in knowing that a difficult and delicate subject has been so thoroughly well handled by medical members of the female sex themselves. We may confess, however, to a certain scepticism regarding the statistics which have been adduced to prove that uterine disorders are an important, and in many cases a critical, factor in the production of insanity.

Dr. Wiglesworth has entered into this matter with his usual thoroughness, and examined a number of cases, post-mortem as well as during life. From the study of these cases, the conclusion at which he arrives is that uterine abnormalities are of more frequent occurrence among the insane than is naturally supposed.

Dr. Wiglesworth cannot help entertaining the opinion that instances must occasionally occur in which the non-recognition of uterine disease, at an early stage, must result in a case at one time evidently curable passing into a state of chronic insanity. It is quite conceivable that

cures have in this way been missed, and it is eminently desirable that something should be done to diminish this possibility. Considering that so much attention has been given to this subject outside asylums, that so many women are continually being ministered to by specialists in women's diseases, and that with all, a number of cases of uterine diseases come to asylums, it is questionable if much good could be done in a great many of these cases, which must necessarily be chronic by the time asylum treatment is thought of. A utero-hypochondria is probably a frequent mental condition in the patients who seek relief from gynæcologists, and it might be much better for some of them if more rigorous mental treatment were substituted, and the hypochondria and hysteria received less sympathy and indulgence.

Undoubtedly many delusions of insane women raise the question whether there may not be some partial explanation at least to be found in the sexual organs. In some hysterical cases there may be delusions entertained by these patients that they have given birth to rats or mice, or other creatures; and in some young girls, not necessarily hysterical, on the suggestion of hallucinations, or owing to nervous or other affections of the sexual organs, the idea of maternity becomes fixed, the patient declaring that she has given birth to a child or children. One of my cases, a girl suffering from post-influenzal insanity, is positive that she has given birth to four children at one time, and that we have taken away and destroyed them. She is subject to hallucinations of hearing, menstruates regularly and normally, and being unmarried, we have inferred, without vaginal examination, that there is no organic disease of the sexual system.

The relation of uterine disease to insanity is more frequently noticed in married women, and especially at the climacteric. The disorders of the menopause, the climax it may be of disorders occurring during the child-bearing period of life, are more likely now to be suggestive to women, in the nervous susceptible condition associated in many cases with 'the change of life.' Chronic metritis, uterine displacements, fibroid tumours, and other conditions, are more likely then,

to give rise to sexual delusions. Be that as it may, I have found sexual delusions most common in women verging on forty, and from forty to fifty-five years of age; delusions of improper intercourse, of being chloroformed and violated, are by no means uncommon. Delusions of pregnancy and of having given birth to children, or of induced labour for malevolent ends, are quite an every-day experience in asylums.

The wildest animal ferocity that I have ever seen, was in a woman with a strain of Kaffir blood in her composition, whose homicidal fury was something terrible, in her paroxysms of excitement over the alleged abstraction of her children by the doctor when she was asleep. The delusions came in the morning on waking, without any regard for the physiological time limit of gestation, without any reasoning process to account for the possibility of her conception of children at intervals of a few days, or their full-time development in so short a period. In her case there was a uterine fibroid. Another case under treatment in the hospital, a patient suffering from chronic phthisis and uterine disease, has the delusion that she has been *enceinte* for three years. There are no outward signs that could by any stretch of the imagination give a suggestion for this delusion. When asked how soon she expects the birth of the child, she replies, 'When the good Lord pleases.'

Ovarian or old maid's insanity was a name given by the late Dr. Skae, of Morningside, to a form which is very rare—I have only seen one in a thousand cases of female insanity—but which so far as the mental symptoms go is very characteristic. There may be reasonable doubts as to the relation of ovarian disease to this form of insanity; but the mental symptoms, whatever their explanation, are stereotyped for all cases. The patient believes she is married, and the unhappy victim of this delusion is a clergyman. We know how often the clergyman is worshipped by many of the female members of his congregation; but when adoration takes the form of insanity, the case is rather unpleasant for the clergyman, especially if he is a married man. The patient I have referred to made the life of her clergyman, a

married man, most unbearable. She declared she was his wife, in the face of the true wife, and not until she was removed to the asylum had he any peace whatever. There she wrote him letters daily, and was in no wise embittered against him because she had been sent to the asylum. She was too weak-minded for that, not sufficiently self-assertive, though she did annoy him when outside. Her letters were irrelevant, rambling, inconsequent. She was otherwise docile, gentle, and adaptable. This form of insanity is most hopeless.

CHAPTER XVIII.

MENTAL DEVELOPMENT RETARDED OR IMPAIRED AS DISTINGUISHED FROM IMBECILITY AND IDIOCY—THE BACKWARD AND FEEBLE-MINDED.

No ideal standard—All children not on the same plane of competence—The data of feeble-mindedness—Physical stigmata—Abnormal development—Abnormal nerve signs—Malnutrition and ill health—Defects of sensation—The examination of the mental condition—Attention—Observation—Time-reaction—Memory—Speech—Moral and emotional character—Sleep.

The ideal of mental perfection is rarely if ever attained. We are accustomed to the truism that 'no man is perfect.' Intellectual ability, emotional stability, moral sensitiveness, volitional control, have no rigid standard of perfection. The whole man is judged with all his parts and attributes appraised together, and we estimate accordingly. At the opposite pole—and the range between the two is wide and unlimited—we get more and more negative results the nearer we come to it.

It has been customary to divide mankind into four classes. Beginning at what may be called the lowest grade or the negative pole, is the idiot, further away the imbecile, still further the lunatic, and last and largest class of all the normal man. This last class, whether studied in the early or latter stages of development or at full maturity, presents a variety of mental constitution and character as numerous as the individuals themselves. They are not all on the same plane of competence, not all equally gifted, nor developing and maturing at the same pace nor in the same directions. Even in the idiot and the imbecile there are manifold diversities and degrees of intelligence.

In our public schools there are standard classes for average boys, and *removes* for the delicate and backward. The careful individualizing of pupils has clearly brought out the fact, never so clearly realized before, that there are differences in boys and girls which the machinery of the old-school *régime* did not allow for. Experience teaches us that some so-called stupid, incompetent boys have been merely slow boys. Sir Walter Scott, James Watt, and Syme were pronounced slow boys; probably the arbitrary and sometimes tyrannical schoolmaster of the past called them something worse. A great deal of attention has lately been given to the subject, and we owe much to Dr. Francis Warner, and the committee of which he has been so active a member, for the very exhaustive investigation which has been made in this matter. There can be no question whatever that it is one of the utmost importance in the interest of future generations; and to the medical profession belongs the responsibility of studying the matter, and advising as to the mental development and education of young people.

The data of feeble-mindedness, backwardness, imbecility, and idiocy have not till quite recently been established with anything like an approach to precision. Hitherto it has been much more easy for a medical man to say that a boy is an idiot than to adduce reasons for this belief; and as to the backward and feeble-minded, the recognition of such cases, and the data on which this recognition is founded, have received very little attention. There is now before us, thanks to Warner, Langdon Down, Shuttleworth, Fletcher Beach, and others, a well-devised system of classical inquiry for all cases, whether of limited or grave defect, which must facilitate classification and educational treatment. It will do more, for these physical and nervous signs are just such tangible, palpable facts as a judge and jury can appreciate, and they ought to be regarded as cumulative evidence of considerable importance.

The committee referred to was appointed jointly by the British Association, the British Medical Association, the Charity Organization Society, the Royal Statistical Society, the Sanitary Institute, and consisted also of foreign repre-

sentatives. In the words of the preface to its report: 'The object of the committee in undertaking this investigation of the mental and physical condition of childhood was to furnish a reliable statement of existing conditions found among the pupils attending public elementary and other schools, and thus to establish a scientific basis for the study of the requirements of child life.' Altogether, separately or in combination, the public bodies referred to have presented statistics relative to 100,000 children.

It was found that 'among 2,961 Jewish children in day-schools, uniformality of development was very marked, there being only 7·5 per cent. of deviations from the normal, and all points in nutrition, nerve action, and mental status appeared more regular among them than in English children, in whom the amount of deviation from the normal was ascertained to be 10·8 per cent.' This latter fact is sufficiently striking to attract attention, and cause us to inquire, What are those deviations from the normal, and what is their pathognomonic significance? The nomenclature of signs adopted by the committee as a basis of inquiry is so exhaustive, and comprises so many minor details, that, with all respect for the committee's finding, one is forced to assume that many of the signs have only a far-fetched significance, and are contributory particles of evidence of minor or doubtful value.

With this reservation, however, we are bound to admit that justified by results, the diagnosis of the examiners, who were strangers to the children, was amply proved. 'The teachers almost universally acknowledged that the dull children had been selected by inspection, and very few undetected cases were subsequently presented by them.' When we consider, therefore, that from this list is excluded all but a very small percentage of idiots, imbeciles, and epileptics, the importance of entering somewhat fully into the subject, and laying down rules for guidance or diagnosis, will be appreciated. It is necessary here only to draw attention to the more evident signs, and those having undoubted meaning in relation to mental capacity and development.

The committee distinguished four groups of signs observed

in the study of children: (*a*) *Defects in development* of the body and its parts, in size, form, or proportioning of parts; (*b*) *abnormal nerve signs*—certain abnormal actions, movements, and balances; (*c*) *low nutrition*, as indicated by the child being thin, pale, or delicate; (*d*) *mental dulness*—the teacher's report as to mental ability was added to the record. This classification does not give any idea of the elaborate detail with which the inquiry was worked out, especially in the first two divisions; but the inquiry into the condition of the special senses, though in some respects adequate in its results, is not so as regards sensori-mental relations, and the amount or character of the mental dulness is insufficiently expressed. In this chapter a wider range of individuals must be considered, for though written more particularly to draw attention to the backward and feeble-minded, to obtain their due recognition and treatment, it must of necessity apply also to the diagnosis of idiocy and imbecility. The difference is one of degree. After considering the more important elements of the classification referred to, attention must be directed to the amount of sensation and the mental condition. These are, after all, the fundamental conditions, although their demonstration is not always so apparent nor so striking as evidence to others.

(*a*) *Defects in development* may be gross or minor in kind. Minor defects are apt to be overlooked; some are not recognised as defects at all; some even are asserted to be evidence of breeding. Fine breeding, however, may go perilously near the border-line, and be classed with genius and degeneration. The study of development—size, proportion, and symmetry—as experience shows, is one which is full of practical interest. This is quite apart from any evidence of the rate of growth, of which probably too much may be made, although it should always be recorded, *i.e.*, the height and weight, and compared with the standard for a given age. The relation of the size of the cranium to the size of the body generally is a still more practical question. Naturally, this is regarded as of great importance, and even in children data of some value may be obtained by head measurement and a study of the cranial conformation.

The following is the standard of the normal in a well-developed child of good potentiality, as given in the committee's report; but it is cautiously added that it is probably too high if deviations therefrom are to be taken as pathological. It is certainly unfortunate for practical use that a lower standard was not aimed at. 'Head circumference at nine months 17·5 inches, at twelve months 19 inches, at seven years 20 to 21 inches. After three years of age 19 inches cranial circumference is too small. In this investigation no head of any age was described as small which was up to a circumference of 20 inches.' The levels when taking the circumference of the head are the frontal eminences anteriorly, and the occipital protuberance posteriorly.

The symmetry of the head is regarded as a point of some value; but we have no precise data to guide us regarding the symmetry of the average cranium, and we know that there are often found post-mortem cranial formations both of the base, the parietes, and the dome which are not strictly symmetrical. We know also that the brain is a most adaptable organ, and asymmetrical conditions of minor character are not correlated to any cerebral defect whatever. If this is true of the cranium and the brain, it must be true of many of the asymmetrical defects of less important parts, some of which are so insignificant as to be unworthy of notice. Want of symmetry of the cranium may, however, be so pronounced as to necessitate irregular brain development, or it may be the result of brain lesion. In cases of rickets it is well always to examine the head and take measurements. In such cases the head is often large.

The size and form of the head give indications also, but conclusions should be drawn guardedly, unless there is very obvious malformation; and one should judge of form, symmetry, and size as the sum total of the whole question, for what the cranium is short of in one direction, may be gained in another, and within limits as already stated, the brain is adaptable. We are apt to arrive at erroneous judgments by merely looking at a man's head. The so-called science of phrenology had much to answer for, because it taught us so much about bumps that were mere outside excrescences,

with no cerebral counterpart. A bad form of head is that which shelves back at a sharp angle from above the eyes, and shelves forward also, though less suddenly, from the occipital protuberance. This is frequently seen in criminal types, and with less angular acuteness in microcephales (small-headed idiots); but though it is the extreme deviation, the angle of deviation varies, and when it comes nearer the right angle in front and the obtuse angle behind, a very serious mistake may be made in gauging the potentiality of the child, if head measurements are not taken. In addition to circumferential measurement, the tape should be taken from mastoid process to mastoid over the summit. The head may show narrowness of forehead, bosses at the ossific centres of the two halves of the frontal bone, over the parietal centres and elsewhere. There may be marked prominence of the vertical suture joining the two frontal bones, a linear boss which is very ugly and gives a suggestion of the prow-shaped forehead of the scapho-cephalic child. In its minor degrees it is often associated with vaso-motor changes externally, and the skin becomes the site of a red blush when excited. It has of itself no mental significance in its milder forms, but is a sign not to be disregarded.

The two extremes in head measurements are the hydrocephalic (large head) and the microcephalic (small head). These do not necessarily mean idiocy or imbecility, and the large head may not be hydrocephalic, though that is the rule, especially if the frontal bone overhangs very perceptibly. The committee found small heads more common among girls, which is contrary to expectation; but they came to the conclusion that, 'where there is no other defect, the mental faculty may be average, but the child usually remains thin and delicate. Such children may in after-life undertake good work and do it, but are more liable than others to exhaustion, migraine, and breakdown of the nervous system.'

It was found that the dolichocephalic (long-headed), the oxycephalic—with elevated conical head—and others with large front and narrower occiput, did not afford data for precise knowledge, without a more detailed examination and inquiry than was possible in such an investigation. It may

here be said that in cases of rickets there is always the possibility of tubercular disease appearing, and mental defect is all the more possible in such cases. One cannot expect the same quality of brain in these cases, and if there appears to be brightness and intelligence, it may be mere precocity or morbid scintillation, with diminishing force as time goes on.

The abnormalities in development of the principal features, the eyes, ears, nose, and mouth, have been studied with much care, and with a regard for every detail. It is well, therefore, to examine these as a part of the system of inspection of children believed to be mentally slow or defective.

The normal eye is neither unduly prominent or depressed, the palpebral fissure not so small as greatly to hide the eyeballs, the transverse axis horizontal, the eyes not close together or far apart, and the eyebrows separate and distinct, not in the form of bristles, and not meeting in the middle line. The upper eyelids should be free from vascular networks or diffuse congestion. From this normal type there are many deviations not in themselves significant, and of no pathognomonic value. It is desirable, however, to make a note of all such deviations, and sum up the total afterwards. Thus, for example, it will be noted that in many cases the meeting of the eyebrows in the middle line is associated with the strumous diathesis, and while many of this class show remarkable mental capacity, it seems to be in compensation for distinct mental defects in the weaklings of the family.

The evidence from several sources is conclusive that defects in the eyeball itself, and in its muscular relations, are so frequent as to necessitate examination in such mental cases. Without the more searching examination of the ophthalmic surgeon in his consulting-room, which would certainly add to the percentage results, it was found that in 100,000 children there were 2,929 suffering from defects of the eyes. These do not include errors of refraction, ophthalmoscopic evidence of defect, or nervous affection of movement, which last will afterwards be referred to. It was found that 1,622 suffered from squint, 644 used convex glasses—evidence of hyper-

metropia, or long sight—142 used concave glasses—evidence of myopia, or short sight—227 suffered from disease of the cornea, 65 from nystagmus, and 66 from ptosis. In lesser degree were noticed unequal pupils, cataract, etc. It is fair to assume from the simple fact that 42 cases of myopia were ascertained on inquiry, in children not using glasses, and also because the inquiry was conducted on a large scale, and without specific examinations, that eye defects are even more common than is here indicated.

More than twenty years ago, the late Professor Laycock, Edinburgh, directed attention to several abnormalities in the development of the ears, and these were studied in relation to various mental states. Since then, a good deal of attention has been given to the subject, and while data have accumulated, practical deductions of scientific certainty can only be contributory rather than conclusive. A well-formed ear must have all the anatomical parts described in text-books—the helix, anti-helix, tragus, anti-tragus, concha, lobe, etc. Yet having these, there may be defects, any of them may be abortive growths; or the helix, instead of curving backwards superiorly, may be a straight line, ending posteriorly in an angular prominence. This is regarded as evidence of atavism by some. The lobe may be absent or defective, and what remains may be adherent to the face; but this by itself has not been found to indicate much.

The size of the ear and the general shape, as also its site in relation to the eye, and its distance therefrom, are of more significance. A large, coarse, hairy ear, with pronounced convexity as seen from behind, is not a good feature, especially if there is vascular discoloration on its surface. The position must give anatomical data as to the development of the base of the cranium, and the size of the cranial vault. If the point of junction of the upper part with the scalp is on a level with the eyebrows, the cranial base is evidently high up, and the cranial capacity so much less. As a rule, it may be taken as evidence of good development if the point indicated is in the same plane as the transverse axis of the eyeball.

Not much can be said regarding the conformation of the

nose as evidence *pro* or *con*. In some idiots we find types of nose that would not disgrace an aristocrat—the remnant, the only evidence left, of a good type now extinct. On the contrary also, we find competent men and women with very insignificant, ill-shapen probosces, and therefore we must have regard to the constitution underlying it all, and study defects of the nasal bones and cartilages in relation to diseases such as scrofula and syphilis.

A good deal may be learned from an examination of the mouth, not merely the palate, of which so much has been written, but the premaxillary region, the submaxillary region, the development of the teeth, the lips, and the apposition of the lips and jaws. From time immemorial, the type given of the idiot has been described as a slavering, dribbling creature, with drooping lower jaw and gaping mouth. The gaping mouth is due to nervous defect, to muscular deficiency, or weakness either in the infra-maxillary or labial muscles, probably in both ; and it is also a sign of stupidity far short of idiocy.

The prominence of the premaxillary region attracts attention at once, especially because it is so suggestive of reversion to a lower type ; besides, it is invariably associated with more or less palatal deformity, and with prominence or protrusion of the incisors. The lower jaw has not attracted particular attention, and yet we are in the habit of judging very much of a man's character from the size and angle of this part of the face. A large jaw, short of the prognathous type, and what is called a square jaw—in other words, a maxilla with a near approach to the degree of a right angle—has been regarded as the type of strength and determination of character. The opposite of this is seen in the sloping lower jaw, with a more or less obtuse angle, meeting in the middle line in front, at a more or less acute angle with its neighbour of the opposite side, and receding at the chin.

While not assuming that much stress should be laid on this kind of formation, I must admit that, combined with premaxillary prominence, I have frequently observed it in families having a strong hereditary neurotic taint, and without the conjunctive stigma mentioned—at any rate, so promi-

nent as has been described, I have still more frequently seen it, though rarely in the same serious connection.

The development of the teeth, as long ago pointed out by Dr. Langdon Down, furnishes valuable indications, and not infrequently the abnormalities of the times and places of their appearance are seen in just such cases of maxillary development as have been described. But not necessarily so, for they may mark abnormal departures by themselves alone in perfectly well-formed upper and lower jaws.

Referring more particularly to what is found in idiocy and imbecility, Langdon Down observes: 'There is a marked postponement in the evolution of the first teeth. Looking over my notes of a very large number of cases, I find that the first dentition is almost invariably postponed. The ease with which dentition is effected varies. Sometimes the teeth are cut so easily that no disturbance of the general health is observed; in others it is the period at which violent convulsive attacks are developed, imperilling greatly the feeble mental endowment of the child.'

