Epileptic Insanity

Long before Dr Skae's classification of mental diseases Epileptic Insanity was recognized and named — No demon could by any possibility produce more fearful effects by entering into a man than are often seen resulting from Epilepsy It is not at all usual for this form of insanity to follow speedily first appearance of fits Most commonly many years elapse before it comes on as a general rule Epileptics suffer merely a gradual mental clouding and demention after years of Epilepsy than from Epileptic Insanity Hughlings Jackson considers that in case of petit mal and slight convulsions the explosion not finding vent in a motor form is more apt to extend up into mental centres — This opinion however not shared in by most alienists although a few such cases may be recorded it certainly not the rule — In nineteen cases out of twenty of Epileptic insanity the mental symptoms are not of the sudden explosive character at all and they are by no means attended with unconsciousness or false conceptions loss of memory and want of power of attention Dr Hughlings Jacksons theory of explosion would assume that a morbid energy is developed in such brains that will act in some form either ~~in~~ motor or mental just like a charge of gun powder which if you obstruct the muzzle will blow out the breach of the gun Epileptic insanity may occur in two ways 1st after the fits the most common — occurring usually within twenty four hours of termination of fit 2nd Before the fits, Usually developed a day or two rarely three or four, before a fit is coming, and in such cases when the fit occurs, the insanity disappears The fit like a thunderstorm would seem to have cleared the air For days that the attendants in Asylums can tell in this way when a fit is coming on the many of the Epileptics under their care

Plate I Insanity or Organic Ds

(A) Skull cap condensed b, anterior third of brain as seen when dura mater is just raised showing thickened milky arachnoid membrane dotted over with small white spots with the spaces filled under it and the tortuous dilated veins congested vessels convolutions showing dimly through (C) Middle third of brain showing appearance of convolutions after pia mater has been removed Congested outer layers of grey substance have been worn away in irregular patches from the most projecting part of many of the convolutions leaving adhering to the pia mater and been removed with it the portions removed have left ragged eroded looking spaces where the gray substance looks softened & while the outer layer looks hard and opaque on its surface (d) Shows the pia mater stripped from middle third of brain, hanging down concealing posterior lobe of brain and showing appearance of its inner surface with the prints of the convolutions adhering to it Congested and thickened so that instead of being like the normal pia mater a delicate filmy transparent membrane, it is a tough spongy looking texture

Pathology of General Paresis

Envelopes and support of brain all found to be affected Bone of calvarium denser and harder, diploe sometimes obliterated or deposit of new bone on inside of inner table of skull cap usually confined to frontal and parietal bones Dura mater thickened adherent Sometimes spicula of bone growing from it In some cases under dura mater and arachnoid and attached to it or lying between it and the arachnoid a new substance of a peculiar kind commonly called a false membrane Varies in consistence from fibrous texture of dura mater thick to a fibrelen jelly in colour from grayish white to that of a blood in thickness from a fifth to a quarter of an inch, in extent from a small patch or two, to a covering of both hemispheres above and below usually thickest over the vertex When this removed from the dura mater that membrane is not congested or inflamed looking - On microscopic examination it is found to consist of a newly organized fibrous tissue in a gelatinous matrix with much granular matter, white and red blood corpuscles and newly formed capillaries This is then called Pachymeningitis hemorrhagica interna of the Germans a ridiculous and misleading name for it is not the result of inflammation at all - The pia mater is thickened vascular and tough to an enormous extent Convolutions atrophied especially over vertex of anterior and middle lobes and in some localized places elsewhere When the pia mater is removed from the convolutions it is found to adhere to and raise up portions of the outer ~~cortical~~ layer of the gray substance on the ridges of the convolutions which stick to the pia mater are removed with it and appear as irregular patches on the membrane that has been detached from the brain

This adhesion of the pia mater to the convolutions is a very decided phenomenon It has never been found to any extent in any patient whose mind was sound and strong before death - On opening into the ventricles, nearly always found enlarged their epithelial linings thickened by perhaps hyperplasia - General Paresis may then be considered as primarily a disease of the outer layers of the cerebral convolutions mind tissue and eventually a death of that tissue