In cases of feeble-minded children (idiots and imbeciles) he has observed that 'the primary teeth have a more temporary existence than usual. They are frequently dark, speedily become carious, and their stunted growth is often aggravated by the incessant grinding of the teeth, which is so frequent during the infantile life of such children. I have been curious to ascertain the cause of such grinding. In most cases it appears to be a kind of automatic movement, not depending on the direct influence of the will; one of those rhythmic movements of which there are several among children of this class. In others it would appear to be purposely developed to produce a monotonous sound, which imparts pleasure to the feeble-minded. Not only, however, are the primary teeth ill developed, they are often irregularly developed as to sequence. Nothing but disorder is noticed in their succession' ('Mental Affections of Childhood and Youth').

Speaking for a wider *clientèle* of patients, and using the term 'feeble-minded' in a larger sense, we may traverse the foregoing statement with some interpolations. Thus, in

many neurotic subjects, early rather than late development of the primary teeth may be observed, and in subjects not evidently neurotic the decay of these teeth early is also noticed. The chief point of importance here is the erratic and irregular appearance both as to time and place of the secondary rather than of the primary teeth. This, again, is very noticeable in syphilitic and strumous cases, but the character of the teeth in the former instance speaks for itself.

The various types of palate have received a great deal of attention, and if as anatomical variations they were so regarded, and little more, there would not be much requiring to be unsaid. Langdon Down and Ireland have referred to this subject, and more recently Clouston ('Neuroses of Development') has examined criminal as well as insane types, and drawn some startling deductions. It is more than probable that these deductions are rather far-fetched, and that the data from some non-criminal people, if largely drawn on, would have discounted these conclusions to a considerable extent. I have frequently drawn attention to the presence of broad, well-formed palates in idiots and imbeciles, and placing alongside these cases insane patients who were normal up to a certain age, I have in the latter frequently seen narrower and more vaulted palates. Still further, I have examined sane persons of undoubted intelligence and mental stability, and found in not a few of them palates which, according to these foregoing deductions, had been fixed on the wrong class of people.

The argument, moreover, that these vaulted or saddle-shaped palates indicate a contracted cranial base is founded on the assumption that there is no bony compensation elsewhere, of which we have no proof. The roof of the palate is not by any means equivalent to the base of the brain; in fact, a narrow palate may be associated with a broad base, as the wings of the sphenoid, etc., may be more than usually expanded. Dr. T. Claye Shaw has endeavoured to prove that a highly-arched palate is not a sign of the existence of idiocy or imbecility, and that a study of the palate can afford no clue to the mental faculties. And, assuming it to be true that a contracted cranial base accompanies a vaulted or

saddle-shaped palate, its value is minimized by the fact already stated, that within certain limits the brain is adaptable both in its external displacement and in the relative arrangements of its gray and white matter. The data as to the deformities of palate found in the London schools are insufficient, because they are not classified in quite the same way as Clouston's. The palatal defects noticed amounted to 2,127 in 100,000. This is an exceedingly small proportion, and would seem to justify Clouston's assumption, if the same defects were connoted in both investigations. It must, however, be observed that the London Committee dealt with children still plastic and undeveloped, while Clouston's results were obtained by an examination of adults.

That the formation of the palate is a matter of some importance must not be denied, but to prognosticate that a man's future mental history must be clouded sooner or later, and that a boy will run great risk of mental breakdown during puberty or adolescence because he has a highly arched and narrow—so-called 'nervous'—palate, or, worse still, saddle-shaped palate, with the pommel well marked, is no more logical than to say that a man has heart disease because he suffers from palpitation. It is a contributory sign of perhaps some significance, as indicating a possible nervous taint, but no more can be said for it.

The forms of palate looked for by the London Committee were these: (1) *Palate narrow*—without being otherwise altered antero-posteriorly, or in the roof, the palate may be contracted laterally in the space between the alveolar processes. (2) *V-shaped palate*—pointed more or less sharply at its anterior extremity (premaxilla), the alveolar processes being nearly straight lines, meeting at their anterior extremities at an acute angle. (3) *Palate arched or vaulted,* thus deviating from the normal in the vertical plane with a high roof. (4) *Palate cleft,* a deformity which may affect the hard or the soft palate. (5) *Flat, and horseshoe types.* No observations were offered by the committee as to the relative value of these types.

On the subject of the open mouth, they remark that 'the open mouth in a child usually depends upon the dropping of

the lower jaw. This habitual dropping of the jaw depends upon want of tone in the temporal and masseter muscles, rather than on spasm of the depressors. It may be called to mind that this want of tone is due to lessened stimulus of the motor division of the fifth nerve, whose sensory branches are largely distributed to the meninges. Weakness of this nerve leads to open mouth, irritation of it to tooth-grinding. Of course, this condition of 'mouth open' is only to be looked upon as a nerve sign when the respiratory passages are unobstructed.

Developmental defects are liable to occur in any part of the body structure and conformation, and in any of the organs or functional systems. That many of them—the supernumerary or cervical rib, for example—should be regarded merely as anatomical curios rather than pathognomonic signs goes without saying. Not only so, but many that have any pathognomonic meaning at all have it in proportion to the preponderance of other abnormalities of structure and function.

Of organic defects, the most frequent is in the circulatory system, in the heart and aorta especially, but by no means confined to these parts, for in the vascular arrangement and distribution many striking deviations are noticeable. It is exceedingly probable that in the brain, if we could have an opportunity of studying such cases post-mortem, more or less marked departures from the true anatomical size and relations would be observed. This at least is certain, that in the imbecile and the idiot many remarkable eccentricities of size, asymmetrical arrangement and distribution may be observed; and when these are seen at the base, and particularly in the Circle of Willis and its offshoots, it is easy to understand the lopsidedness of brain and the abnormal deviations of nervous and mental constitution which must ensue. The effects of a congenitally small heart and aorta are seen in the volume and force of the circulation, and, although cold and bluish hands, feet, and other terminal parts are accounted for by defective *vis nervosa*, and by muscular inertia, in not a few cases the heart and aorta have their share in the production of these conditions.

The condition of the respiratory system is not organically defective as a rule, but the *vis nervosa* here as elsewhere is sometimes at a low ebb, and shallow respiration is the result. It may be taken as a rule, which applies to all the other organic parts and connections, that where there is a general deficiency of nervous force, the result must be sluggish activity, slowness of functional processes, and a minimum vital result. It is a well-known fact that in the idiot and imbecile reflex action is much impaired, and, even more than in the lunatic, there may be a phthisical process without outward sign, night sweats, cough, spit, etc., being absent. This serves to illustrate how intimately the nervous system—the reflexes in particular—is implicated in these states, and how important it is from a practical point of view to keep these facts in remembrance.

Many other developmental defects might be added; but, as already observed, they may be mere anatomical curios, and all that is necessary is to direct attention to abnormalities of the spinal column—various kinds and degrees of curvature, spina bifida, etc.; to asymmetrical development of the limbs, perhaps as a result of congenital or infantile paralysis, bone and joint disease; and to asymmetrical parts of the body, such as difference in size of the mammæ, asymmetry of the pelvis, etc.

The Evidence of Nervous Dynamics—Abnormal Nerve Signs.

So far, in dealing with anatomical data, we have had to do with statics—with structure rather than movement, and with evidence the clinical value of which must be difficult to properly estimate. The evidence of movements—clinical dynamics—brings us nearer to the seat of nervous and mental activity, and it is here where considerable results may be looked for, even when the developmental stigmata are by no means striking or apparent. The study of what he calls nerve signs is one which Warner has made peculiarly his own. In observing spontaneous and voluntary movements in childhood and youth, various postures and balances of the body and its parts, he has been able to group a large

number of nerve signs, some of which give clinical data of no small importance.

As we should expect, the face is regarded as the most accurate index of the action of the brain, and this region he conveniently divides into three zones: (1) the *upper*, the frontal above the line of the eyebrows; (2) the *middle*, extending downwards from the line of the eyebrows for a very short distance to the lower margin of the orbits, what may be called the eye zone; (3) the *lower* is the most extensive, and includes the rest of the face. Warner thinks the greatest degree of expression is seen in the frontal region, mainly produced by the action of the frontal and corrugator muscles. Regarding the abnormal nerve signs that may be observed and require to be looked for, the following are notes from the London Committee's report:

'*Expression Defective.*—We may describe the visible muscular action seen in a face, and still there may be an expression in it which entirely baffles description in anatomical terms. Further, a face may be balanced or moved abnormally by the action of certain muscles, and yet it may carry upon it a good expression. We may describe action in the frontal muscles, the corrugators, the orbicularis oculi, etc., and over and above this we have the general expression of the face superadded. Certain terms are useful in describing expression; there may be a fixed expression, want of variation, *i.e.*, one fixed uniform action or balance of muscular tone, or we may have to use more general terms, such as "defective" or "bad." There may be no expression, *i.e.*, none other than that indicated by form or modelling of the features.'

'*Frontals Over-acting.*—The frontal muscles almost always act symmetrically, at the same time and in similar degree; their action produces horizontal creases in the forehead, which may be deep if these act strongly. Sometimes the muscles are seen working under the skin in vermicular fashion, with an athetoid movement; in other cases the action is fine, producing minute creases, and what might be called a dull forehead. This over-muscular action does not necessarily erase expression. Such over-action may be seen in children from earliest infancy upwards; the condition

may be temporary, and having lasted a sufficient number of years to produce creases in the forehead, it may pass away. These muscles are often more quiet when the child is at work, or being talked to, than when let out to play; the mental attitude termed *quiet attention* is that under which the frontal area is the most quiet.'

'*Corrugation.*—Corrugation, or knitting of the eyebrows, is due to over-action or hypertonicity of the corrugator muscles; vertical creases are produced by over-action, and a fine wrinkling of the skin, producing local dulness, is sometimes seen. This sign seems more closely associated than any other single sign with some forms of mental stress, and may be seen in children suffering from the effects of fright, illusions, etc.; it may form part of a fixed, immobile expression. Corrugation may be associated with overaction of the frontals in a similar athetoid defect, producing square creases vertical and horizontal, or, in finer degree, the combined action may produce a dull forehead. When the athetoid condition is present, we cannot judge of the mental state by such expression.'

'*Orbicularis Oculi relaxed.*—In a strong, well-toned face the lower eyelid appears clean-cut and well moulded, and the rotundity of the eyeball and convexity of the lower lid are seen; this sharpness is due to the good tone of the orbicularis oculi. When this muscle is relaxed and toneless, the skin under the lower eyelid bulges forward, and is baggy. This relaxed condition is indicative of fatigue and exhaustion, and is seen in the nerve depression accompanying severe and incessant headaches; these puffy eyes are usually symmetrical. That the condition is muscular is demonstrated by making the patient laugh, when the swollen condition is removed.'

'*Eye Movements defective.*—Some children, when an object is held in front of them and then moved, follow it, not with the movement of the eyes, but with the head, keeping the eyes fixed. In other cases there are restless, uncontrolled movements of the eyes. Both conditions are included under this heading; the former is most commonly met with; the two conditions may co-exist.'

'*Grinning and Over-smiling.*—Grinning or over-smiling is

usually symmetrical, but may be unequal on the two sides of the face. With low-class brain conditions, it is sometimes seen as almost the only facial movement, occurring upon any stimulus as a uniform movement, almost as athetoid in character as the frequent over-action of the frontal muscles.'

'Habitual grinning, and in particular the finer movements of over-smiling, often leave permanent naso-labial creases marked upon the skin. These may remain after the habit has been lost. If the skin be thin, a duplicate or triplicate naso-labial crease may be formed. This is more common in neurotic than in imbecile subjects.'

Further evidences may be looked for in the attitude of children standing and sitting, the gait, the balance of the body and its several parts, and locomotion. In the attitude we can detect want of muscular tonicity, stooping, drooping of the head, limpness and general flaccidity, or the reverse. If a child is made to extend the arms straight out from the shoulders, we may detect weaknesses in the balance of the body as a whole, in the unsustained elevation of the arms, in the balance of the hands. The hands give a very fair index of nervous and mental character—their size and grip, the degree of extension of the fingers, and the position of the thumb. A weak hand is not difficult to recognise, and the nervous hand speaks for itself. The manner of walking should be observed, and the power of endurance in this respect. These also give indications.

The State of Nutrition.—'Persistent defects of nutrition, in spite of good feeding, are symptomatic of defect of original constitution, and are not infrequently associated with mental deficiency' (Shuttleworth). This fact was clearly recognised by the London Committee, and the report bears out that defects of nutrition were more frequently seen in girls than in boys. The girls were more frequently dull, and the boys in larger number per cent. exhibited nerve signs. The state of nutrition, it is scarcely necessary to say, must have an important bearing on the quality of the nervous system, and on the activity and stability of the brain. In this connection regard must be had to all conditions of ill-health in childhood, and the history of the child's ailments and their

nervous and mental effects, as well as their interruption of the progress of education, should not be overlooked. In judging of the nutritive activity of any child, regard must be had to the following points: (1) The type of constitution, for there are naturally small, thin, firm, and hardy children, and, on the other hand, children of full size, but soft and flabby; (2) a pinched face is no proof of malnutrition, nor is a large fat face evidence that the body and limbs are well nourished—the child should be examined all over; (3) removable causes, hygienic and constitutional; (4) the diet of the patient.

The Senses.—While the condition of the special senses is of first importance, it is well here to say a word in passing as to the state of sensation generally. Some children are extremely sensitive, and any peripheral disturbance reacts on the motor system with more or less intensity. It may be only to induce restlessness or twitches; but convulsions are quite possible in extreme cases. A history of such may, of course, have a grave meaning in considering the mental prognosis. Other children are lethargic, in the sense that they are not easily disturbed by sensory stimuli, and this may be so marked as to approach to anæsthesia. Both examples are extremes, and require to be kept in view.

The study of the special senses is of necessity a fruitful means of observation. The gateways of knowledge, as they have been called, must be intact and functionally acute in order to increase education and mature mental development. In the study of the degree of mental development and activity of a child, the examination therefore would be manifestly incomplete if the conditions of the special senses were left out of account. By testing them we are able to estimate their range of receptiveness, and the reaction-time of mental processes.

A backward boy, who is the despair of his parents, who can apply himself for only short periods at a time to his lessons, and makes little progress on account of easily induced fatigue, may be suffering from inherent weakness of brain, or the headaches of which he complains may be due to eye-strain, and the mental fatigue may be a result of them. In

all doubtful cases, therefore, it is well to examine the eyes, and in cases of squint, astigmatism, myopia, and hypermetropia a competent oculist should be consulted.

Deafness is a condition which we notice from time to time as an episode in the development of mental cases, an episode sometimes of grave significance. Deaf boys always look stupid, and are frequently backward or feeble-minded. The degree of deafness and the cause of it have to be taken into account, and also its relation to the function of speech. Apart altogether from the case of deaf-mutes, deafness short of absolute inability to hear must have a delaying influence in speech development. If all apparently stupid boys had their hearing tested, and where impaired successfully attended to, there is no question that education would be more rapid, and the dull boy would brighten up in intellect and expression, and improve in speech.

What has just been said on this subject might be amplified; but there is no occasion for further remark than this, that every doubtful case should be examined most particularly regarding the acuteness and the all-round receptiveness of the special senses. Defects of touch, smell, and taste are less noticed; but *pro tanto* they are contributory causes of mental deficiency. Of these three touch is most important, then smell and taste; and it is astonishing how much can be learned by the exercise of the sense of touch alone.

The Examination of the Mental Condition.—This it is which gives the actual diagnosis of the degree of mental dulness, slowness, or backwardness. The physical stigmata to which I have directed so much attention, the nervous signs, the state of nutrition, and the acuteness of the special senses, may directly or indirectly assist in explaining the reasons of this mental deficiency; but the diagnosis of the amount of the defect is of importance with a view to treatment, and, having applied treatment, in enabling us to judge from time to time to what extent, if any, the defect is being removed.

It must again be repeated that the pace of education and mental development is not the same for all boys and girls, and while it may be useful to compare a given case with different boys of varying ages, so as to measure the rate of

mental development, no arbitrary conclusion should be drawn from this alone. Take for example two boys in the same class at school—and the following is taken from life. One is six years old, the other seven and a half years of age. The younger boy, B., is smaller for his age, but well knit, hard and wiry, and first favourite in the playground. A. is larger for his age, ruddy, softer, given to mooning about rather than play. B. is dux; A. is dunce. The schoolmaster promises B. a shilling if he keeps at the top of his class all day. He wins the prize, but the master has a short memory, and B. is too shy to remind him. A. offers to do so provided he gets half the money. B. agrees. The prize is awarded and divided.

These two boys started life under precisely the same conditions of parentage, home life, and school life—the environment was in no way different. B. forged steadily ahead; A. lagged. B. had morally a different character; he had physical courage, and would never try to justify himself if found in fault, but would take his chastisement manfully. A., of feebler physical and moral courage, and of more sensitive organization, would evade responsibility, and morally was somewhat defective. He was more calculating and observant and far-seeing, but was pronounced a dull, stupid boy, and actually grew up with the idea firmly rooted in his mind that his intellect was below par. The schoolmaster had no good opinion of him, and thrashed him so frequently that the boy got more and more nervous, and was afflicted with a stutter for several years. Even then he was observant enough to recognise the letters he stumbled over, and so to frame sentences as to avoid stuttering at the beginning of a sentence.

A. passed through puberty like other boys; there were no nervous signs; he had still grown ahead of B., but B. now began to stretch, and A. made little further progress. B., by the way, was rather given to talking in his sleep, and would even go about the house in a state of somnambulism. This A. never did. The older boy after puberty began to wake up; he was really more imaginative than his brother; he began to study with an object, and eventually came up alongside his

younger brother, whose pace slowed considerably. The moral and emotional defects of childhood entirely disappeared.

I have gone thus fully into the case of these two boys in order to illustrate the fact that no two boys evolve on precisely the same lines, or equally in all directions, nor at the same pace. Nor must one despair if one boy is morally deficient for the first years of his life, nor be too sanguine because another boy is truthful; it may be that his truthfulness is merely because he cannot think a lie. Again, it should be remembered that up to puberty some boys are very slow at school; but there is nothing in their physical conformation to disquiet their parents, and their general observation is all that can be desired. During the period of puberty boys and girls often come to a standstill educationally, and it is well not to expect much from them for a considerable period about this time; they are all the more likely to make good progress after.

A further point of importance is to judge the boy not merely by the results of school education, for education takes a far wider range than mere school instruction. Many boys who are believed to be trifling all the time may be observing and acquiring to as good purpose as the more attentive and diligent scholars. So long as a boy is getting object lessons, especially in the first years of school life, his senses are being quickened, his faculty of observation is being cultivated, and he is multiplying his knowledge of concrete facts and abstract ideas, to be the foundation on which will afterwards rest much of his book knowledge. The loss of a few years at school at the beginning of a boy's career is not of so much account, and it is surprising what strides he can make later on.

In any inquiry as to the mental condition of a backward boy, or a boy suspected to be feeble-minded, a system should be followed so that nothing of importance would be left out. The first point of clinical importance is to test the time-reaction through the various senses. If the senses have not already been examined, this gives a fair general idea of their integrity. To quicken the sense of pain by pinching the skin will also reveal the temper of the boy, and otherwise also his emotional character, for he may laugh or cry. The

reaction-time will show his mental pace so far as simple observation is concerned.

When the test is applied to more complicated mental processes, the reaction-time may be quicker under some tests than under others; and here becomes evident some special aptitude, as, *e.g.*, for arithmetic, mathematics, poetry, languages. One boy's psychic element in reaction-time is quick for arithmetic, slow for grammar, and quick, again, for seeing the solution of problems in Euclid, while with another the case is just the other way. If the reaction-time is slow in any direction, it must not be inferred that it will always be so, for many boys ultimately excel in those very subjects which are at one time the most difficult for them to comprehend. The reaction-time is also judged of by the responsiveness in school-drill. Here also may be obtained indications as to decision of character—the boys who lead, and those who follow.

The faculty of attention may be difficult to arrest for any length of time, and without this faculty, and that of observation duly applied, education does not make much progress. But it has to be noted whether at all times this faculty is more or less in abeyance. Is the same boy as restless, inattentive, and purposeless at play as at school? What does he do with his recreation-time? These inquiries must be made; and unless he is listless and unimaginative, there may still be good hope for him. As already remarked, attention to the state of the sight will assist negatively or positively in determining the cause of marked inattention.

The memory should be tested. Some boys have marvellous gifts in this way, while others feel it so hard to remember that school-hours are very trying, and they would rather get away from lessons altogether. School children find instinctively that repeating their lessons aloud makes them more easily remembered. This is, again, on the principle of the summation of stimuli; for with some the eye impresses memory more (visual memory), while with others the ear does so (auditory memory). Some, again, require not only these senses to aid memory, but object lessons and associations of ideas as well. It may be found with backward boys that the difficulty is here, the memory being unimpressionable and

unretentive. Every idea requires to be nailed down by some object lesson, and an association of ideas, artificial it may be, has to be inculcated in order to build up a memory of things. It is a most laborious process; but education acquired in this way is most persistent, and such people are said to have good memories. This shows how mistaken notions arise; but it ought to be borne in mind that memory is not equally impressionable on all subjects, and some apparently dull boys remember some things very well.

The speech function may be affected, and slowness of speech or stuttering may be observed. In the latter case the fault is in the motor mechanism of speech; but in the former it is more likely to be in the mental processes, slowness and hesitation of thought, or it may be a faulty memory of words, delaying the utterance of speech. It often becomes worse where the true nature of the defect is not recognised, and not properly attended to; and teachers who lose their tempers with such boys, and those who poke fun at them, deserve to be censured. Such treatment is not only unkind, but serves to perpetuate a condition that may otherwise be temporary and curable. Such boys are often nervous, susceptible, and timid, and this ought to be recognised.

Further examination is not necessary beyond an inquiry into the boy's general character and conduct, his usual temper, emotional disposition, moral attributes, and his sleep. These, of course, are well worthy of attention; but it is not necessary to enlarge further on the subject. It may be useful, however, to bring together the threads of this chapter in the form of the following scheme of clinical examination for all mental cases below par.

(*a*) *Defects in Development.*—(1) Height and weight should be noted, and compared with standard of a given age. (2) Cranial abnormalities in size and form, bosses and ridges. (3) The principal features—the eye, ear, nose, and mouth, position, relation of parts, absence or deformity of the whole or parts, the palate, the premaxillary region, the submaxillary region, the development of the teeth, the form and size of the lips, and the apposition of lips and jaws. (4) Developmental defects in the body or its parts, the heart and circulation, asymmetry, etc.

(*b*) *The Evidence of Nervous Dynamics—Abnormal Nerve Signs.*—(1) Facial expression observed in three zones—above the eyes, on the level of the eyes, below the eyes; the general expression; frontals over-acting; orbicularis oculi relaxed; eye movements defective; grinning and over-smiling; posture, balances, the hands, spine, the gait, locomotion.

(*c*) *The State of Nutrition.*—A general examination required, as also an inquiry as to the previous health and illnesses of the child.

(*d*) *The Senses.*—And to begin with the condition of ordinary sensation; two extremes—the hyperæsthetic and the anæsthetic. A careful examination of all the special senses is important.

(*e*) *The Mental Condition.*—Compare with other boys of different ages, not only as regards school education, but general knowledge. No arbitrary conclusion to be drawn from this alone. Test reaction-time through the various senses; the faculty of attention and observation; memory to be tested by visual and auditory impressions; object lessons and the association of ideas; speech as a motor function, and as a result of mental processes; character and conduct; usual temper; emotional disposition; moral attributes; sleep.

Treatment.

The treatment of the mentally-feeble and backward children must evidently call for much care and discrimination, a more intimate circumspection of child life and habits, and more tact. From what has been already said, several indications for treatment must be obtained.

Although little has been said of moral deficiencies or slowness of moral development, it is necessary to emphasize the necessity for careful inquiry and judicious treatment. The case is well put by Shuttleworth as follows: 'If good moral training be a prime essential in every system of education, it is specially so in the case of mentally deficient children. Not that the mentally-feeble child is by nature morally worse than the ordinary child, but his weakness makes him more pliable, and an evil example—not to say precept—may in his case be specially injurious. . . . As

regards moral discipline, coaxing, not coercion, must be the guiding principle . . . the "cowed" child will be a cowardly child, with no pluck or spirit to advance itself. As Roger Ascham remarks with regard to the ordinary pupil, "He must in no wise be beaten into the hatred of learning," and not only in the scholastic, but in the general management of the mentally-deficient child, love must be the all-pervading principle. At the same time, judicious firmness must be exercised, and consistency in word and deed, combined with tact, are essential to moral influence.' If these instructions are sincerely carried out, the motto *Nil desperandum* may be hopefully entertained in not a few cases, even if progress is slow.

The various physical and nervous defects, the bodily health and malnutrition, must receive attention so far as they are amenable to treatment. Physical education should be pursued with discretion, and 'systems' of gymnastics should not be too rigidly enforced, but altered and adapted to each particular case. Here more than anywhere else does the old saying hold good, *Mens sana in corpore sano*. Rest and sleep should receive their due meed of consideration. Rest in the recumbent position, apart from sleep altogether, is favourable to brain nutrition, for the brain is supplied with more blood, the strain on the nervous system is relaxed, and the mind is refreshed.

The amount of education to be prescribed should be determined by the particular case, the power of attention, activity and retentiveness of memory, the absence of unfavourable nerve signs, and the state of the patient's health. Some boys may be allowed at first to get through one year's average work in two, three, or four years.

The question of the medical inspection of schools and school children need not be discussed here. Our great public schools for the upper classes have their medical officers, and their value as factors in our educational system is undoubted. That a general system for the whole country is necessary has been apparent to many authorities for some time, and that it will be an accomplished fact sooner or later is a reasonable anticipation.

CHAPTER XIX.

IDIOCY AND IMBECILITY.

Ætiology—Syphilis an insignificant cause—Alcoholic influence vaguely determined—Various causes and conditions with which it is associated—Scrofula—Phthisis—Insanity—Epilepsy very potent—Pre-natal—Parturient and post-natal influences—The diagnosis of idiocy and imbecility—Order and method of clinical examinations—Ireland's classifications: (1) Genetous idiocy; (2) microcephalic idiocy; (3) eclampsic idiocy; (4) epileptic idiocy; (5) hydrocephalic idiocy; (6) paralytic idiocy; (7) cretinism; (8) traumatic idiocy; (9) inflammatory idiocy; (10) idiocy by deprivation—Other types: Mongolian, negroid, etc.—Treatment of idiocy and imbecility: Medical, surgical, institutional—The last embraces three factors: Hygiene, administrative discipline, education in school and workshop—The course of proceeding necessary in order to place an idiot or imbecile in a special training school or lunatic asylum.

FROM what has been said in the preceding chapter, it must be apparent that there are infinite gradations in mental deficiency, and that no definition can precisely isolate idiocy from imbecility, and in turn imbecility from feeble-mindedness. Seguin's definition of idiocy, in his work published in 1846 on the moral treatment, hygiene, and education of idiots and other backward children, was thus expressed: 'An infirmity of the nervous system, which has for its effect the abstraction of the whole or part of the organs and the faculties of the child from the normal action of the will.'

Idiocy and imbecility are conditions implying different degrees of intellectual growth, and moral and emotional development, and when either term is used, it is understood that the mental sum-total is minus or plus according as the case is one of idiocy or imbecility. The forms and complications are endless in their diversity, and in order to lead up

to a fair appreciation of the subject, it may be well at the outset of our observations to give considerable attention to the question of ætiology.

Ætiology of Idiocy and Imbecility.

A distinction has been drawn between causation operating prior to birth, at birth, and during infancy. This distinction is open to fallacy, because of the obscurity which involves the family and maternal history in many cases. It is however, one that is continually forced upon us in practice. The parents do not wish to entertain the notion that there is potential idiocy or imbecility in either line of family descent, and are naturally most anxious to discover a post-natal, or even a parturient, explanation of the arrested development. It is, however, the duty of the physician to satisfy himself at least of the real factors in the causation, if at all possible.

The more the ætiology of these defects is studied, the more evident it becomes that a very nice discrimination is necessary in order to apportion to each factor its pathogenetic share in the matter. The causes of idiocy and imbecility are most numerous, and many which we might *a priori* consider as of grave potency are, after the careful observations of several competent observers, found not to be so. It may be by reason of deficient family histories, but syphilis and alcoholic excess do not occupy a prominent place in the table of causation. Shuttleworth, Fletcher Beach, and Langdon Down are agreed that there is as yet no evidence recorded that syphilis contributes its influence in more than 2 per cent. of the cases. This is probably, for obvious reasons, an under-estimate.

Intemperance has been combined with many causes, in some cases as many as five or six. How can we estimate its influence amidst so many? The conjoint observations of Shuttleworth and Fletcher Beach (Tuke's 'Dictionary of Psychological Medicine') made on 1,180 cases taken from the Darenth Asylum case-books show 'that intemperance was combined in 196 with the following causes: Phthisis, insanity, imbecility, epilepsy, syphilis, consanguinity, ex-

citability, chronic neuralgia, abnormal conditions of the mother during pregnancy, premature labour, disease of the brain, and paralysis.' This gives 16·8 per cent.; but when to this is added the further analysis that 'intemperance was combined with *one cause* in ninety cases, the most frequent associations with it being insanity, epilepsy, phthisis, and worry of the mother during pregnancy,' it is clearly demonstrated that 16·8 per cent. is too high an estimate for intemperance *per se*. Further examination of the subject shows that, in proportion to the number of other causes, intemperance increases in its percentage as factor, though the potency must correspondingly diminish as a general rule.

A phthisical, epileptic, or insane family history bulks more largely in the causation of idiocy and imbecility, and the scrofulous constitution must here be taken as counting for a great deal as related to the phthisical, and indicating a low state of general nutrition in which the brain must participate. On this subject Ireland writes ('Idiocy and Imbecility'; London, J. and A. Churchill): 'Perhaps two-thirds, or even more, of all idiots are of the scrofulous constitution. No physician of any experience could fail to notice this on going amongst a number of idiots. The greater part of the work which falls upon the doctor of a training-school for imbeciles consists in the treatment of the different local and general manifestations of the scrofulous diathesis, such as enlarged or suppurating glands, skin eruptions, ophthalmia, otorrhœa, strumous ulcers and abscesses, and fully two-thirds of all idiots die of phthisis.'

The influence of heredity is undoubted, whether the stock from which the idiot or imbecile springs be strumous, phthisical, epileptic, paralytic, insane, or imbecile. These conditions may be interchangeable in the same family tree. The influence of consanguinity has been very much disputed as a cause of hereditary disease apart from idiocy and insanity altogether, and the statistics published which at all bear upon the problem, so far as idiocy and imbecility are concerned, do not appear to be conclusive. The fault lies in the method of statistical investigation pursued. Special tables are usually approximately correct so far as they go,

but they require to be compared with general conditions which are too often assumed or inaccurately estimated.

The health and habits of the parents may naturally be expected to have some relation to the mental result in the offspring, but here also there is a want of unmistakable authority. The drunkenness of the father during the act of procreation has been assigned as a cause. When we consider how often this must occur, considering the wide distribution of drinking habits, and how small the percentage of idiocy from all causes is, one should be guarded in alleging against drunkenness that it is an important factor in this connection. The relative ages of the parents has been discussed as a subject bearing on this inquiry. Great disparity, especially when one parent approaches the climacteric, has been regarded as a condition of ill-omen. According to Shuttleworth and Fletcher Beach (*op. cit.*), '*the old age of the father* in some few cases seems to be a cause of idiotic offspring, and the "Mongol type" is frequently connected with the *advanced age* and impaired functions *of the mother*, more than half of such cases being the last children of a long family.'

The statement of Langdon Down, that first children are affected in one-fifth of the cases, has been discounted by the fact that, as pointed out by Shuttleworth, the average number of a family may be five, and probably is not more. Illegitimacy, ill-health, a mental disturbance during pregnancy, falls, or other accidents at that time, and various other pre-parturient causes, have been adduced and enlarged upon. Of mental disturbance the best example is fright, and on this subject Ireland observes that 'it by no means follows that, because we can indicate a predisposing cause, the shock to the mother could not have been the exciting one. In many cases, however, the fright is the only apparent cause.'

Continuing, he observes: 'I do not think we are entitled to reject such explanations merely because we cannot show how the shock to the nervous system of the mother can arrest the development of the nervous system of the child. . . . In all ages women have believed that fright or extreme distress are dangerous to their offspring, and I see no reason for denying that such influences during pregnancy may in

some cases produce idiocy in the child of healthy parents who would otherwise be born free from mental deficiency.' And, again: 'Baron Percy, a French military surgeon, observed that out of ninety-two children whose mothers had been exposed to the terrors of a tremendous cannonade at the siege of Landau in 1793, sixteen died at the instant of birth; thirty-three languished from eight to ten months, and then died; eight became idiotic, and died before the age of five years; and two came into the world with numerous fractures of the bones of the limbs.'

Of parturient causes, almost any of the abnormal developments of labour might be cited in this connection. The use of instruments has been stated as one of them, but there does not appear to be sufficient evidence to justify this statement, and when we consider how frequently instruments are applied, no more need be said. With the use of instruments there is often, however, a cause which frequently calls for such interference, and this is more likely to have serious effect on the head and brain, viz., tedious or difficult labour. There are here two effects at work—prolonged pressure on the head, and irregular, insufficient nutrition of the child during labour. Asphyxia neonatorum was given in 153 of Dr. Beach's histories, a proportion of 12·96 per cent.; but to this must be added, and it emphasizes the importance of this cause, that labour was tedious or difficult in 322 cases, or about 25 per cent. The figures for asphyxia neonatorum are probably therefore an under-estimate.

It is scarcely necessary to say that premature birth is not a favourable condition to start life with. It has been stated in America that attempts to procure abortion are frequently attended with this result that idiocy is induced. In so far as the induction of premature labour is sure to give the child a very unfavourable start in life, and the fact that mental causes to account for this malpractice are unfavourable to the intra-uterine life of the fœtus, it is quite conceivable that idiocy should result therefrom.

Acquired idiocy or imbecility may appear at any time after birth as a result of causes operating during the years of infancy and childhood. Great stress has been laid on the

crises of dentition as times of anxiety in this respect, but the range of possible causes that may damage the young and tender nervous system in the first years of life is a very wide one. The infant or child is to a very large extent a reflex organism, even when the first evidences of volition have appeared, and the sensori-peripheral nerve-endings, each of them excitable on very slight provocation, are so numerous that the sources of irritation cannot be reckoned. Thus, tremors, spasms, convulsions, are quite possible in any child, and when disease affects it, the nervous system is most liable to suffer.

It may be taken that the following conditions considered seriatim give a fair *résumé* of what may account for acquired idiocy or imbecility. Convulsions take a first place, though many children suffer from them at certain crises, especially during dentition, and neither become epileptic nor idiotic after. The fact, however, that a child has had convulsions is a stigma in its history, that should cause the family physician to inquire very carefully as to its after-development, and advise great caution in its treatment physically and mentally. Sunstroke or heatstroke may in a few instances be credited with the production of idiocy, but parents anxious for the mental integrity of the family stock may make too much of this.

Falls, especially on the head, are also a favourite explanation; but children's falls are so frequent, so much the rule, that very circumstantial evidence—medical preferred—would be necessary to permit of this explanation being accepted. Various cerebral affections, inflammatory, paralytic, acute hydrocephalic, etc., epilepsy, fevers, including the exanthemata, are important causes of idiocy and imbecility.

The Diagnosis of Idiocy and Imbecility.

The diagnosis may appear to be a simple matter, and in a general way this is so; but when we have to put the question to ourselves, Why so? or when we have to give evidence in a doubtful case, it is well to establish clearly our points of diagnosis, and the data on which we rest our opinion. It may be necessary to establish, not only the fact of idiocy,

but also the fact of its congenital origin; for in cases of disputed pauper settlement this latter question is sure to arise.

When a reputed or doubtful case comes under notice, the external appearances are the first to attract notice. We are struck perhaps by defects of development: the patient is short and dwarfed, or there is asymmetry of form, perhaps spinal curvature or club-foot. He may be incapable of progression, except on all fours, just like an average child of nine or ten months. If he is able to walk, there may be a looseness in his gait, a slouching or stooping form, or there may be noticed a slow, leaden gait, or a running locomotion not unlike what we sometimes see in old men. There may, however, as in non-congenital cases particularly, be none of these defects.

The form of the head and the facial features may next attract notice. There is scarcely a conceivable defect that may not be noticed in this class. So much has been written on the subject already that we must here glance rather summarily over it, throwing perhaps fresh side-lights on it by the way. The shape, size, and symmetry of the head are to be examined; the growth of hair, which may be thin and harsh, and the contiguity of the eyes, for in some they are too close, in others too far apart. Other eye defects, strabismus, etc., should be looked for; the size and formation of the ears, and any nasal defect, such as depression, are important. In the idiot and imbecile the mouth gives striking indications, and as so much has been written in the previous chapter regarding them, it will suffice to say that the form of the jaws and palate, the dental arrangement, and the character of the teeth, ought to receive attention. The 'open mouth,' the lips apart, and saliva dribbling over, are noteworthy signs.

The size and power of the limbs is also a diagnostic point, and the grip of the hands should be tested. Some idiots have no more prehensile power than an infant of six months, and as a rule many are more or less deficient in this respect. The muscular movements should be studied, the coarse and fine ones, and here it will be found to what extent co-ordination has developed.

The state of the circulation and the other vegetative systems, and the general nutrition as a whole, should next be examined. The circulation is often feeble, the extremities cold and cyanotic, and there is a tendency to chilblains.

The mental examination is naturally the crux of the matter, for many of the foregoing signs may be attended with fair mental development. Taking as data to guide us what average results we might expect in a child of the same age, we examine accordingly. It may however be evident at the very outset, that we must begin much lower down; but one caution must be given. Do not indulge in foregone conclusions because of anything grotesque or repulsive in the appearance or manner of the patient. A student of idiocy finds before very long that here appearances are more than usually deceptive.

In approaching the mental study of such a case, the first thing we try to do, as a matter of course, is to attract attention, and this we may find it very difficult to do. In a very young infant there is no attention to arrest; as it gets older, the attention flits from point to point, and may be arrested only for a moment. At all events, it is easily distracted. You may find any of these conditions in the idiot, and you may find still more, for the attention may be arrested for so long a time that observation and some amount of education are possible.

Having fixed his attention and asked a question, you estimate the result. Has he understood what was said? If not, is he deaf, or is his faculty of language defective? If the latter, we may next try the language of signs and expression, just as we do with infants, and it is probable that these may convey some meaning to his brain. If, however, the boy answers, we know that the question has reached him, and according to the answer we judge to some extent of his intelligence, and of the faculty of speech. It may be absent owing to congenital deafness, or it may be owing to mental deficiency; the cause may be motor. It may be slow, delayed, guttural. The voice may be pleasant or unpleasant, harsh, or croaking. His knowledge can now be tested, his memory, his arithmetic, and his moral sense. The examination may

result in negatives and disappointments, but in the case of imbeciles there are many encouraging points observed.