Paralytic Insanity or Organic Dementia

Form of mental disturbance which accompanies and results from such brain lesions as apoplexies, ramollissements tumors atrophies and chronic degenerations affecting the convolutions and their functions either primarily or secondarily It has nothing to do with General Paralysis Symptoms vary according to position Kind and intensity of the pathological ~~process~~ process Typically a dementia superadded to some form of motor paralysis - Paralytic insanity like progressive Paralysis has a gross and demonstrable pathological basis, but differs widely and essentially from it in not being a specific disease of the brain convolutions, in not running a progressive course, in not being necessarily incurable, in the irregularity and variety of mental symptoms and of pathological lesions Red and most commonly seen in cases where there has been apoplexy from rupture of a blood vessel in one of the great basal ganglia or embolism or thrombosis followed by local starvation of brain tissue and ramollissement A brain affected by apoplexy or embolism and in that case probably having its blood vessels diseased is an organ on the verge of dissolution This disease is not an insanity in its proper acceptation In most cases the gradual mental decay is not thought of as a mental disease at all - There is a close analogy in symptoms pathology and course between paralytic and senile insanity In fact the majority of paralytic cases are also senile - The motor symptoms in paralytic insanity must be regarded as integral parts of the disease The speech is the most characteristic of these in the ordinary hemiplegic cases It is a thick articulation not a tremulous speech Every word from the beginning of a sentence to the end is imperfectly pronounced The labial and facial muscles do not quiver before or during the articulatory process as in progressive paralysis, it is simply a palsied speech not a convulsive one - If however the cerebral lesion affects the [illegible] portion of the third frontal convolution of the left side [illegible] Island of Reil on that side we shall then have the [illegible] speech symptoms

The ve[illegible]

Pathology of Paralytic Insanity or Organic Dementia

Ordinary brain disorganizing lesions (white and yellow softenings from Embolism and Thrombosis stand as the most frequent lesion. These softenings in about 83% Frequent destruction ganglion

3 Mental disturbance may occur instead of the fits, taking their place, apparently coming on at the period when the fits might have been expected This form is very rare and is the larval or masked Epilepsy of French writers and would seem to favour Jacksons theory of Epilepsy more than any other clinical fact observed in this disease 4th A slow steadily progressing loss of memory and change of affection, a blunting of the finer feelings, permanent mental Obscuration This in fact, a dementia either from brain injury from fits or from natural advance through prolongation of the morbid brain state that caused the Epilepsy Most Epileptics tend to become demented if they live long enough 5 Some chronic forms of insanity take the place of the fits, which cease altogether Dr Condie has seen only four or five cases where this took place and they all occurred at the termination of the reproductive period of life 6 Epilepsy may begin in the course of chronic insanity of many years standing, evidently through advance of disease from the mental into the motor centres of the brain Hereditarily ordinary insanity and Epilepsy are closely allied The sister or daughter of an Epileptic is just as likely to be idiotic, weak minded, drunken or insane, as to be Epileptic, and certainly the children of families with a strong insane hereditary are very commonly Epileptic

Traumatic Insanity Of two Kinds, blows on the Head and Sun Stroke - Motor symptoms with more the shape of speech difficulties - Slight Hemiplegia General muscular weakness and Convulsions Mental Symptoms usually a form of Melancholia at first afterwards tending to impulsive and dangerous dementia or delusional insanity - A majority of the traumatic cases can be calculated at about half

When a drunkard falls and injures his brain and becomes insane the alcohol aggravates the mental symptoms - A few cases became ordinary Epileptics - Traumatism is a rare cause of General Paralysis - Cases on record of insanity directly following fractures of skull with consequent pressure on brain cured by the depressing or raising the depressed bone Condition of urine as to sugar and albumen should be carefully looked in all traumatic cases - Where sugar exists there is room for some suspicion of Neurotic to the pons near the floor of the fourth ventricle Some cases of Idiocy result from injury to the brain by the forceps during delivery - Sun stroke general mental symptoms of traumatism and sun stroke apt to be alike - Sun stroke however sets the seeds of far more insanity than it produces