The other special senses should be examined. Objects placed before the eyes will test sight, and suggest questions to further test knowledge and mental capacity. In the same way, with the eyes closed, touch may be tested and questions asked. In all these tests we have further opportunities of observing how far the patient has acquired a memory of words, and with what facility he expresses himself. Some repeat words without meaning. Others get to the first stage of speech, names only, while not a few can form sentences, and express their meaning in simple language.

The emotions and the moral character often exhibit perversion or defect; usually what seems perversion is explained by defective intelligence and inhibition. The emotion of fear is excited on the very slightest provocation; anger in many idiots comes in childish passionate explosions. Some idiots are really dangerous, not so much because of their strength as their moral recklessness. They do not merely bite, stamp, swear, and throw things, but cruel, homicidal, fire-raising acts may be committed by them without knowledge or fear of consequences. Self-will and obstinacy are very common, and cunning—very transparent in some cases—is frequently observed. Many idiots, having been in mischief of some sort, reveal the fact before it is suspected, by making groundless accusations against others. The most destructive case I have known committed his ill deeds with such cunning and secrecy that he was often unsuspected, until he gave himself away by accusing someone else.

Destructiveness is a habit which we naturally expect to find, at least in some idiots, and all the mischief of which a boy is capable may be expected, the nature of the mischief being in accordance with the degree of intelligence reached. Destructive habits are seen in many ways. One has a *penchant* for breaking glass, another for tearing clothes or pulling out his own hair. The common sensibility in such a case is much impaired. One such patient was only restrained by the threat that his new clothes, which were very

gay and loud in tone, would be taken away, and he wore a soldier's red coat for a year without destroying it. He must retain the extravagant instincts of some progenitor, perhaps a beau of the olden time, for when his clothes become soiled, he tears them because he cannot cast them off.

Some idiots and imbeciles, on the other hand, are placid, lethargic, or gentle and amenable. They often give evidence of an affectionate disposition, but have strong dislikes. Many are musical in a primitive way, and it is quite common to meet with idiots who can hum or whistle a tune which they have only heard once before. They are often humorous, funny, mischievous, and fond of tricks. Their mimicry leads to their acquiring bad habits rather than good ones, unless they are well looked after in a training-school for this class.

Sexually the male idiot is generally agamous as regards function, and the female idiot is usually sterile. Yet instances are not rare of such women having children.

It is rather a difficult matter to classify idiocy into groups which are distinctive in their causation, physical stigmata, and mental characters. This is what one would naturally aim at; but in default of this ideal, we must accept the best compromise possible. A great many types have been named and described; but for simplicity and practical advantage the classification of Ireland is probably the best, and the one most likely to represent the cases usually met with in general practice. Reference will be made in a few words to some types not included in this classification, which to a large extent is founded on the pathology of the disease.

Ireland's classification includes ten varieties. These are: (1) Genetous Idiocy; (2) Microcephalic Idiocy; (3) Eclampsic Idiocy; (4) Epileptic Idiocy; (5) Hydrocephalic Idiocy; (6) Paralytic Idiocy; (7) Cretinism; (8) Traumatic Idiocy; (9) Inflammatory Idiocy; (10) Idiocy by Deprivation.

1. *Genetous Idiocy.*—This term has been employed to enclose a group which are not the only congenital cases—for microcephalic, hydrocephalic, and other forms may be congenital also—but which, being congenital, have no other distinguishing causation and no uniform pathology. Ireland regards the keel-shaped, or as it is also called, the saddle-

shaped palate as a very common correlation or accompaniment of genetous idiocy, in this respect giving a distinction between genetous and microcephalic idiocy, for in the latter the palate is rarely saddle-shaped.

Having regard to the various causes which may pathologically account for genetous idiocy, the class must be regarded as rather mixed; but certain general characters may be noticed. There is defective physique, in size and quality, a feeble circulation, and a sensory dulness. In some, however, the physical development is very fair, although mentally the defect is extreme.

2. *Microcephalic Idiocy.*—Here one would *a priori* expect to find the lowest depths of idiocy, but it is not always so. Size and quality are two totally different things, and in these little heads of microcephalic idiocy it is remarkable how much intelligence and education is sometimes possible. While this is so, the brain may diminish almost to vanishing-point, and there must be a minimum size compatible with normal intellect, even if we are unable to determine it precisely, and are forced to impose an arbitrary cranial circumference as the dividing-line.

Two lines of head measurement were adopted by Voisin, and to these he attached minimum measurements. He regarded intellectual development as impossible with a head from 11 to 13 inches in circumference, and a measurement from the root of the nose to the posterior border of the occipital bone of 8 to 9 inches. This is much below that given by the London Committee, and certainly errs in an opposite direction; but Voisin so far corrects himself in the following statement: 'that heads from 14 inches to 17 inches in circumference, and from 11 to 12 inches for the arc comprised between the root of the nose and the foramen magnum, are too small for ordinary intelligence' (Ireland, *op. cit.*). These latter measurements really include to a considerable extent what are known as microcephalic idiots.

As with the head, so with the body—it is stunted; but as to other characters there may be much diversity. Though some are bright, lively, restless, and moderately intelligent, and to some extent educable, others are negative in almost

all respects, neither walking, speaking, nor showing any sign of intelligence. This form of idiocy is rare.

3. *Eclampsic Idiocy.*—The natural dread of eclampsia which mothers experience is due not only to the alarming symptoms themselves, and the possibly fatal result, but in part to the fear that epilepsy or idiocy may supervene. The chief risk, however, is the immediate one, that of death, for in a very large proportion of cases eclampsia is neither followed by epilepsy nor idiocy. While usually excited by dentition, it may come on earlier; but at whatever time, the possibility of brain damage resulting must not be disregarded. Two unfavourable results are possible—epilepsy and idiocy. Eclampsic idiocy is to be distinguished from epileptic idiocy by the fact that in eclampsic idiocy the convulsions pass away, and only the brain damage remains to retard mental development.

The prognosis given by Ireland in such cases is unfavourable: 'Though the power of muscular motion as well as the tactile sensibility is generally well preserved, and special sense does not appear to be injured, the intelligence is in a great degree destroyed, and the child remains, comparatively speaking, uneducable. He can be taught more readily to work than to think.'

4. *Epileptic Idiocy.*—Epilepsy excited by dentition or independent of it may occur during any part of childhood, and from what has been written in the chapter on epileptic insanity, on the influence of this neurosis on the mental condition, it will be understood that the later it appears the better. Some very eccentric epileptic histories have been published, and some very remarkable results. It is a moot-point whether the epileptic idiot or imbecile is a good subject for educational treatment compared with other types. It is true that many who take one step forward between fits appear to go two backward after them, but, on the other hand, many cases do exceedingly well, and may pass out of idiocy into the higher states of imbecility.

The epileptic idiot is in some respects a distorted picture of the epileptic lunatic; but there is a degenerate condition which has no counterpart, as a rule, in epileptic insanity.

Irritability here also is the keynote, the fury and passion being if possible, more vehement and outrageous. The physique and strength are frequently better than in most idiot types. Keeping in view that epilepsy is not uncommon without mental defect or disturbance, we ought to recognise the fact that, unless there is grave cerebral impairment, the process of education may go on safely at a slow pace. The fits are the obstacle in many cases, and the more frequently they occur, the more frequent must be the interruptions of the educational course.

Much may be hoped for by successful dieting and hygienic treatment. The usual rules of hygienic treatment apply to the epileptic. The diet should be non-stimulating, and only a little nitrogenous food given. Where scrofula and the phthisical tendency are so predominant, though they affect the epileptic less, perhaps, than other classes, cod-liver-oil should be freely given. In bromide of potassium we have a remedy that by judicious use will lessen the number of the fits, and thus afford longer free spells, during which education may make decided progress.

5. *Hydrocephalic Idiocy.*—This form requires to be distinguished from the large head of rickets, in which the anterior fontanelle is depressed and the head is elongated. In the hydrocephalic type we may have imbecility as frequently as idiocy, for the hydrocephalic condition varies in its position, degree, pressure, and cerebral effects. It is, moreover, astonishing that, even in cases of great brain destruction and arrested development, relatively large mental results are possible.

In the *Journal of Mental Science* (October, 1879) I published a paper entitled 'A Detached Left Occipital Lobe, and other Abnormalities in the Brain of a Hydrocephalic Imbecile.' Within the cranium were found three cysts containing 38 ounces of fluid. Several convolutions were destroyed; there was almost entire absence of the corpus callosum, and the left occipital lobe had no functional connection with the rest of the brain, except a nutritive one. It was of fœtal size, and was attached to the main brain by a mere strip of pia mater.

The patient lived to the age of forty-one; he was illegiti-

mate, and had been utterly neglected. He was born hydrocephalic and hemiplegic, and all his life was deformed and helpless. Incapable of progression in the ordinary manner, he had been accustomed to move about for short distances on all fours, and while in the asylum required to be carried about from place to place.

The measurements were: height 4 feet 6 inches; circumference in the plane of the nipples 29¾ inches; circumference in the plane of occipital protuberance and frontal eminences 24½ inches. The palate was saddle-shaped, the pommel well marked; there were no molars in the lower jaw, and only one in the upper. There were no canines or bicuspids in the upper jaw.

The sight was myopic, and convergent strabismus of the right eye existed. Hearing and taste were unimpaired. The best-developed faculty was memory, and the most exaggerated was fear; thunder, a bath, or being placed in a chair, terrified him. He was afraid of falling even when safely secured in an armchair. He could not read, simply because he had never been taught, not because he wanted memory or a fair share of comprehensive power, for he possessed both.

This was a case of hydrocephalus with imbecility; but a second may be briefly noted, which shows extreme idiocy *sans* intellectual faculties, except of the most rudimentary kind. He is a boy of fourteen years of age, 48 inches in height, with 26 inches circumference in the plane of the nipples, and 22¾ inches circumference of the head. We have a syphilitic history of his case, and we have evidence of congenital syphilis in the patient himself, in the cachexia, the fissures round the mouth and extending well over the cheeks, and the state of the teeth; the upper incisors are not placed laterally, but two in front of the others. He has cataract of both eyes, and disease of the right hip-joint.

This boy has never learned to walk; he can crawl. He shows very little sign of intelligence, though, like a child, he knows when his food is brought to him; faculty of speech there is none, but he makes noises like a child, and amuses himself like an infant a year old.

6. *Paralytic Idiocy.*—Cases arise from time to time of pre-natal or post-natal brain lesion, giving rise to imperfect development and paralysis, usually hemiplegia. Other forms of paralysis, spinal as well as cerebral, occur, and sometimes with the latter is associated epilepsy. The lesion is usually a fixture, and does not extend, so that the rest of the brain, being unaffected by it, may develop to a certain extent. Cases so affected are frequently imbeciles, and the prospect educationally is fairly good. Some, indeed, may be more or less self-supporting.

7. *Cretinism.*—Notwithstanding that this condition is rare in this country, being limited to goîtrous districts, it is interesting ætiologically, and especially so because of its relation to goître and myxœdema. It is found to exist in close valleys in the Alps and elsewhere on the Continent, and is frequently, one might say almost invariably, associated with goître, though some cretins do not appear to suffer from goître.

The physical development is arrested, so that many are short and dwarfish in stature, with swollen belly, thick neck, often goîtrous, heavy face, and stupid expression. The eyes are far apart, the tongue large, and the lips thick. To this description there are exceptions, because there are many stages and varieties of cretinism, and cases have been reported as tall as 6 feet.

8. *Traumatic Idiocy.*—Ireland distinguishes between this and inflammatory idiocy thus: 'Although inflammation is likely to follow a blow on the head, it may be small in comparison to the damage done by the direct injury which the brain experiences from contusion, incision, division of the nervous tissue, or depression of the skull.' The distinction here drawn is one rather of pathological character and extent than of clinical importance, for the amount of mental defect will depend on the extent of the injury. The cases which have been recorded appear to show that imbecility or weak-mindedness is the worst possible result in such cases. Careful inquiry should be made as to the precise nature and extent of the accident, and it is well to ascertain what the personal and family history has hitherto been. The age at

which the accident occurs is also of importance, for in cases a few years old the mental damage is less than if the same accident happened earlier. At the same time, there is more resilience in the younger child, and a less untoward result in the case of minor accidents.

9. *Inflammatory Idiocy.*—This might be called post-febrile, for many cases, of stupidity at least, arise after measles, scarlatina, etc., and inflammation of the middle ear may give rise to it. Ireland is rather sceptical on this point; but in general practice such cases are sure to be met with. Inflammatory idiocy in many cases however is really a sequel of traumatism. The seat, depth, and superficial extent must determine the mental result, and therefore no clinical description of this group is possible, for there may be every possible gradation and variation.

10. *Idiocy by deprivation* is a form of considerable importance. The loss or absence of one or more senses must necessarily mean the occlusion of certain avenues to the intelligence department of the mind, and in this form of idiocy we usually know what requires to be made up in the way of sensory information, so as to bring the mind as near to a normal standard as possible. A remarkable case—the classic case on record—was that of Laura Bridgman, published by the late Dr. Howe, of Boston. It was not a case of idiocy, or even imbecility, and it established two important facts: *First*, that deprivation of senses does not necessarily imply brain defect or mental incompetence; *second*, that by the aid of one sense the brain can be stimulated, the mind exercised and developed, and a remarkable degree of knowledge attained to.

Laura Bridgman was a perfectly normal child for the first years of life. As a result of scarlet fever she lost her senses, except touch and smell, the latter however being impaired. Dr. Howe found her in a little village in the mountains, a bright, lively child of six years, and was so interested in her case that he took her to Boston and had her educated by special methods. He thus describes the course of instruction:

'I required her by signs, which she soon came to under-

stand, to devote several hours a day to learning to use her hands, and to acquiring command of her muscles and limbs. But my principal aim and hope was to enable her to recognise the twenty-six signs which represent the letters of the alphabet. She submitted to the process patiently, but without understanding its purpose. . . . I placed before her, on the table, a pen and a pin, and then, making her take notice of the fingers of one of my hands, I placed them in the three positions used as signs of the manual alphabet of deaf-mutes for the letters *p e n*, and made her feel of them, over and over again, many times, so that they might be associated together in her mind. I did the same with the pin, and repeated it scores of times. She at last perceived that the signs were complex, and that the middle sign of the one—that is, the *e*—differed from the middle sign of the other —that is, *i*. This was the first step gained' (Ireland, *op. cit.*).

The process thereafter, though slow, was steady, and she acquired a fair measure of education, and in her own sphere lived to good purpose, and did much to assist in the education of others afflicted like herself, though not to the same extent, for her case was an extreme one. It must not be supposed that absence of any of the senses is necessarily congenital, or even frequently so. The case of Laura Bridgman and many others prove that post-natal conditions, inflammatory or febrile, may be followed by the loss of one or more senses. At the same time, we have no doubt that a weak diathesis has been subjected to the inflammatory or febrile process, often a scrofulous one, in many cases.

Other Forms of Idiocy.

Mention will be made of these very briefly, for it is unnecessary to do more than enumerate some so-called types that are more ethnological in their interest than of clinical or practical importance.

Though ethnological in its nomenclature, we cannot omit to particularise the Mongolian variety, which is regarded by Langdon Down as very characteristic of 10 per cent. of idiocy. Regarding them, he observes that 'the members of this class

are often the latest born of the family, and are connected with a phthisical ancestry. They are characterized by shortness of stature, their heads are brachycephalic (short-headed), and there is often a remarkable deficiency in the posterior part of the cranium. Their hair is usually sparse and their eyes obliquely placed, with small palpebral fissures, and a great distance between their inner canthi. . . . Their tongues are abnormally long, and have a beefsteak appearance. They have speech, but it is deferred, and always of a guttural character. . . . They are very grotesque, see the humorous side of things. . . . They are all characterized by strong self-will. They have wonderful imitative power, and their love of mimicry is very remarkable, but not more so than their persistent obstinacy' (Tuke's 'Dictionary').

Other forms of idiocy are: (*a*) Negroid, or Ethiopian, of negro type, without negro ancestry, even the most remote; (*b*) Malay type; (*c*) Caucasian; (*d*) Choreic; (*e*) Hypertrophic, due to hypertrophy of cerebral white substance, or inflammatory thickening of bones and fibrous tissue; (*f*) Kalmuc, resembling Mongolian, named and described by Mitchell and Fraser.

Treatment of Idiocy and Imbecility.

It may be accepted as an axiom that the treatment of idiocy and imbecility should be undertaken in a special training-school for such children. Such institutions exist for poor and rich, and an elaborate system is provided, graduated to meet the wants of individual cases. Seeing that the responsibility for such treatment does not lie with the general practitioner, it is merely necessary to glance cursorily at the main principles which regulate it. Before doing so, however, a few observations are necessary on medical and surgical treatment.

Medical treatment may be pursued with a view to improving the general health and strengthening the constitution, and in these respects differs not from the usual treatment of scrofulous and anæmic conditions. Thyroid treatment, with a specific end in view, has been tried in

cretinous cases with apparent success; and encouraging results have been published by Sir Frederick Bateman in the second edition of his little book, 'The Idiot: his Place in Creation and his Claims on Society,' just published.

The surgical treatment of the microcephalic condition, by means of craniectomy, has been recommended and practised. The reason put forward for this is that premature synostosis has caused the arrest of brain development and consequent brain deficiency. It has been recommended by Lannalongue, Keen, Horsley, and others; but Bourneville discourages it, and asserts his certain knowledge, founded on an examination of the skulls of a number of idiots, that premature synostosis is not at all common. These opposing views leave us somewhat in the dark, and this operation will probably be undertaken where the risk of death is not regarded as too serious, although the operation has proved fairly safe and successful.

The means of treatment in institutions are hygienic, administrative, and educational. It needs no argument to convey the truth that light, fresh air, good drainage, good water, and attention to all the laws of health, are even more important for the well-being of the idiot than any other class. The position and surroundings of such institutions, and their structural arrangements, are only determined with these objects kept in view.

The administrative arrangements imply order, method, punctuality, and obedience. This discipline is good, for the young especially, and most of all for the idiot who is erratic, wayward, obstinate, self-willed, and difficult to control and regulate.

The educational system is fixed according to certain principles, and the education of the senses by object lessons is very much made use of, and has a reflex influence in the education of the mind. Great pains are taken in the cultivation of speech, in some cases by lip exercise, as in the case of deaf-mutes. Attention is paid also to moral training; and in some cases hypnotic suggestion has been tried (Voisin in *Revue de l'Hypnotisme*, November, 1888), but nothing important has yet resulted. Various trades and occupations have been taught in these institutions, and some who are not

educable in the ordinary school sense make decided progress in manual or other employment, and may in after-years contribute materially to their own support.

The Course of Procedure necessary in order to place an Idiot or Imbecile in a Special Training-school or a Lunatic Asylum.

To place an idiot or imbecile under control in an institution registered under the Idiots Act, 1886, is a much more simple process than to place a person under control in a lunatic asylum. If an idiot or an imbecile, however, is to be placed under control in a lunatic asylum, and *not* in an institution registered under the Idiots Act, 1886, the same procedure must be gone through as if he or she were an ordinary lunatic.

To place a person under control in an institution registered under the Idiots Act, the following documents must be filled up :

FORM OF MEDICAL CERTIFICATE FOR ENGLAND.

I, the undersigned, , a person registered under the Medical Act, 1858, and in actual practice of the Medical Profession, certify that I have carefully examined ,* an infant [or of full age], now residing at , and that I am of opinion that the said is an Idiot [or has been an Imbecile from birth, or for years past, or from an early age], and is capable of receiving benefit from [the institution (describing it)], registered under the Idiots Act, 1896.

Name _____

Medical Qualification _____

Place of Abode _____

Dated this day of One thousand eight hundred and

* Erase the phrases not required.

FORM OF STATEMENT.

If any particulars in this Statement be not known, the fact to be so stated.

Name of Patient, with Christian Name at length - - - -

Sex and Age - - - - - -

When and where previously under Care and Treatment - -

In any Asylum or Institution - -

Whether subject to Epilepsy - -

Whether Dangerous to others -

I certify that, to the best of my knowledge, the above particulars are correctly stated.

Name _____

Place of Abode _____

_____

[To be signed by the Parent or Guardian of the Idiot or Imbecile, or the Person undertaking and performing towards him the duty of the Parent or Guardian.]

Here, it will be seen, there is no need for a judicial reception order, nor, in fact, any order beyond the medical certificate.

FORM OF MEDICAL CERTIFICATES FOR SCOTLAND.

MEDICAL CERTIFICATE, No. 1.

I, the undersigned, _____,
do hereby certify that I have this day at _____,
in the county of _____, personally examined
_____, and believe _____ to be of unsound mind, and to be capable of deriving benefit from training and treatment in the Institution for the Training of Imbecile Children at

Name _____

Medical Qualification _____

Place of Abode _____

DATED this _____ day of _____ One thousand eight hundred and

FORM OF STATEMENT.

If any of the particulars in this Statement be not known, the fact to be so stated.

1. Christian Name and Surname of Patient at length - - -
2. Date of becoming Chargeable -
3. Sex and Age - - - -
4. Previous Place of Abode - -
5. Place where Found and Examined
6. Whether Imbecile from Birth -
7. When and where previously under Examination and Treatment -
8. Supposed Cause - - - -
9. Whether Deformed, or affected with Bodily Disease - - -
10. Whether able to (1) Speak - -
    (2) Walk - -
    (3) Dress self
    (4) Feed self
11. Whether subject to Epilepsy -
12. Whether Paralytic - - -
13. Whether of Dirty Habits - -
14. Whether Noisy - - - -
15. Whether Destructive - - -
16. Whether any Relative known to be or to have been Insane - -

I certify that, to the best of my knowledge, the above particulars are correctly stated.

*_____

DATED this day of One thousand eight hundred and

In Scotland two Medical Certificates are required, and the sanction of the General Board of Lunacy must thereafter be obtained.

* To be signed by the Inspector of Poor or Other Person Interested.

CHAPTER XX.

THE LEGAL AND CIVIL ASPECTS OF MENTAL DISEASE—THE FUNCTIONS OF MEDICAL MEN IN RELATION TO THESE.

The question of responsibility—The amount not always the same even in the same individual at different times—The McNaughton case: views on criminal responsibility in England and Scotland—Evidence of lunatics—Certificates of insanity with a view to asylum treatment—Rules to guide medical men in granting these—Law as to the treatment of single patients—Law of interference with a lunatic's property in Scotland, England, and Ireland—Certificates of testamentary capacity—Forms in use in England, Scotland, and Ireland—Special home treatment for inebriates.

THE duties of medical men are various: their moral obligations are not few, and no disease draws so much on their time and attention in these respects as mental disease. The reason is not far to seek; mental disease involves the man himself in the fullest sense of the term. It raises questions of responsibility, the freedom of the subject, business capacity, and mental competence in various relations. The question brought home to the medical man is not one merely of the individual patient, the nature of his disease and how best to treat it; but how it affects others, how it affects life and property, and the health of posterity.

RESPONSIBILITY.

The first question, that of responsibility, is a very wide one, and applies to many circumstances of life. All sane men and women are responsible. The law recognises it, the Church affirms it, the individual himself knows it. We cannot, however, dispute the statement that there are

degrees of responsibility, especially when we consider that they may occur as the result of disease, and particularly as the result of mental disease.

The argument has been advanced that the man who inherits a weak self-control, the result of insanity in his ancestors, should be excused, if, seized by an impulse, he commits murder; that the man who inherits a gouty organization, and, when the fit is on him, pitches a bootjack at his dearest friend, should be excused if he puts the blame upon his father; and that the man who inherits an irritable stomach may not be wholly responsible if he relieves himself of his irritability in a torrent of abuse.

Be this as it may, we would like to make excuses, and we are aware of differences in ourselves at different times—of periods of irresolution, of want of moral courage, of excessive irritability, and greater liability to yield to temptation. We recognise in different individuals different constitutions, having temperaments, passions, cravings, peculiar to themselves. We see one man happily placed, so that the sin he would do under other circumstances he is saved from committing, because there is no temptation to do so.

The question of responsibility, as a definite issue, is brought before us in connection with crime and insanity. The law has hitherto been very chary of accepting a plea of insanity as excusing crime; but as there are degrees of insane obliviousness to right and wrong, degrees of self-control, degrees of insane impulse, there must come some day a general recognition of the fact that there must be degrees of responsibility and degrees of punishment.

That the law is slow to recognise this is not surprising, seeing that a tendency to ascribe criminal acts to insanity is becoming so common. Men who would scout the idea of having insanity in their families, hug the notion, search the family records, strain the doctrine of heredity, and proclaim the culprit insane, if he happens to belong to themselves. A few years ago a young man who shot his mother dead was sentenced to only ten years' penal servitude. The plea was heredity and temporary insanity. This is a grading of responsibility, and is a step towards what will inevitably

come sooner or later. Civilization has excuses, and public opinion—sometimes unwise and hysterical—is apt to be clamorous, and because of its volume and importunity is a factor of considerable weight.

To determine responsibility is often a difficult matter, and, as a rule, expert testimony is required; but judges are frequently at a loss when expert testimony is brought forward for both sides of the case, and naturally suspicion arises as to the value of such evidence. It comes to be, therefore, that the common-sense of the general practitioner and the jury are as much relied on as the skill and fence of the specialist, in the opinion of some judges. The decisions that have been given in the present century, the verdicts and sentences, reveal a gradual enlightenment of the legal mind, and an increase of medical influence with the bench; but still we are far from having a definite legal expression of what constitutes responsibility, and a differentiation of its degrees. The latter, of course, is a very difficult thing to determine—that must be admitted; but the principle of differentiation should be approved.

The case which has guided many decisions in the last fifty years is the famous McNaughton case, one of chronic delusional insanity. McNaughton was tried for the wilful murder of Mr. Edward Drummond, the private secretary of Sir Robert Peel. His intention was to kill Peel, and, seeing Drummond coming out of Peel's house, he shot him in the back, believing him to be Peel, and without any known or apparent provocation. There was evidence also that the deed was premeditated. It is interesting to observe the advanced views of that day entertained by Mr. Cockburn, the counsel for the defence. In addressing the jury, he said that this must be regarded not as a case of complete insanity, but of partial insanity, 'what a great French authority had denominated homicidal monomania.' The term 'homicidal monomania' was, however, unfortunate, because it conveys no idea of visible, palpable mental derangement, merely a mania to kill, which judges are naturally suspicious of as exonerating crime.

There was ample evidence to justify this view of the case

in the delusions of persecution which he manifested. He believed he was followed by spies. He went to England to avoid them, then to France; but they were there before him. In other respects he seemed as rational as men in general.

The case was tried by three judges, including the Lord Chief Justice, who submitted the following test question to the jury: Had the prisoner that competent use of his understanding as to know that the act was a wicked and a wrong thing, contrary to the laws of God and man? McNaughton was acquitted, confined as a lunatic, and showed afterwards unmistakable evidence of mental disease.

The point of importance here is the one test by which this case was decided—the test of right and wrong, or to interpret this in legal phraseology as Lord Brougham did, 'The right is when you act according to law, and the wrong is when you break it.' This test is not always so rigidly employed now; for some men know right and wrong who are insane, as in the case of an undoubtedly insane man who murdered his wife, and said that he knew he would be hung for it. He was acquitted on the ground of insanity.

Mr. Justice Stephen, a judge of great authority in such matters, in the course of his charge to the jury at a trial in 1888, gave his views on the subject thus: 'It is said that, according to the law, a man is responsible for his acts when he knows that the act is wrong, and that is true. Now, medical men frequently say that many persons who are really mad do know that the act is wrong. Now, if you will exercise your judgment in the matter, you will probably see that knowing the act is wrong means nothing more or less than the power of thinking about it, the same as a sane man would think about it; the power of attaining to a full conception of the horrible guilt there would be in murder; the power of knowing that you are doing that which will destroy life and your soul, and cause sorrow and terror, and every kind of frightful consequence; the power of thinking about all this—that power which every sane man possesses. That is the law, as I understand it, which by guilt implies the power of discriminating between right and wrong; that

is the test of responsibility' (Tuke's 'Dictionary,' copied from *Western Mail*, March 15, 1888).

This is a fine piece of forensic argument, but it is specious pleading after all. Did the man who murdered his wife, knowing it to be wrong in the eye of the law, possess the power of thinking about it the same as a sane man would, the power of attaining to a full conception of the horrible guilt there would be in murder, or did he realize the full enormity and after-consequences, beyond the fact that he would be hung? Assuredly not. Even when men do know right from wrong, in the legal sense of a breaking of the law, their moral consciousness may be great or small.

Instances occur of men who illustrate to the full the description given by Mr. Justice Stephen, men of keen moral consciousness, men impelled to crime, and terrified at the very thought of it. Such cases are known in the experience of those who have had much experience of mental disease. One gentleman, perfectly rational in all respects, sought asylum protection because of the obsession that he must commit murder whenever he saw a knife.

Macdonald's 'Criminal Law of Scotland' treats of this question in these words: 'Insanity or idiocy exempts from prosecution. But there must be an alienation of reason such as misleads the judgment, so that the person does not know "the nature of the quality of the act" he is doing, or if he does know it, that he does not know he is doing what is wrong. If there be this alienation, as connected with the act committed, he is not liable to punishment, though his conduct may be otherwise rational. For example, if he kill another when under an insane delusion as to the conduct and character of the person, *e.g.*, believing that he is about to murder him, or is an evil spirit—then it matters not that he has a general notion of right and wrong. For in such a case "as well might he be utterly ignorant of the quality of murder." He does the deed, knowing murder to be wrong, but his delusion makes him believe he is acting in self-defence or against a spirit. Nor does it alter the effect of the fact of insanity that the person after recovers.'

In giving evidence in such cases, it must be clearly borne

in mind that speculation and abstract statements are more likely to prejudice the case than otherwise. If there are delusions, probe them thoroughly, and look out for a connection between them and overt acts. The evidence that appeals to the legal mind and to a jury is that which can be talked about as real and tangible—evidence that can be drawn from the patient, if necessary, at any time. It is true that such cogent evidence is not obtainable in all cases, and then the man's whole history, family and personal, must be looked into, and the question asked, Is this crime consistent with his past life? Despite the severe tests already laid down, merciful verdicts are given, where everything has been taken into account, and mental cases of this kind deserve the most careful examination.

If a medical man, owing to the chance that a crime has been perpetrated in his neighbourhood, is called in, and requires to give evidence as to the mental condition of the culprit, he should be particular (1) to take notes while his observations are fresh; (2) to quote the man's words—these represent facts, not theories; (3) to judge of his consciousness of his position; and his memory of what has occurred; to elicit (4), if possible, his explanation, if any; (5) to find out if he has delusions or hallucinations.

When this is done, it is wise to repeat the examination a day later, and collect all the evidence that can be obtained from other sources bearing on the case, so that whether pro or con the evidence *in toto* may decide whether sane or insane. It is convenient here to insert the remark that a lunatic's evidence against another may be taken in a court of law if any medical man can certify that he is mentally competent to give such evidence. In cases of partial insanity this can be done sometimes, also in cases of melancholia, in particular circumstances. On the evidence of a lunatic an attendant has been sentenced for cruelty to a patient.

Interference with a Man's Action or Liberty.

It is here that medical men are most frequently called upon to exercise special legal and civil functions. To interfere with a man's actions is, of course, to interfere with his

liberty in a modified sense; but when interference with liberty is spoken of here, we mean restraint on personal freedom, so that a man is confined, and cannot order his outgoings and incomings as he pleases.

Short of being agents in securing this, medical men find an exercise for their functions in (*a*) undertaking and arranging for private treatment, with more or less restraint on liberty, for which a legal process may not be necessary; (*b*) in certifying as to a man's competence to manage his business and personal affairs; (*c*) in certifying as to a man's testamentary capacity. In addition he may be asked to give a certificate of sanity, or to testify to a lunatic's competence to give evidence in a law-court.

In dealing with all these subjects, it must be remembered that legal formalities and legal use and wont are not the same in all countries, and that even in different parts of the British Isles great diversity of practice and formality obtains. Much that has to be said, however, deals with general principles applicable to all parts of this country; and wherever possible a distinction will be drawn between English, Scotch, and Irish customs.

Certificates of Insanity for Asylum Committal.

At the outset a practical distinction can be drawn between those who are to be sent to asylums at the instance of a public authority and paid for by the rates, so-called pauper lunatics, an unfortunate and misleading term—for many are not real paupers—and those to be sent at the instance of a relative or friend, and paid for out of a private purse, so-called private lunatics. Some medical men decline to grant certificates of lunacy for asylum detention, because of the many vexatious and extortionate actions that have been raised against members of the profession in courts of law. Such actions, however, are not nearly so common as they were ten or fifteen years ago, a special enactment having been passed securing all medical men who shall act *bonâ-fide*, and with reasonable care, from such claims. This applies to England; but in Scotland it is so rare for such actions to be raised that this risk may also be discounted there.

With pauper lunatics there is little or no risk, for obvious reasons, and even needy lawyers on the look-out for speculative cases find such too speculative for their resources. The insane, however, when they recover, may not have entirely lost their feelings of suspicion and distrust, and some are normally quarrelsome and litigious. It is well, therefore, to have a legal guarantee of immunity in doubtful cases before granting a medical certificate.

When a medical man is called in to give a certificate of lunacy, he should keep four cardinal points in view: *First*, how best to see the patient; *second*, how best to draw him out; *third*, if insane, is asylum treatment necessary? *fourth*, if asylum treatment is necessary, how best to certify him.

In the examination of a mental case, a medical man must take care that he is not put in a false position at the outset. The friends are, it may be, so afraid of the patient, and of incurring his anger and displeasure, that they wish to introduce the doctor not as a medical man at all. Or doubtful that the patient may put a curb on his speech and temper if he knows who is the interviewer, they wish him to give himself away, so to speak, before he finds out the true state of affairs.

Now, it is a well-known axiom of asylum practice that the straightforward, honest course is best for the patient in the end; and if the doctor called in happens to be the family doctor, as is frequently the case, there is no reason why he should not see and examine the patient without by his presence or his interrogation suggesting asylum treatment. So long as he does not deliberately mislead the patient, there can be no harm done. In any case, whether the family doctor or not, it should be stated that the doctor has been called in on account of the patient's health. There are exceptions to this rule where stratagem must be tried, as when a man barricades his room or his house against all comers. At the same time let there be no unnecessary evasion.

Before seeing the patient, it is well to be primed with the facts of the case as they may be learned from relatives or others. We should always be observant of the friends as

well, for one never knows if a case is *bonâ-fide*, where all are strangers. The friends, if the case is *bonâ-fide*, and it is rare to find it otherwise, materially assist the medical man beforehand in the preparation of his case. From these he gets the cue, otherwise he might travel very wide of the mark.

Having been introduced to the patient, the next question is how best to draw him out. The busy practitioner should not be in a hurry—'more hurry less speed'—nor should he brusquely plunge *in medias res*. He should be wary, remembering that the patient is likely to be suspicious; and he should not look like a man with an evident purpose. In society the weather is the premier topic of conversation. In the examination of mental cases we must not be artificial, but natural, catching our inspiration from the circumstances of the moment. The golden rule is by tact and patience to gain the patient's favour and allay suspicion. As no two cases are alike, specific rules cannot be laid down; but one is important as applied to patients who talk—do not interrupt; guide them gently, imperceptibly, in a desired channel if you please, but do not abruptly interpose in their garrulous flow.

The third question is, If the patient is insane, is asylum treatment necessary? The first point, then, for us is, to settle in our own minds the question, Is the man insane? This will be discussed under the next head; but assuming that he is insane, is asylum treatment necessary? I have referred to the circumstances in which the medical man is here placed in the chapter on 'Treatment,' and the matter will here be disposed of in a few words. If the patient is in a position to justify it, if the mental attack can be treated in a private house without injury, mentally or physically, to himself or others, and if the friends are agreeable, then asylum treatment is not necessary. If the patient is poor, his case a curable one and urgent, or too severe for unskilled treatment at home, the case is one for an asylum at the earliest possible moment. If the patient is poor, his case incurable, his condition such as can be treated in a private dwelling, requiring kindly care rather than skilled treatment,

he may be provided for in a private dwelling, if such is obtainable. The law as applied to single patients being treated at home or boarded out will be afterwards referred to.

The fourth question, how best to certify a patient, must be looked at from two points of view—the matter and the manner of the certificate. The matter of the certificate, the data of the man's lunacy, is of course all-important; but the data may be all that one could wish for in a strong certificate, and yet the certificate prove invalid because of the manner in which it is filled up. A medical man cannot be too particular in filling up a lunacy certificate, and he should read the side-notes and foot-notes, if any, carefully beforehand, and before he finally lets the paper pass from his hands. The fact that a certificate is carefully, fully, and accurately filled up will of itself go far to establish the *bonâ fide* of the man who grants it.

The matter of the certificate, the data on which a diagnosis of insanity is founded, must be expressed in intelligible English, and must conclusively prove to the justice, judge, or sheriff, that the man is insane. Unfortunately, warrants are granted from time to time on slender grounds, and in a very perfunctory manner; but one never knows when they may be pulled up sharp, and the Commissioners—especially in England, where they are particular almost to the dotting of an *i*—may send back certificates for correction.

The matter of the certificate is included under two heads: (*a*) facts indicating insanity observed by the medical man himself, he having visited and examined the patient separately from any other medical man; (*b*) facts indicating insanity communicated by others. The first series of facts must be the kernel of the certificate, and in arranging them and putting them on paper some skill and circumspection is required. In some instances the facts are few and weak, and they must be made the most of consistent with accuracy; but in these cases it is often possible to strengthen an otherwise weak certificate with stronger 'facts communicated by others.' Some very absurd statements are sometimes put under the first head. The following may serve as warning

examples of 'facts indicating insanity' observed by medical men:

'He says he is a teetotaler, and never tasted drink in his life.'

'He says he was converted six years ago, but has backslidden.'

'He says he would be quite content if he had a cup of tea.'

'He says that he is not married that he is aware of.'

'When I examined the patient, I could detect nothing that would justify his being confined in an asylum; but the facts communicated to me by the attendant are sufficient to show that he is a person that ought to be confined in an asylum.'

I well remember the stereotyped 'facts' that used to be recorded by a country doctor of the old school, whether the case was mania, melancholia, or stupor. The one description did for all: 'Wild, staring, bloodshot eyes, foaming at the mouth.'

To state that the patient is excited, restless, incoherent, is to give facts of a certain value in themselves, but not sufficient to justify the granting of a warrant. To say that the patient has a sad, sullen, or irritable expression, that he will not speak or do anything for himself, are also in the same category. With such small shot, however, if in sufficient amount, a medical certificate may be charged to as good purpose as if it stated delusions or hallucinations.

There is no doubt, however, that the justice or judge can appreciate more clearly such statements as the following: (1) This man has delusions of unseen agency; he says that men are working on him with poison and electricity. He has the delusion that men control his speech and his thoughts, and he has hallucinations of hearing, such as that he hears men saying they will pump dirt into him. (2) Says he is a captain, which is a delusion. Says he is the Duke of Scotland. *Note,* it is not necessary here to add 'which is a delusion,' for the delusion is sufficiently obvious.

It is a good plan, when the facts are strong, to give the patient's own words, and in repeating what he says, if

a delusion is contained in the statement, add, 'which is a delusion,' unless the statement is so absurd and extravagant or insane as to speak for itself.