Syphilitic Insanity Dr Wade makes the statement that of ten thousand patients under his treatment at the Central London Sick Asylum three four thousand the subject of acquired or hereditary Syphilis - Syphilitic Insanity may be classified into four forms 1st Secondary Syphilitic Insanity 2nd Peripheral Syphilitic Insanity Vascular Syphilitic Insanity and the fourth Syphilomatous Insanity - The first form occurs during the second stage of disease, coincident with the eruption curable - The second form (Peripheral) due to brain starvation and irritation from Syphilitic arteritis Consists of an incurable monomania of suspicion or unseen agency with hallucination of senses but without motor symptoms (Cases page 303) - The third vascular syphilitic insanity depends on tendency of poison

to affect the blood vessels of the brain and cause slow arteritis with diminished blood carrying capacity and consequent slow starvation of cerebral tissue - The other or Syphilomatous Insanity depends on the tendency of the poison to affect the connective tissue, neuroglia, membranes and bones and cause pressure, irritation direct and reflex in the convolutions Case of Vascular Syphilitic No 7 (Page 304) represents a section through the brain of a man under the third or vascular form of Syphilitic insanity with slow arteritis affecting the vessels supplying the cortex and part of middle lobes of cerebral hemisphere This had caused slow starvation and absorption of nearly all the white substance in the centre of those lobes leaving the grey matter of the gyri almost intact so that there was a bag of fluid inside with the convolutions as its walls The convolutions looked at from the inside are quite defined and look as if the white substance had been carefully scraped off of them This illustrates the greater vascularity and consequent greater vitality of the grey matter as compared with the white as well as the different sources of blood supply in each Plate VIII P 306 Figure 1 A small artery in the brain with all its coats enormously thickened separated from each other and its lumen almost obliterated as in Vascular Syphilis No 7 Figure 2 Stained brain cells in a convolution supplied by such an artery as seen in Figure 1 The cells are in various stages of degeneration and atrophy - Treatment Long continued doses of Iodide of Potassium and Biniodide of Mercury - Alcoholic Insanity - From fifteen to twenty per cent of the cases of Mental disease may be put down to Alcohol either wholly or in part - General Paresis Paralytic Insanity Epileptic Insanity Adolescent Insanity, Climacteric and Senile insanities may be due to alcohol as Exciting Causes Predisposing Causes Attack Acute Alcoholism or

Delirium Tremens described fully in your text books of Medicine
needless therefore here to dilate upon – There are four chief
risks to be guarded against – The first that of the brain passing
from a melancholic mental condition into that of stupor and
coma from being injudiciously dosed with Opium
Second risk Persistence of hallucinations of hearing after
most of the other symptoms have passed away – The treatment
is exercise in the open air and mental distraction from
morbid fancies The third risk Persistence or aggravation
of insane suspicions of poisoning of conspiracy or of being
worked on by electricity and unseen agency
The fourth risk is that the mans brain and the man himself
get out of the attack with the finer points of his moral
character and feeling rubbed off He is mentally
different from his former self though not insane
more untruthful and less honourable – His brain has undergone
an organic change to some extent instead of fine membranes
they are milky and thickened, instead of pure brain substance
there is imperfect or the proliferated neuroglia and adventitious tissue
Instead of the attack resolving itself in the natural way it
remains but as a slack of ordinary melancholia or mania
which ends in dementia 2nd Chronic Alcoholism
A long continued steady sort of Drunkenness alcohol is much more
damaging to the brain in its mental motor and trophic
functions than bouts of heavy drinking or the intermittency
of sobriety 3rd Form Mania a Potu or Delirium Ebriosum
Occurs in the cases of persons often young with hereditarily
unstable brains Flakes by a little drink to produce it –
a few glasses may make them victors and unmanageable
Bengalis delorant – Such brains have often shown a weakness
from the beginning such as lack of self control tendencies

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Often quite delirious – Such brains have often shown a weakness
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Hysterical Insanity

That form of insanity which is complicated with some of the distinct symptoms of hysteria should really be called Hysterical Insanity for there is but little doubt that undue excitation disturbance of the functions of the ovaries has more to do with Hysteria than anything else - Typical Hysteria pure and simple has always a mental complication The volition or the feelings or the morals are always affected along with the purely bodily symptoms - These mental symptoms not forming the chief feature of the disease, nor being of such a nature as to make the patient irresponsible or unmanageable are not reckoned as being of the nature of Hysterical Insanity among the rich who can afford attendants Among the poor with no one to look after them hysterical women are often sent to asylums and the principles of asylum life and treatment are the very best principles of treatment for hysteria To put the patient under control, to give her no harmful sympathy to make her work, and walk out regularly with proper bodily health are the best curers of hysterical girls - The usual type however of ~~that~~ cases classified as Hysterical Insanity consists of Mania or Melancholia with marked in young women with one or more of the following characteristics by a morbid ostentation of sexual and uterine symptoms ~~clothed by something else~~, feigned bodily illness to attract attention and to create sympathy, marked & morbid sympathy clothed by something else, morbid concentration of mind on the performance of the female functions, demi volitional retention of urine, hysterical convulsions morbid waywardness ostentatious and unreal attempts at suicide The fasting girls the girls with