Under the second head, facts communicated by others, is included the information which may have been obtained prior to seeing the patient. These facts may be stronger than the preceding; but in any case they are contributory in greater or less degree according to the skill with which they are worked into the certificate. It is of great importance to give correctly the name and designation of the person or persons giving such information—not to say his mother, sister, brother, a neighbour, or an attendant. The man's name may be John Smith, and the mother's name by a second marriage Mrs. Webster. He may have many sisters or brothers, neighbours innumerable, and the identity of the attendant might not be an easy matter afterwards.

The manner of the certificate is important. It must be remembered that it is a legal document, a potent weapon against a man's liberty, and it should be regarded as necessitating care in its composition. In the first place, the certificate must clearly and unmistakably identify the man who grants it, and the man against whom it is granted. It won't do for the doctor to give an insufficient name and address, or to state that he has examined Brown, Jones, or Robinson, without saying which of them, where he resides, and what his designation is. In the case of a pauper patient, it must be added after the designation, 'a pauper.'

Several other points might here be referred to. They are the small shot in the form of the certificate, and must not be disregarded. A careful study of the side-notes will keep the certifier correct, and with these side-notes to guide him there is no excuse for a certificate faulty in form. It should be carefully read over before being signed.

Treatment in a private house is restricted and supervised in England and Scotland. In England the law as to single patients is very strict, and prosecutions at the instance of the Commissioners in Lunacy are frequently instituted against those who take private patients for payment without a license to do so. In Scotland a little more latitude is

allowed, although when once a case is officially recognised it is well looked after. The Scotch law is in effect very much the same as the more recent English law on the subject (Sec. XIII. and XIV. of Act 29 and 30 Vict., Cap. 51—Scotland).

SECTION XIII.—Section XLI. of the first-recited Act is hereby repealed ; and in lieu thereof, no person shall receive or keep any person as a lunatic for gain without the order of the Sheriff or the sanction of the Board ; and any person who shall receive into or keep in his house any such person, or any person alleged to be a lunatic, shall, within fourteen clear days thereafter, make application for such order or sanction, provided always that, when the lunatic is a pauper lunatic, such application shall be made by the Inspector of the Poor, and it shall be lawful in such case for the Sheriff to grant his order on one medical certificate. And every such lunatic shall be visited, as often as the Board shall regulate, by a medical person, who shall enter in a book to be kept in such house the date of each visit, and the condition of the mental and bodily health of the lunatic at each such visit ; and any medical person who shall make any such entry without having visited the patient within seven days of making such entry, or who shall knowingly make any false entry in such book, shall be liable in a penalty not exceeding £10 for each offence. And it shall be in the power of the Board to order such inspection and visitation of every such house from time to time as to them shall seem proper. And every person detaining or aiding in detaining any such lunatic, or any person who on inquiry is found to be a lunatic, without the order of the Sheriff or the sanction of the Board, or after such order or sanction has been withdrawn, shall be liable in a penalty not exceeding £20 ; provided that the enactments of this section shall not apply to any case where the Person so received and kept has been sent to such house for the purpose of temporary residence only, not exceeding six months, and under the certificate of a Medical Person, which certificate shall be in the form of Schedule G to the first-recited Act annexed.

SECTION XIV.—Section XLIII. of the first-recited Act is hereby repealed ; and in lieu thereof, if any occupier or inmate of any private house shall keep or detain therein, without the order of the Sheriff or the sanction of the Board, any person as a lunatic, although not for gain, beyond the period of one year, and the malady is such as to require compulsory confinement to the house, or restraint or coercion of any kind, such occupier or inmate shall intimate the case to the Board, and shall state the reasons which render it desirable that such lunatic should remain under private care ; and if the Board shall have reason to believe or suspect that any lunatic, or any person treated as a lunatic, whose case has thus been intimated to them, or of whose case no such intimation shall have been made, has been subjected to compulsory confinement to the house, or to restraint or coercion of any kind, at any time beyond

a year after the commencement of the malady, or has been subjected to harsh and cruel treatment, it shall be lawful for the Board, with consent of one of Her Majesty's principal Secretaries of State, or of Her Majesty's Advocate for Scotland, to authorize and empower any one or more of the members thereof to visit and inspect such lunatic or person detained as a lunatic, and to make such inquiry respecting his treatment, as to such member or members may seem fit; and if on such inquiry it shall appear that such person is a lunatic, and has been so for a space exceeding a year, and that compulsory confinement to the house, or restraint or coercion of any kind, has been resorted to, or that he has been subjected to harsh and cruel treatment, and that the circumstances are such as to render the removal of such lunatic to an asylum necessary or expedient, it shall be lawful for the Board to apply to the Sheriff under a procedure similar to that followed in the cases of dangerous lunatics, and the Sheriff, on being satisfied that the person is lunatic, and has been so for more than a year, and is subjected to compulsory confinement, or to restraint or coercion of any kind, or to harsh and cruel treatment, shall issue his order for the transmission of the lunatic to an asylum, and his detention therein until such time as the Board shall sanction his discharge. And the Sheriff shall grant decree for the expenses of the inquiry and procedure, and also for the maintenance of the lunatic in the asylum, against the parties legally liable for the maintenance of such lunatic.

In England the care and treatment of patients outside of asylums is determined by the following section (315) of the Lunacy Act, 1890: (1) 'Every person who, except under the provisions of this Act . . . for payment takes charge of, receives to board or lodge, or detains, a lunatic or alleged lunatic in an unlicensed house, shall be guilty of a misdemeanour, and shall also be liable to a penalty not exceeding £50. . . . Except under the provisions of this Act, it shall not be lawful for any person to receive or detain two or more lunatics in any house, unless the house is an institution for lunatics or a workhouse. . . . Any person who receives or detains two or more lunatics in any house, except as aforesaid, shall be guilty of a misdemeanour.' The Commissioners have, however, the power to sanction the reception in an unlicensed house of more than one single patient (Section XLVI.). It is necessary, therefore, for those taking responsible charge of a patient for gain in a private house to see that the patient has been duly certified, and that a judicial order has been obtained for his detention.

A medical man cannot certify and take charge of the same patient. It is competent for him to do the one or the other only. The forms and authority for the reception of such a case vary according as (1) the lunatic has been 'so found by inquisition'—in other words, a Chancery patient; (2) the order is a judicial reception order; (3) or an urgency order, which is valid for seven days from date thereof, and is intended to secure and protect the patient while a judicial reception order is being obtained. Ample instruction is given to medical men in Mercier's small monograph 'Lunacy Law for Medical Men,' and those who practise in England, and have to do with cases treated singly, or borderland cases, would do well to consult it, as it contains much useful information.

Certificates of Sanity.

These may be required to set aside any disability which has been raised by a certificate of lunacy, mental or business incompetence, and they are the most difficult to grant, and require the exercise of much caution and common-sense in considering the question at all. It is a much easier thing to certify a man insane than to prove that he is sane. Men reputedly sane are discharged from asylums every day, because they have restrained their speech and otherwise exercised self-control. In cases of alleged illegal detention in asylums, the friends of a patient, or the Commissioners, may require an independent medical examination of the patient, with a view to ascertaining whether he is insane or no. The presumption will be that, if the medical officers of the asylum are acting *bonâ-fide*, they know best, and while a medical man from the outside may, in rare instances, be able to brush some cobwebs from the asylum medical officer's view of the case, it will be well to consult with the asylum physician and give a report rather than a certificate. It is, however, necessary from time to time to grant such a certificate, and all that requires to be said is that great caution should be exercised.

Law of Interference with a Lunatic's Property.

The mere placing a man in an asylum does not give the right to anyone to interfere with his property or effects,

which are practically locked up until he recovers, or until a responsible factor is appointed to deal with them. This latter implies expense, greater in England and Ireland, where the mode of procedure is more formal and cumbrous, than in Scotland. In order to obviate this, attempts may be made to get the lunatic to sign cheques, receipts, etc.; but this is an evasion of the law, and no matter how extenuating the circumstances of the case, such action should receive no countenance from medical men.

The simplest procedure is the Scotch, which is known as the appointment of *curator bonis;* and the expense, which should not exceed £15, is so small as to obviate any necessity for evading the law. A petition for the appointment of a *curator bonis*, with a statement of the lunatic's affairs, may be made by a near relative, or, in the case of there being no relative, anyone interested in the case, an inspector of poor or other official where the patient is nominally a pauper, or even the lunatic himself, but I have never known this done. Until 1880 application had to be made to the Court of Session. Since then, however, the procedure is much less expensive, as the petition and medical certificates can be presented in any Sheriff Court. The medical certificates may be drawn up in this form:

'I, A. B., being a registered medical practitioner and a graduate in medicine of the University of Edinburgh [or a licentiate of the Royal College of Physicians, Edinburgh], do certify, on soul and conscience, that I have this day at C—— (full address), in the County of D——, visited and separately examined E. F.; that I am of opinion that he is a lunatic (or an idiot, or a person of unsound mind), and unable to manage his affairs, or to give directions for their management. Dated at ——, this fifteenth day of April, eighteen hundred and ninety-seven.

(*Signed*) A. B.'

In some cases a statement of the probable duration of the incapacity may be required, but I have never known of this being done.

In England the Court of Chancery may, in the case of certain insane persons with limited means, direct that these

be devoted to their benefit. This is rare; the almost invariable rule is to have a formal inquiry before a lunacy commission. A petition is presented to the Lord Chancellor by a relative of the lunatic, supported by affidavits, medical and non-medical, the former dealing with his mental condition, the latter with his property. The medical affidavits should be full and ample, giving particulars of the mental state, describing its character, and making clear the fact of the man's mental unsoundness. After this an inquiry is held by a Master in Lunacy, who goes and sees the individual concerned, inquires fully into the mental condition and regarding the property of the lunatic, and gives orders how he is to be disposed of, and at what expense. In the case of dependent relatives, he also determines what allowances shall be disbursed to them from the estate.

In Ireland the custom is very much on the lines of the English practice just described; but the Lord Chancellor, where the estate is not worth more than £2,000, or the income not more than £100, may apply it for the lunatic's benefit without inquisition. In Ireland, moreover, the case may go to a jury in a common law court. The Lord Chancellor has considerable latitude in dealing with Chancery cases.

Certificates of Testamentary Capacity.

An insane person may make a valid will; but unless certificates of testamentary capacity have been obtained at the time when the will was signed, the presumption follows that the will is invalid. Men and women may scheme to get wills drawn up so as to obtain certain legacies, and others may scheme to upset them. The testator may be drugged or intoxicated so as to become more pliable in the hands of the plotters. Such being sometimes the case, suspicion may be roused, especially if the testator has been an old person, and the will may be declared invalid in a court of law. Those interested in the provisions of the will are naturally anxious that nothing will be done to upset these provisions afterwards. Family quarrels often lead to later disputes in this respect; and the precaution is now frequently

taken to have certificates of testamentary capacity, one from the family doctor, and the other from a mental physician. This ought to be understood, that there need be no hesitation merely because the testator is insane; for even insane persons may be able not only to make a good will, but to manage property, and give directions for the management of their affairs. It requires less mental capacity to make a valid will than to manage property.

The examination of a would-be testator should be conducted alone if possible; and if not possible, owing to the patient's health or for other reason, the person in attendance should be one not interested in the will. At such a time the relatives or others in attendance must be regarded as people who may consider that they have claims on the testator, and their influence must be entirely cut off for the time being. Bearing this in mind, the patient should be carefully examined, to ascertain with certainty whether he is in an artificial mental state due to alcohol or other inebriant. Mere excitement is, of course, no justification for this conclusion.

It is well when there is excitement, and in old people this is more often noticeable, to wait patiently, and not touch on the special object of the visit at first, for the patient must show at his best as regards memory and judgment. When the subject is broached, it may be discussed in general terms, and the family history may be discussed in order to learn whether undercurrents are at work and where, and in order to estimate the emotional character of the testator. He may show passion or prejudice against members of his family; but it may within certain free limits be quite consistent with a valid will.

The important question is, to be satisfied that he clearly realizes what he commits himself to, knows in particular terms (not necessarily to be expressed in figures) what the contents of the property are, how it is to be disposed of, and to whom. Another point of importance is to test the memory, and here is the opportunity; but it is well to test it more than once, later the same day, or on the following morning. In the examination of such a case, the questions and answers should be written down, and the same ques-

tions repeated at the next visit, the answers being compared. The certificate, for which there is no prescribed form, should be given on soul and conscience, and ought to be accurate as to time and place, name, and the designation of the testator.

The following is the will of a phthisical patient suffering from mania with religious exaltation :

'HARTWOOD,
GLASGOW,
March 19th, 1897.

I the under sined
Mrs. B——
do Bequath first to Dr. Beddell my scotish hymnal
Lady ferguson the Butifully Pictuir of Jesus sitting wearied and wating at the Jacobs Well
Lady Ballantine my Cruch Bible
Miss Denholm Religous Storray Book
Mrs. Lady Riddle My Butiefull Callander with the green Cross on it and the ladyes fase that is on it very much resembles her own a butfull face
My Dauter and Suninlaw all the Rest Between my two kind sisters
Not forgetting all the Poor Patients hear May god land them all in heaven
May god send gernal Booths army hear soon

Mrs. B——
Mrs. G——
Mrs. C——'

Many confidential duties are required of medical men with respect to mental disease. Here medical reticence, loyalty to the patient and his friends, is a first duty. Questions affecting the future of the young may give rise to family disclosures, implying a confidence which must be held sacred. In advising as to the future one must be careful. No man even with the key of science can unlock the door which hides the future, and the evolution of many of our least promising patients may be more gratifying than we have dared to expect. On the subject of marriage and the possibility of the propagation of nervous or mental disease, I know of no

more thankless task than giving advice. The man or woman who inherits potential insanity is just that person who is most eager for marriage, and will not be governed in the choice of a partner. They are those of all others to whom it is no use to preach celibacy. Medical men will be consulted on this subject from time to time. In some cases their advice will be taken, but as a rule it will not.

LUNACY FORMALITIES IN USE IN ENGLAND, WITH INSTRUCTIONS.

TO PLACE AN INSANE PERSON UNDER CONTROL.

Private Patient.

If a person, not a pauper, becomes insane whilst staying with his or her family or friends, who are prepared to take steps to place him or her under control, it may be done in one of three ways :

1. By a judicial order on petition.
2. By an urgency order.
3. By an inquisition in lunacy.

The first method is the one usually adopted.

When this—the judicial order on petition—method is adopted, *a petition*, accompanied by a *statement of particulars*, and by *two medical certificates*, is presented to a judicial authority, who may then, if he sees fit, give the *reception order*.

The petition should, if possible, be presented by the husband, wife, or other relative of the patient. When, however, it is presented by some other person not a relative, the document must set forth *why* husband, wife, or other relative did not sign it, also the connection of the petitioner with the patient, and the circumstances under which he presents the petition.

The judicial authority may be 'the County Court Judge,' 'the stipendiary magistrate,' or a 'justice of the peace.' Not every justice of the peace, however, is competent to make the reception order. Before he can take the position of a 'judicial authority' in these cases, he must be specially

appointed by his brother justices. When a justice is so appointed, he can act in any district without any consideration as to whether the district comes under his ordinary jurisdiction or not.

A *provisional order* may be made by *any* justice, and becomes permanent, if approved and signed by a 'judicial authority' within fourteen days after its date.

The name and address of the nearest justice of the peace, specially appointed under this Act, may be learnt from the magistrates' clerk, whose address may be learnt at the nearest police-station.

It will be noted that the petition is never filled up by a medical man, *as a medical man*, nor can he sign either of the certificates if a relative or connection of his signs the petition.

A statement of particulars must always accompany the petition. The following is the form used:

STATEMENT OF PARTICULARS.

Statement of particulars referred to in the annexed Petition [*or in the above or annexed Order*].

The following is a statement of particulars relating to the said

:

Name of Patient, with Christian Names at length - - -

Sex and Age - - - - -

Married, Single, or Widowed - -

Rank, Profession, or previous Occupation (if any) - - - -

Religious Persuasion - - -

Residence at or immediately previous to the date hereof - - -

Whether first Attack - - -

Age on first Attack - - - -

When and where previously under Care and Treatment as a Lunatic, Idiot, or Person of Unsound Mind - - - - -

Duration of existing Attack - -

Supposed Cause - - - -

Whether subject to Epilepsy - -

Whether Suicidal - - - -

Whether Dangerous to others, and in what Way - - - - -

Whether any near Relative has been afflicted with Insanity - -

Name, Christian Names, and full Postal Addresses of one or more Relatives of the Patient - -

Name of Person to whom notice of Death to be sent, and full Postal Address, if not already given - - - - -

Name and full Postal Address of the usual Medical Attendant of the Patient - - - - -

(*Signed*)_____

When the petitioner or person signing an urgency order is not the person who signs the statement, the following particulars must be added about him or her :

Name, with Christian Names at length.
Rank, Profession or Occupation (if any).
How related to or otherwise connected with the Patient.

THE MEDICAL CERTIFICATES.

Signing certificates of lunacy, as I have already observed, was formerly a matter of serious risk to the medical man ; but since the passing of the Act of 1890 the risk of subsequent legal proceeding, against him is greatly diminished, and may be almost entirely obviated if he has acted in good faith and with reasonable care, as may be seen from the following statutory extract (Lunacy Act, 1890) :

' If any proceedings are taken against any person for signing or carrying out or doing any act with a view to sign or carry out any such order, report, or certificate, or presenting any petition as in the preceding subsection mentioned, or doing anything in pursuance of this Act, such proceedings may, upon summary application to the High Court, or a Judge thereof, be stayed upon such terms as to costs and otherwise as the Court or Judge may think fit, if the Court

or Judge is satisfied that there is no reasonable ground for alleging want of good faith or reasonable care.'

It will be seen from this, that it is always necessary to be very cautious in signing certificates, and also that, when proper caution is taken, there can be very little risk of recrimination—hurtful recrimination—on the patient's part.

Medical practitioners must endeavour in their certificates of insanity to make the evidence as clear as possible, bearing constantly in mind that the document is to be scrutinized by lawyers.

The petition must be accompanied by *two* medical certificates, *each on a separate sheet of paper*.

If possible, one of the certificates must be written by the usual medical attendant of the patient, but when not possible, the reason why must be stated in writing to the judical authority to whom the petition is presented.

In certain cases a practitioner is debarred from signing a certificate, but the only case which may be mentioned here is when the practitioner is related in some way to the patient or petitioner.

The examination on which the certificate is based must be made within a period of seven clear days before the presentation of the petition. N.B.—It is the *examination*, not the *date of signature* of the certificate, which must be not more than seven days apart from the presentation.

Nothing will be said here about filling up the part of the certificate following 'facts indicating insanity,' as what has already been written on the subject must suffice. Even to give a short summary of what might be considered 'facts indicating insanity' would take up unnecessary space, seeing that the subject has already been dealt with in a different relation. It is enough, therefore, to say here that the facts must be cogent, concisely stated, and intelligibly set forth.

The forms of medical certificate in use in Scotland hereafter appended will serve as a guide for England also, although in the two countries they are somewhat different.

LUNACY FORMS IN USE IN SCOTLAND.

25 & 26 *Vict., Cap.* 54, *Sect.* 14.

PETITION TO THE SHERIFF TO GRANT ORDER FOR THE RECEPTION OF A PATIENT INTO AN ASYLUM.

Unto the Honourable the (1) *of the* (2)
of and his Substitutes,—

The Petition of

humbly sheweth that it appears from the subjoined Statement and accompanying Medical Certificates, that

your Petitioner's (3)

is at present in a state of Mental Derangement, and a proper person for treatment in an Asylum for the Insane. May it therefore please your Lordship to authorize the transmission of the said

to the and to sanction admission into the said Asylum.

(*To be signed by the Party applying*) _____

DATED this (4) day of One thousand eight hundred and

STATEMENT.

If any of the particulars in this Statement be not known, the fact to be so stated.

1. Christian Name and Surname of Patient at length - - -
2. Sex and Age - - - -
3. Married, Single, or Widowed -
4. Condition of Life, and previous Occupation (if any) - -
5. Religious Persuasion, so far as known - - - - -

[1] Sheriff or Steward. [2] Shire or Stewartry.

[3] State degree of Relationship or other capacity in which Petitioner stands to Lunatic.

[4] The date of the Petition must be within fourteen clear days following the dates of the Medical Certificates.

6. Previous Place of Abode - -
7. Place where Found and Examined
8. Length of time Insane - -
9. Whether first Attack - - -
10. Age (if known) on first Attack -
11. When and where previously under Examination and Treatment (5) - - - - -
12. Duration of existing Attack -
13. Supposed Cause - - -
14. Whether subject to Epilepsy -
15. Whether Suicidal - - -
16. Whether Dangerous to others -
17. Parish or Union to which the Lunatic (if a Pauper) is Chargeable - - - -
18. Christian Name and Surname and Place of Abode of nearest known Relative of the Patient, and degree of Relationship (if known), and whether any Member of Family known to be or to have been Insane - - -
19. Special circumstances (if any) preventing the insertion of any of the above particulars - -

I certify that, to the best of my knowledge, the above particulars are correctly stated.

DATED this day of One thousand eight hundred and

(*To be signed by the Party applying*)_____

[5] If Patient has been previously in an Establishment, state fact, and date of latest admission or approximation thereto. If never previously under examination or treatment, state fact.

MEDICAL CERTIFICATE, No. 1.

I, the undersigned
being a (1)
and being in actual practice as a (2)
do hereby certify, on soul and conscience, that I have this day, at (3)
in the County of
separately from any other Medical Practitioner,
visited and personally examined (4)
and that
the said is a (5)
and a proper person to be detained
under Care and Treatment, and that I have formed this opinion upon the following grounds, viz.:—

1. Facts indicating Insanity observed by myself: (6)

2. Other facts (if any) indicating Insanity communicated to me by others: (7)

Name and Medical Designation _____

Place of Abode _____

DATED this day of One thousand eight hundred and

[1] Set forth the qualification entitling the Person certifying to grant the Certificate *e.g.*, Member of the Royal College of Physicians in Edinburgh.
[2] Physician or Surgeon, or otherwise, as the case may be.
[3] Insert the Street and Number of the House (if any), or other like particulars.
[4] Insert Designation and Residence, and if a Pauper, state so.
[5] Lunatic, or an Insane Person, or an Idiot, or a Person of Unsound Mind.
[6] State the facts.
[7] State the Information, and from whom derived.

MEDICAL CERTIFICATE, No. 2.

I, the undersigned,
being a (1)
and being in actual practice as a (2)
do hereby certify, on soul and conscience, that I have this day, at (3)
in the County of
separately from any other Medical Practitioner,
visited and personally examined (4)
and that
the said is a (5)
and a proper person to be detained
under Care and Treatment, and that I have formed this opinion upon the following grounds, viz. :—

1. Facts indicating Insanity observed by myself : (6)

2. Other facts (if any) indicating Insanity communicated to me by others : (7)

Name and Medical Designation _____

Place of Abode _____

DATED this day of One thousand eight hundred and

[1] Set forth the qualification entitling the Person certifying to grant the Certificate, *e.g.*, Member of the Royal College of Physicians in Edinburgh.
[2] Physician or Surgeon, or otherwise, as the case may be.
[3] Insert the Street and Number of the House (if any), or other like particulars.
[4] Insert Designation and Residence, and if a Pauper, state so.
[5] Lunatic, or an Insane Person, or an Idiot, or a Person of Unsound Mind.
[6] State the facts.
[7] State the Information, and from whom derived.

CERTIFICATE OF EMERGENCY.

(*This Certificate authorizes the detention of a Patient in an Asylum for a period not exceeding three days without any Order by the Sheriff.*)

I, the undersigned,
being (1)
hereby certify, on soul and conscience, that I have this day, at (2)
in the County of , seen and personally examined
, and that the said
person is of unsound mind, is a proper Patient to be placed in an Asylum, and is in a sufficiently good state of bodily health at this date to be removed to the Asylum at (3)

And I further certify that the case of the said person is one of Emergency.

DATED this day of One thousand eight hundred and

(*The following should be filled up in every case in which a Certificate of Emergency is acted on.*)

I hereby request the Superintendent of the

Asylum to receive therein
to whom the foregoing Certificate of Emergency refers.

Relationship or other capacity in which Applicant stands to Patient _____

Signature and Address _____

Date _____

[1] State Medical Qualification.
[2] State Place of Examination.
[3] State Place at which Asylum is situated.

ORDER TO BE GRANTED BY THE SHERIFF FOR THE TRANSMISSION AND RECEPTION OF THE LUNATIC.

I, (1)
of the (2) of
having had produced to me, with a Petition at the instance of (3)

Certificates under the hands of
and , being two Medical Persons duly qualified in terms of an Act intituled 'An Act for the Regulation of the Care and Treatment of Lunatics, and for the Provision, Maintenance, and Regulation of Lunatic Asylums in Scotland,' setting forth that they had separately visited and examined (4)
and that the said
is a (5)
and a proper Person to be detained and taken care of, DO HEREBY AUTHORIZE you to receive the said
as a Patient into the (6) Asylum
of and I authorize
Transmission to the said Asylum accordingly; and I transmit you herewith the said Medical Certificates, and a Statement regarding the said
which accompanied the said Petition.

DATED [at] this day of
One thousand eight hundred and

To the Superintendent of the (7)
Asylum of

[*Signature*]

1 State whether Sheriff, Sheriff-Substitute, Steward, or Steward-Substitute.
2 State whether a County or Stewartry.
3 Insert Name and Designation.
4 Describe him, and if a Pauper, state so.
5 Lunatic, or an Insane Person, or an Idiot, or a Person of Unsound Mind.
6 Public, District, Parochial, or Private.
7 Public, District, Parochial, or Private.

LUNACY FORMS IN USE IN IRELAND.

FORM D.

FORM OF APPLICATION FOR ADMISSION.

The following Declaration, Forms, and Certificates are to be filled up, perfected, and transmitted to the Resident Medical Superintendent at the time of the Lunatic being sent to the Institution.

No application will be attended to which does not state the Name, Residence, and Occupation, and degree of relationship of the two next male relatives, and the next female relative of the patient (when such exists), according to the annexed Form, when it is possible to give those particulars.

It is requested that a person will accompany the patient to the Asylum, who is able to give the best information respecting his or her disease, former mode of life, etc.; and it is expected that the Lunatic will be properly *clad*.

I. DECLARATION.

County of } I, , of , in the County of (state occupation), do solemnly and sincerely declare that
to wit. } , residing at , in the Parish of and County or City of , is insane, and has been so for , and that the said is destitute, and has no friend who is willing or able to support in a private or other establishment for insane, and that has been a resident in the County or City of for , and that the information in the annexed Forms is correct. And I make this solemn Declaration, conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the Sixth Year of the Reign of His late Majesty King William the Fourth (5 & 6 Wm. IV., cap. 62), intituled 'An Act to repeal an Act of the present Session of Parliament, intituled "An Act for the more effectual Abolition of Oaths and Affirmations, taken and made in various Departments of the State, and to substitute Declarations in lieu thereof, and for the more entire suppression of Voluntary and extra judicial Oaths and Affidavits, and to make other provisions for the Abolition of unnecessary Oaths."'

(Stamp.) Made and subscribed at in said County of , before Me, a Justice of the Peace for said County, this day of , 18 .

Forms referred to in the foregoing Declaration; to be filled up and signed by the friends of the Lunatic:

NAMES OF THE TWO NEXT AKIN TO THE LUNATIC.

Relatives' Names.	Residence.	Occupation.	Degree of Relationship.

I, C—— D——, having read the certificate of E—— F——, of , a duly qualified medical practitioner, and being satisfied that A—— B—— is in such circumstances as to require relief for his proper care and maintenance, and that the said A—— B—— is a lunatic (or an idiot, or person of unsound mind), and a proper person to be taken charge of and detained under care and treatment, hereby recommend the said A—— B—— for detention as a patient in your asylum. Subjoined is a statement of particulars respecting the said A—— B——.

(*Signed*) C—— D——,

A Justice of the Peace for .

STATEMENT OF PARTICULARS.

If any particulars are not known, the fact is to be so stated.

The following is a Statement of Particulars relating to the said

Name of Patient, with Christian Name at length - - - -
Sex and Age - - - - -
Married, Single, or Widowed - -
Rank, Profession, or previous Occupation (if any) - - - -
Religious Persuasion - - -
Residence at or immediately previous to the date hereof - - - -
Whether first Attack - - -
Age on first Attack - - - -
When and where previously under Care and Treatment as a Lunatic, Idiot, or Person of Unsound Mind
Duration of existing Attack - -
Supposed Cause - - - -
Whether subject to Epilepsy - -
Whether Suicidal - - - -
Whether Dangerous to others, and in what way - - - - -
Whether any near Relative has been afflicted with Insanity - - -
Union to which Lunatic is Chargeable - - - - - -
Names, Christian Names, and full Postal Addresses of one or more Relatives of the Patient - -
Name of the Person to whom Notice of Death to be sent, and full Postal Address, if not already given -

(*Signed*)_____

Dated the day of 18 .

CERTIFICATE OF MEDICAL PRACTITIONER.

In the matter of , of [1] , in the County of [2] [3] , an alleged Lunatic. I, the undersigned , do hereby certify as follows :

1. I am a person registered under the Medical Act, 1858, and I am in the actual practice of the Medical Profession.

2. On the day of , 189 , at [4] , in the County of [5] , I personally examined the said , and came to the conclusion that he is [6] , and a proper Person to be taken charge of and detained under care and treatment.

3. I formed this conclusion on the following grounds, viz. :

(*a*) Facts indicating Insanity observed by myself at the time of Examination [7], viz. :

(*b*) Facts communicated by others [8], viz. :

4. The said appeared to me to be in a fit condition of bodily health to be removed to an Asylum [9].

Dated this day of One thousand eight hundred and ninety

(*Signed*) ———————————, of [10] ———————

[1] Insert residence of patient.

[2] County, city, or borough, *as the case may be.*

[3] Insert profession or occupation (if any).

[4] Insert the place of examination, giving the name of the street, with number or name of house, or should there be no number, the Christian and surname of occupier.

[5] County, city, or borough, *as the case may be.*

[6] A lunatic, an idiot, or a person of unsound mind.

[7] If the same or other facts were observed previous to the time of the examination, the certifier is at liberty to subjoin them in a separate paragraph.

[8] The names and Christian names (if known) of informants to be given, with their addresses and descriptions.

[9] Strike out this clause in case of a patient whose removal is not proposed.

[10] Insert full postal address.

Through the kindness of Dr. Oscar Woods I have been enabled to give the foregoing forms; but Dr. Woods writes to me that, although these should be looked on as the ordinary forms of admission, they are not made use of so frequently as might be expected 'on account of the overcrowding of Irish asylums, and for other reasons, chiefly perhaps from the fact that no official is made responsible for the correct filling up of these forms.' The patient is instead made nominally a criminal, and committed on the following form :

COMMITTAL WARRANT OF A DANGEROUS LUNATIC OR A DANGEROUS IDIOT,

To be signed by Two Magistrates sitting together.

In pursuance of Act 30 *and* 31 *Vict., c.* 118.

County of } By Two or more Justices of the Peace in
to wit. } and for said County.

To the Resident Medical Superintendent of the Asylum at

WHEREAS, by Informations sworn before us by (1) of (2) on the (3) day of 18 it has been proved to our satisfaction that (4) of (5) by occupation a (6) has been discovered and apprehended at (7) under circumstances denoting a derangement of mind, and a purpose of committing an indictable crime, that is to say (8)

And whereas we have called to our assistance (9) of (10) who is (11)

And whereas the said (12) has duly examined the said (4) and has duly certified by the Medical Certificate annexed hereto that the said is now a dangerous (16)

And whereas we have seen and examined the said (4) and upon the evidence aforesaid and our view and examination aforesaid are satisfied that the said (4) is now a dangerous (16)

We therefore direct that the said (4) shall forthwith be taken to the said District Lunatic Asylum at (17) which is the Lunatic Asylum for the said County (18) in which County (18) the said (4) was discovered and apprehended as aforesaid.

And we hereby, in Her Majesty's name, charge and command you, the aforesaid Resident Medical Superintendent of the said Asylum, to receive and detain in the said Asylum the body of the said (4) and there safely to keep until removed therefrom, or otherwise discharged by due course of law, and for your so doing this shall be your sufficient Warrant and Authority.

Given under our Hands and Seals, at this day of 18

J.P. Seal.
J.P. Seal.

The attention of the Magistrates is particularly requested to the proceedings required under the provisions of the 10th clause of the Act 30 and 31 Vict., c. 118.

[1] [2] [3] Here state Name and Address of each Informant, and date of each Information.

[4] Here state Name of Lunatic or Idiot.

[5] Here state Place of Abode of Lunatic or Idiot.

[6] Here state Position in Life of Lunatic or Idiot.

[7] Here state Name of Place and County, County of a City, County of a Town, City, or Town, as case may be, in which discovery and apprehension took place.

[8] Here state the facts from which it appears that the person was discovered and apprehended under circumstances denoting a derangement of mind, etc.

[9] Here state Name of Medical Officer.

[10] Here state Address of Medical Officer.

[11] If the Medical officer whom the Justices call to their assistance is the only Medical Officer of the Dispensary District in which the Justices shall be at the time, then fill the blank left at [11] as follows in Italics, and insert at [12] the name of such Dispensary District, and at [13] the County, County of a City, County of a Town, City, or Town in which such Dispensary District is situate, namely, '*The Medical Officer of the* [12] *Dispensary District situate in* [13] *and being the Dispensary District in which we now are.*'

If there is more than one Medical Officer of the Dispensary District in which the Justices shall be at the time, the nearest available Medical Officer of such District is to be called by the Justices to their assistance, and in that event the blank left at [11] is to be filled as follows in italics—inserting at [12] the name of such Dispensary District, and at [13] the County, County of a City, County of a Town, City, or Town in which such Dispensary District is situate, namely: '*The nearest available Medical Officer of the* [12] *Dispensary District situate in* [13] *, and being the Dispensary District in which we now are.*'

If there is no Medical Officer or no available Medical Officer of the Dispensary District in which the Justices shall be at the time, the nearest available Medical Officer of any neighbouring Dispensary District is to be called by the Justices to their assistance; and in that event the blank left at [11] is to be filled up as follows in italics—inserting at [12] the name of the Dispensary District of such Medical Officer, and at [13] the County, County of a City, County of a Town, City, or Town in which such Medical Officer's Dispensary District is situate, and at [14] the name of the Dispensary District in which the Justices shall be at the time, and at [14] the County, County of a City, County of a Town, City, or Town in which the Dispensary District in which the Justices shall be at the time is situate, namely: '*The nearest available Medical Officer of the* [12] *Dispensary District, situate in* [13] *, being a neighbouring Dispensary District to the* [14] *Dispensary District, situate in* [15] *, and in which last-mentioned Dispensary District we now are.*'

[16] 'Lunatic' or 'Idiot,' as case may be.

[17] Here insert name of Asylum.

[18] Or 'County of the City,' or 'County of the Town,' as case may be.

The following Forms must be filled up by the Medical Officer who has personally examined the Lunatic or Idiot:

1. MEDICAL CERTIFICATE.

I certify that whom I visited on day of , and into whose case I specially and personally inquired, is now a dangerous (1) ; and I am of opinion, from the nature of h malady, that he is a fit subject for speedy admission into Lunatic Asylum, under the provisions of the Act 30 and 31 Vict., c. 118, s. 10.

Date 18

Signature of Medical Officer

Residence

Dispensary District

2. STATEMENT OF PARTICULARS OF CASE.

Species of Insanity.	Probable Cause of Derangement.	Prominent Symptoms.	Whether affected with Bodily Disease.	Whether Idiotic or Epileptic.	Facts indicating that the Patient is a Dangerous (2)

I hereby certify that this Form is filled up correctly, to the best of my opinion and belief.

Date 18

Signature of Medical Officer

The following Forms must be filled up by the friends of the Lunatic or Idiot.

If no friends of the Lunatic or Idiot are known, this Form may be filled up by the Police, so far as their information will enable them to do so.

NAMES OF THE TWO NEXT AKIN TO THE LUNATIC OR IDIOT.

Relatives' Names.	Residence and Post Town.	Occupation.	Degree of Relationship.

[1] [2] Here state Lunatic or Idiot, as the case may be.

Age of Lunatic or Idiot.	Religion.	Place of Birth.	Place of Abode.	Occupation or Trade, and whether means of his own.	Whether Single or Married, and if a Female, whether she has had Children.	Whether any near Relative has been Insane.	How long ill, and if violent.	Habits of Life, Temperate or Intemperate, etc.	Education.

Date _____ 18

Signature _____

The asylums are maintained out of a county rate, not a poor rate, and relieving officers are therefore not responsible as in England and Scotland.

There are no special establishments for idiots. Many are in the workhouses.

FORM OF UNDERTAKING FOR THE REMOVAL OF A PATIENT TO BE SIGNED BY THE FRIENDS OF THE PATIENT, OR THE MAGISTRATE, CLERGYMAN, OR OTHER RESPONSIBLE PERSON WHO SIGNS THE APPLICATION FOR ADMISSION.

To the Board of Governors of *District Lunatic Asylum.*

GENTLEMEN,

In consideration of your receiving into and maintaining in the above Asylum as a Patient, I hereby undertake that within one week from my receiving notification from the Inspectors of Lunatic Asylums or the Board of Governors, that the said is no longer a fit person to be accommodated therein, I shall remove the said from the Asylum, and in the event of my failing so to do, I hereby agree to be responsible to the Board for any expense they may incur in having the said removed therefrom, and also for all the costs of his / her maintenance in the Asylum after the expiration of said week, and until he / she shall have been finally removed therefrom.

Signature _____

Dated this day of , 18 .

FORM E.

FORM OF APPLICATION FOR THE ADMISSION OF A PAYING PATIENT INTO THE DISTRICT LUNATIC ASYLUM.

DECLARATION.

County of } I, , residing at , in , do
to wit. } solemnly and sincerely declare that , of , in the County of , has, for some time past, been in a state of Insanity and Mental Derangement; and that the said is unable to pay for care and maintenance, and has no friend who will support the said in a Private Lunatic Establishment, and that has been a resident of the said County of for the last years; and that the annexed Certificates and Forms are, to the best of my knowledge, correctly filled up.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the Sixth Year of the Reign of His late Majesty King William the Fourth (5 & 6 Wm. IV., cap. 62), intituled 'An Act to repeal an Act of the present Session of Parliament, intituled "An Act for the more effectual Abolition of Oaths and Affirmations, taken and made in various Departments of the State, and to substitute Declarations in lieu thereof, and for the more entire suppression of Voluntary and extra Judicial Oaths and Affidavits, and to make other provisions for the Abolition of unnecessary Oaths."'

Declared to by me, _____

Made and subscribed at , in said County

(Stamp.) of , before me, a Justice of the Peace

for said County, this day of , 18 .

_____, Justice.

STATEMENT.

If any of the Particulars in this Statement be not known, the fact to be so stated.

Name of Patient, with Christian Name at length - - - -

Sex and Age - - - - -

Married, Single, or Widowed - -

Condition of Life, and previous Occupation (if any) - - - -

Religious Persuasion, as far as known

Previous Place of Abode - - -

Whether first Attack - - -

Age (if known) on first Attack - -

When and where previously under Care and Treatment - - -

Duration of existing Attack - -

Supposed Cause - - - -

Whether subject to Epilepsy - -

Whether Suicidal - - - -

Whether Dangerous to others - -

Whether found Lunatic by Inquisition, and Date of Commission or Order for Inquisition - - -

Special circumstances (if any) preventing the Patient being examined before Admission separately by two Medical Practitioners - - -

Name and Address of Relation to whom Notice of Death may be sent - - - - - -

(*Signed*)_____

Where the person signing the Statement is not the person who signs the Application, the following particulars concerning the person signing the Statement are to be added, viz. :

Occupation (if any) - - - -

Place of Abode - - - -

Degree of Relationship (if any) or other circumstances of connection with the Patient - - - -

FIRST MEDICAL CERTIFICATE.