stigmata, those who see visions of the Saviour and of the Saints and receive special messages that way the girls who fancy they give birth to snakes mice and frogs and those who pretend to live on lime and hair are all cases of this disease Hysterical symptoms are exceedingly apt to occur in the insanities of puberty and adolescence and along with these symptoms the habit of masturbation is common It is sometimes difficult therefore to know whether to classify such cases as adolescent, hysterical or masturbational insanity All that can be done is to ascertain whether the hysterical symptoms have been the most marked and prominent features in the early development of the case

Simple Melancholia – Low spirits, want of affection, want of interest and enjoyment in life – Fancies, whims or th impairment of reasoning power but much bodily wasting Sometimes goes no further Often prelude to severe varieties or to other forms of insanity Condition comes and goes Hypochondriacal Melancholia Patients depressed feelings centre round himself, delusions about his bodily organs and functions – Fancies innumerable in kind & variety Seldom very Suicidal Difference between the insane and insane hypochondriac the one talks only the other acts and has lost his inhibitory power
Delusional Melancholia Delusions most prominent symptoms from beginning Electrical and religious delusions Suicidal – Excited motor Melancholia Restlessness worse agitation wringing hands moaning shouting tearing clothes violence insane obstinacy Difficulty of management – Hallucinations – Delirium tremens a typical and exaggerated variety of this ~~form~~ Trophic changes Boils irritations of skin causing scratchings Resistive Melancholia unreasoning passive or active resistance to any thing other people wish them to do Masturbation in both sexes often causes aggravates and accompanies this condition Convulsive Melancholia Motor movements ideo motor and volitional Mental depression very intense – epileptiform seizures Organic Melancholia Precedes or accompanies tumors or softening of brain substance Ends in Dementia Suicidal and Homicidal Melancholia In every case of Melancholia however mild look out for suicide and guard against it – Fifty four percent of cases of Melancholia recover Homicidal and suicidal impulses frequently combined Treatment Good diet Tonics nutritives Sedatives use and abuse of Stimulants Quinine Iron Strychnia phosphorus Bromides Mineral acids Laxatives Mineral waters Exercise Change of air scene and association

Manic Mental Explanation

Manic defined objectively Melancholia subjectively Sy varieties
Simple Mania Coherent elevation Varieties Cases C. a-b c d
Acute Mania or Raving Madness Only forms 8 per cent First stage Sleeplessness
Irritableness Talkativeness Constant muscular action
Changeability Irritability Diminished self control Hyperfunction
Loss of sensual proprieties Idiocy and conventional moralities
Change in natural affections and habits - Increased
imaginative power and amount of mentalization Waste
Mania different loss of body weight Denial Malaria Hearing
wrong Second Stage Total loss of self control Recklessness
Violence Destructiveness Filthy habits Taste smell
and common sensibility perverted Shouting Roaring
Facial expression totally altered Rapid loss of weight
and Exhaustion of strength Tongue and Mouth dry Secretions
altered and menstruation stopped - Differential
Diagnosis From Alcohol - From Poisons Suppressed
and masked fevers Injuries to head Treatment
Food Stimulants Open air Sedatives Skilled attendance
General management - Safety Anything that impairs
appetite or digestion bad Cases C d 147 Delusional Mania
Delusion the essential Element usually fixed with
excitement (Page 157) Prognosis not good Chronic Mania
Acute Mania continued in a modified way for
over a year with usually the elements of Dementia
Case Page 159 Treatment Lunatic Asylum Prognosis Bad
Ephemeral Mania - Case 161 - Hormetal Mania 162
Prevalence of Mania 5% per cent - Prophylaxis in Childhood
Milk and Porridge but little animal food
Avoid stimulants tobacco and sexual intercourse until
adolescence As much sleep as possible Accordance
of study requiring brain work selecting farming as an Occupation

[illegible]

TYPES OF INSANITY

AN

ILLUSTRATED GUIDE

IN THE

PHYSICAL DIAGNOSIS OF MENTAL DISEASE

BY

ALLAN McLANE HAMILTON, M.D.,

ONE OF THE CONSULTING PHYSICIANS TO THE INSANE ASYLUMS OF NEW YORK CITY, AND THE HUDSON RIVER STATE HOSPITAL FOR THE INSANE, ETC.