I, the undersigned, being a (1) , and being in actual practice as a (2) , hereby certify that I, on the day of at (3) in the County of , (4) separately from any other Medical Practitioner, personally examined (5) , of , and that the said is a (6) , and a proper Person to be taken charge of and detained under care and treatment, and that I have formed this opinion upon the following grounds, viz. :

1. Facts indicating Insanity observed by myself (7) .

2. Other facts (if any) indicating Insanity communicated to me by others (8) .

(*Signed*)_____

*Place of Abode*_____

Dated this day of , One thousand eight hundred and .

SECOND MEDICAL CERTIFICATE.

I, the undersigned, being a (1) , and being in actual practice as a (2) , hereby certify that I, on the day of , at (3) , in the County of , (4) separately from any other Medical Practitioner, personally examined (5) , of , and that the said is a (6) , and a proper Person to be taken charge of and detained under care and treatment, and that I have formed this opinion upon the following grounds, viz. :

1. Facts indicating Insanity observed by myself (7) .

2. Other facts (if any) indicating Insanity communicated to me by others (8) .

(*Signed*)_____

*Place of Abode*_____

Dated this day of One thousand eight hundred and .

[1] Here set forth the qualification entitling the person certifying to practise as a physician, surgeon, or apothecary—*e.g.*, Fellow of the Royal College of Physicians.

[2] Physician, surgeon, or apothecary, as the case may be.

[3] Here insert the street and number of house (if any) or other like particulars.

[4] If this be not the case, erase the words.

[5] A—— B—— of . Insert residence and profession or occupation (if any).

[6] Lunatic, or an idiot, or a person of unsound mind.

[7] Here state the facts.

[8] Here state the Information (if any), and from whom.

NOTE.—Any omission in respect of these particulars will probably render the proceedings invalid and the confinement illegal.

FORM F.

AGREEMENT FOR PAYMENT AND REMOVAL.

To the Resident Medical Superintendent, District Lunatic Asylum.

SIR,

In consideration of your receiving into and maintaining in the above Asylum as a Patient, I hereby agree to pay at the rate of £ per annum, payable in advance by half-yearly instalments for care and maintenance therein, until discharged, and at any time on receiving notification from the Inspectors or Board of Governors of the District Lunatic Asylum that the above-named is no longer a fit person to be accommodated therein, I hereby undertake to remove from the Asylum the said within one week from the date of receiving such notification as aforesaid; and if not so removed within a fortnight, I hold myself responsible to the Board for any expense incurred by the removal of said .

Dated this day of 18 .

Signature _____

It is requested that a person will accompany the Patient to the Asylum who will be able to give the best information respecting the disease, former mode of life, habits, propensities, etc.

SPECIAL HOME TREATMENT FOR INEBRIATES.

The patient must sign, before two magistrates, a form expressing a wish to enter the retreat. Two friends must sign a declaration that they consider the patient an 'inebriate' within the meaning of the Acts. In the case of patients who decline to go in under the Act, all that is required for them to do is to make a written request signed over a sixpenny stamp.

INDEX

A

Aboulia, 66
Acrophobia, 66
Adolescence, insanity of, 253
  clinical illustrations of, 271
  course and prognosis of, 257
  division into three classes, 253
  symptoms of, 254
  treatment of, 258
Agorophobia, 66
Alcohol as a cause of insanity, 281
Alcoholic dementia, 290
  clinical illustrations of, 307
  prognosis and treatment of, 291
  symptoms of, 290
Alcoholic insanity, 280
  varieties of, 283
Alcoholic insanity, chronic, 288
  clinical illustration of, 306
  prognosis and treatment of, 291
  symptoms of, 288
Alcoholic mania, acute, 286
  clinical illustrations of, 301
  prognosis and treatment of, 286
  symptoms of, 286
Anæmia in insanity of lactation, 344
Anergic stupor and dementia, distinction between, 173
Apperception, 15
Artificial feeding, 92
Ascham, Roger, on treatment of defective children, 415
Asthma in relation to insanity, 361

B

Baillarger, on 'folie circulaire,' 157
  on melancholia with stupor, 108
  on statistics of heredity, 72
Baldwin, illustration of weakness of children's memory, 12
Ball, on general paralysis, 197
Bannister, on monomania, 159
Bateman, on thyroid treatment of cretinoid idiocy, 434
Beach, Fletcher, on ætiology of idiocy, 417, 419, 420
  on data of the feeble-minded, 392
Bennett, Hughes, on hysterical insanity, 262
Binz, on action of morphine on nerve cells, 173
Blaise, on myxœdema and insanity, 377
Blandford, on insanity of pregnancy, 315
Bourneville, on microcephalus, 434
Bright's disease, insanity of, 362
  illustrations of, 363
Bristowe, on post-febrile insanity, 381
Bruce, on thyroid treatment, 99

C

Cadell, his case of syphilitic insanity, 296
Cardiac disease, insanity of, 364
Catalepsy, 112
Certificates for treatment of idiots in special institutions, 435
  of insanity, 444
  of sanity, 452
  of testamentary capacity, 454
Charcot, on hysterical insanity, 259
Children, mental development in, 9
  genesis of the emotions in, 11
  senses first in evidence in, 10
Chloral and bromides in puerperal insanity, 338
Chronic alcoholic insanity, 288
Claustrophobia, 66
Climacteric insanity, 263
  clinical illustrations of, 276
  prognosis and treatment of, 265
  symptoms of, 263

Clouston, on alcohol as a cause of insanity, 281
on anergic stupor, 173
on delusional melancholia, 106
on diet of the insane, 93
on epilepsy, 225-234
on 'folie circulaire,' 158
on impulsive insanity, 191
on insanity of Bright's disease, 362
on insanity of diabetes, 366
on insanity of pregnancy, 313
on moral insanity, 187
on phthisical insanity, 378
on prognosis of insanity of adolescence, 257
on rheumatism and insanity, 384
on sense of well-being, 17
on senile insanity, 266, 269
on syphilitic insanity, 394
Consecutive insanities, 360
Circular insanity, 157
Cretinism, 430

D

Dagonet, on epileptic seizures due to alcoholic excess, 282
Delirium ebriosum, 283
Delirium tremens, 284
clinical illustrations of, 193
prognosis and treatment of, 286
symptoms of, 284
Delusions, in mania, 151
sane and insane, 51
varieties of, 55
Dementia, 178
clinical illustrations of, 193
consecutive and organic, 179
Dementia, alcoholic, 290
Dementia and anergic stupor, distinction between, 173
Development, defects in, 394
Diabetes and insanity, 366
Diet of the insane, 93
Dipsomania, 190, 287
clinical illustrations of, 305
Dissolution, law of, 22

E

Echeverria, on marriage of epileptics, 236
Education of mentally deficient children, 414
Environment, law of, 25
Epilepsy with sanity, 222
Epileptic insanity, 223
ætiology of, 224
clinical illustrations of, 237
diagnosis and prognosis of, 233
symptoms of, 225
Esquirol, on monomania, 126
Evolution, law of, 22
Examination of mental cases, 445
Exner, on the law of mental reaction, 174
Exophthalmic goitre and insanity, 367

F

Faculties, musical, artistic, etc., 19
Falret, Jules, on chronic progressive delusional insanity, 130, 136
on epileptic insanity, 229, 231
on 'folie circulaire,' 157
Finger, on syphilitic insanity, 296
Flechsig, on treatment of epilepsy, 235
Folie circulaire, 157
Foville's migrating insane, 132
Foville, on chronic progressive delusional insanity, 134
Fürstner, on senile insanity, 266

G

Garrod, on gout and insanity, 369
General paralysis, causes of, 199
clinical illustrations of, 217
definition of, 197
differential diagnosis of, 213
its stages, 202
mental varieties of, 207
physical signs of, 208
premonitory symptoms of, 201
prognosis of, 215
treatment of, 216
Gooch, on prognosis in puerperal insanity, 332
Gout and insanity, 268
Gowers, on treatment of epilepsy, 235
Greenlees, T. D., on insanity of cardiac disease, 364
Gull, on myxœdema and insanity, 376

H

Hæmatoma auris, 97
treatment of, 98
Hallucinations, in mania, 152
sane and insane, 50
Heredity, 68
the influences of, in early life, 249
Hereditary predisposition, 71
Herter, on treatment of epilepsy, 235
Hoche, Ludwig, on puerperal insanity, 328
Homicide, 65
Howden, on insanity of Bright's disease, 362
Howe, of Boston, on case of Laura Bridgman, 431
Horsley, on microcephalus, 434
Humour, sense of, 19

Hydrocephalic head, 396
Hypochondriacal melancholia, 106
clinical illustration of, 115
Hyslop, on general paralysis, 197
Hysterical insanity, 251, 259
prognosis and treatment of, 262

I

Idiocy, 416
ætiology of, 417
by deprivation, 431
classification of, 425
diagnosis of, 421
eclampsic, 427
epileptic, 427
genetous, 425
hydrocephalic, with illustrations, 428
inflammatory, 431
microcephalic, 428
paralytic, 430
traumatic, 430
treatment of, 433
Illusions, sane and insane, 49
Imbecility, 416
ætiology of, 417
diagnosis of, 421
treatment of, 433
Impulsive insanity, 189
clinical illustrations of, 195
Incoherence, 61
Individuality, law of, 22
Inebriates, special home treatment for, 468
Inebriety, definition of, 280
Influenza, insanity of, 370
Insane ear, 97
Insane conduct and propensities, 63
Insane, classification of the, 101
general treatment of the, 80
method of examination of the, 84
Insanity of adolescence, 253
alcoholic, 280
of asthma, 361
of Bright's disease, 362
of cardiac disease, 364
causation of, 68
chronic progressive delusional, 125
climacteric, 263
of the degenerate, 70
of diabetes, 366
epileptic, 223
of exophthalmic goitre, 367
general principles of treatment of, 80
of gout, 368
hysterical, 259
impulsive, 189
of influenza, 370
of lactation, 340
Insanity of lead-poisoning, 372
of masturbation, 180
due to menstrual irregularities, 373
moral, 186
of myxœdema, 376
of phthisis, 378
post-febrile, 381
of pregnancy, 313
prognosis in, 75
of puberty, 249
puerperal, 311, 317
of rheumatism, 384
senile, 266
of sunstroke, 386
syphilitic, 294
of uterine disease, 387
Insomnia, 36
causes of, 37
treatment of, 39
Ireland, on ætiology of idiocy, 418, 419
on classification of idiots, 425
on eclampsic idiocy, 427
on inflammatory idiocy, 431
on sane hallucinations, 51
on traumatic idiocy, 430
on varieties of palate, 401

J.

Jackson, Hughlings, on epilepsy, 225
on moral insanity, 187
Johnstone, Carlyle, on exophthalmic goitre with mania, 367

K.

Kahlbaum, on katatonia, 111
Katatonia, 111
Keen, on microcephalus, 434
Kerr, Norman, on the inebriate, 280
on opium-eating, 293
Kirchner, 'Manual of Psychology,' 20
Kirn, on insanity of influenza, 371
Kleptomania, 63, 190

L.

Lactation, insanity of, 340
ætiology of, 341
clinical illustrations of, 356
prognosis and treatment of, 346
symptoms of, 342
Ladd, 'Physiological Psychology,' 20
on the law of mental reaction, 174
Langdon Down, on ætiology of idiocy, 417, 419
on data of the feeble-minded, 392
on Mongolian idiots, 432
on varieties of teeth and palates, 400, 401
Lannalongue, on microcephalus, 434

Lasèque, on chronic delusional insanity, 128
on insanity of diabetes, 366
on partial insanity, 127
Law as to treatment of single patients, 449
Law of interference with a lunatic's property, 452
Laycock, on abnormal ears, 398
on kleptomania in pregnancy, 314
Lead-poisoning and insanity, 372
Legrain, on insanity of the degenerate, 70
Lewis, Bevan, on general paralysis, 208
Lunacy forms in use in England, 457
Lunacy forms in use in Ireland, 468-478
Lunacy forms in use in Scotland, 461
Lunatics, evidence of, 443
Lyman, on sleep, 35

M.

Macdonald, on responsibility, 442
McDowall, on insanity of lead-poisoning, 373
Maclaren, on impulsive insanity, 191
Macphail, on treatment of anæmia in insanity of adolescence, 258
Macpherson, J., on chronic delusional insanity of systematic evolution, 127
on Raynaud's disease with insanity, 383
Magnan, on chronic delusional insanity of systematic evolution, 127-133
Mania, acute alcoholic, 286
acute delirious, 155
acute and subacute, 149
ætiology of, 160
'à potu,' 283
chronic, 156
clinical illustrations of, 164
description of, 145
'folie circulaire,' 157
mental symptoms in, 150
physical conditions in, 153
prognosis in, 160
recurrent, 156
simple, 149
treatment of, 161
Marie, on chronic delusional insanity of systematic evolution, 127
Masked epilepsy of Esquirol and Morel, 228
Masturbation, insanity of, 180
clinical illustrations of, 193
symptoms of, 181
treatment of, 185
Maudsley, on insanity of diabetes, 366
Megalomania, 134
Melancholia, 103
acute, 104
ætiology of, 121
chronic, 108
clinical illustrations of, 112
delusional, 106
differential diagnosis of, 122
hypochondriacal, 106
neuralgic, 104
physical symptoms of, 107
resistive, 107
senile, 108
silent, 107
simple, 103
with stupor, 108
Menstrual irregularities and insanity, 373
Mental character, the physiology of mind, 21
Mental constitution, its component parts, 14
Mental development retarded or impaired, 391
signs of, 393
treatment of, 414
Mental disease, legal and civil aspects of, 438
Mental health, 27
Mental hygiene, 30
Mercier, 'Lunacy Law for Medical Men,' 452
Mickle, Julius, on general paralysis, 199, 207
on insanity of cardiac disease, 364
Microcephalic head, 396
Monomania, 125, 159
Moral insanity, 186
clinical illustrations of, 194
Mosso, of Turin, on sleep, 35
Murchison, on post-febrile insanity, 381
Myxœdema and insanity, 376

N.

Nasse, on post-febrile insanity, 381
Neuralgic melancholia, 104
Newington, on anergic stupor, 173, 176
on refusal of food, 79
Norman, Conolly, on insanity of asthma, 361

O.

Obsession, 65
of greatness, 134
of persecution, 129
Opium indulgence, clinical illustration of, 308
Opium, nervous and mental effects of, 292
Ord, on myxœdema and insanity, 376

P.

Palate, varieties of, 402
Paralysis, general, 197
Paranoia, 125, 159
Percy, Baron, on ætiology of idiocy, 420
Phthisis and insanity, 378
Playfair, on insanity of lactation, 340
Post-febrile insanity, 381
Pregnancy, insanity of, 313
  causes of, 314
  clinical illustrations of, 347
  forms of, 313
  symptoms and prognosis of, 315
  treatment of, 316
Preyer, on memory of children, 12
Pritchard, on moral insanity, 186
Puberty, insanity of, 249
  clinical illustrations of, 269
  prognosis and treatment of, 252
Puerperal insanity, 311, 317
  ætiology of, 330
  bodily symptoms of, 328
  causes of, 317
  clinical illustrations of, 349
  mental symptoms of, 321
  prognosis of, 332
  treatment of, 333
Pyromania, 63, 190

R.

Raynaud's disease in relation to insanity, 382
Rayner, Henry, on gout and insanity, 369
  on insanity of lead-poisoning, 372
Régis, on insanity of diabetes, 366
  on insanity of pregnancy, 313
  on loss of will, 66
  on melancholia with stupor, 108
  on syphilitic insanity, 294
Responsibility, the question of, 438
Reynolds, Russell, on gout and insanity, 368
Rheumatism and insanity, 384
Richet, on processes of digestion, 91
Ritchie, Peel, on insanity of masturbation, 180
Robertson, Alex., on delirium tremens, 284
  on epileptic seizures caused by alcoholic excess, 282
  on hallucinations in alcoholic insanity, 283
  on insanity of lead-poisoning, 372
  on treatment of status epilepticus, 236
Ross, on speech in epileptic insanity, 223
Ruxton, on insanity of lead-poisoning, 372

S.

Savage, on alcohol as a cause of insanity, 281
  on anergic stupor, 176
  on epileptic automatism, 229
  on epileptic insanity, 223
  on general paralysis, 198, 201
  on insanity of asthma, 361
  on insanity of diabetes, 366, 367
  on insanity of lactation, 342, 344
  on insanity of pregnancy, 313
  on moral insanity, 187
  on partial insanity, 125
  on rheumatism and insanity, 384
  on senile insanity, 266
  on case of syphilitic insanity, 296
Seguin, on definition of idiocy, 416
Senile insanity, 266
  ætiology, prognosis, and treatment of, 269
  clinical illustrations of, 279
  symptoms of, 267
  varieties of, 266
Sense perception, 15
Shaw, Claye, on the palate in idiots, 401, 402
Shuttleworth, on ætiology of idiocy, 417, 419
  on data of the feeble-minded, 392
  on defects of nutrition, 407
  on treatment of defective children, 414
Sibbald, on dipsomania, 287
  on epileptic automatism, 229
Simpson, on puerperal insanity, 328
Skae, on post-febrile insanity, 381
  on uterine disease and insanity, 389
Sleep, 33
Smith, on treatment of epilepsy, 235
Spencer, on moral insanity, 187
Spitzka, on general paralysis, 199
  on senile insanity, 266
Stephen, Mr. Justice, on responsibility, 441
Stockvis, B., on the use of sulphonal, 45
Stupor, 173
  clinical illustrations of, 192
  melancholic and anergic, 174
  treatment of, 178
Suicidal propensity, 64
Suicide, methods of, 64
Sunstroke and insanity, 386
Sutherland, Henry, on kleptomania in pregnancy, 314
  on prognosis in the insane, 79
Syphilitic insanity, 294
  clinical illustration of, 308
  prognosis and treatment of, 299
  varieties of, 295

T.

Trousseau, on insanity of masturbation, 180
on menstrual irregularities and insanity, 375
on rheumatism and insanity, 384
Tuke, Batty, on insanity of lactation, 340
on insanity of pregnancy, 313
on puerperal insanity, 318
Tuke, Hack, illustration of verbigeration, 67
on insanity of the degenerate, 70
on moral insanity, 186
on the term 'degeneration,' 70
Typhomania, 155

U.

Uterine disease and insanity, 387

V.

Van der Kolk, on phthisis and insanity, 379
Verbigeration, 67
Voisin, on hypnotic suggestion in the treatment of idiocy, 434
on microcephalic idiocy, 426

W.

Warner, Francis, on data of the feeble-minded, 392
on nerve signs, 404
Westcott, Wynn, on causes of suicide, 64
Whitcombe, on treatment of epilepsy, 235
White, Hale, on insanity of lead-poisoning, 372
Wiglesworth, on general paralysis, 198
on puerperal insanity, 318
case of syphilitic insanity, 295
on uterine disease and insanity, 387
Wilks, on insanity of Bright's disease, 362
Will and impulses, 17
Woods, Oscar, on lunacy forms in use in Ireland, 477
Wylie, on speech in epileptic insanity, 223

Y.

Yellowlees, on masturbation in epileptics, 180

Z.

Ziehen, 'Physiological Psychology,' 20

THE END.

Baillière, Tindall and Cox, King William Street, Strand.