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INTRODUCTION.

As we progress in our study of insanity, we are constantly reminded of the physical changes that take place in the patients committed to our charge. Disease of the brain makes itself known by well-marked bodily symptoms, that are in themselves almost as important as the many variations of disordered mental action. In the present work it has been my aim to put into simple form a few suggestions that may prove useful to medical men who, from time to time, meet with cases of insanity in their practice. The plates are drawn by Mr. T. J. Manley from instantaneous photographs; the subjects were selected from many hundreds of patients, and I believe them to be typical.

I wish to express my obligation to Drs. A. E. Macdonald and Franklin, as well as the gentlemen of the medical staffs of the male and female insane asylums of the city of New York, and to the various superintendents of asylums throughout the country who kindly sent me abstracts of State laws. I am especially indebted to Dr. A. Trautmann, of the Ward's Island Asylum, for the accurate sphygmographic plates, and to Dr. G. D. Smith, of New York, for valuable assistance.

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PLATES WITH TEXT.

TYPES OF INSANITY.

CHAPTER I.

GENERAL APPEARANCE OF THE INSANE — PHYSIOGNOMY, POSTURE, CONFORMATION OF THE HEAD, ETC.

There are various changes in the appearance of the insane that are almost as important in their way as the evidences of mental trouble displayed in conversation. Not only is the unbalanced mind evinced by alterations in facial expression, and by departures from former habits in the matter of gesticulation, postures, and dress, but physical alterations as well are presented, which are the outcome of disease of the brain, and are sometimes so trivial as to escape ordinary observation, but nevertheless should be always looked for. Especially is such the case in those examples of insanity which are masked or concealed.

When one walks through the wards of any asylum for the insane, he will be immediately impressed with the repulsiveness of the faces about him, for the general appearance of the insane patient is in no sense prepossessing, and this is especially the case in the female. Women of beauty, as writers upon insanity have observed, rapidly lose their good looks with the establishment of mental disease, and plainness or downright homeliness is the rule among asylum patients, whether of high or low social station. What with slovenliness in dress, filthiness in habits, changes in the color of the skin, and the condition of the hair, much of the romance that is supposed to belong to insanity disappears. There are few Lears, and fewer Ophelias.

The physiognomy of the insane consists not only in the portrayal of inharmonious types of expression, but in transitory and intensified manifestations of dominant

feelings. The latter is often the case in commencing insanity, and in forms of mental disorder that have stopped short of dementia. It is well in all cases to systematically study the condition of the organs of expression themselves, and ascertain if there be functional derangements as well as general structural changes which may be the result of defective innervation. Such study should be careful and continued, and not only the manifestation or absence of expression should be taken into account, but the possible existence of paresis of certain facial muscles, the condition of the eyes and hair, the coloring and appearance of the skin, and the general muscular tonus should be noted as well. Relaxation and rigidity of the muscles are conspicuous factors in the expression of insanity, and in states manifested by lowered emotional activity we find the former to be nearly always present. Such is the case in melancholia and dementia, and in the atonic stages of other forms of asthenic disease. Rigidity, on the other hand, is the rule in mania and in conditions attended by excitement, as well as in certain sthenic forms of melancholia. The *melancholic* patient dramatically expresses mental distress by the position assumed, which is the embodiment of utter resignation to the worst; the facial muscles are relaxed, the mouth sags at the corners, and the eyelids droop, leaving exposed a small portion of dirty white sclerotic. The color of the skin is muddy, and in appearance greasy, as the sebaceous secretion is abundant; the nose and ears may be red or else livid, and the lips swollen and ill-defined. It is not rare to find spots of acne upon the forehead or back, or herpetic patches about the mouth. When the patient raises the head, which is usually bowed, it is to look wearily into vacancy (Plate III.), and a position of this kind may be assumed and kept for hours at a time. The hands hang listlessly in the lap, are dusky and swollen, and the fingers are intertwined or engaged in picking imaginary particles from the clothing. When the back of the hand is pressed, a white mark remains, slowly disappearing however as the sluggish capillaries refill. The nails are pale, or have a bluish tinge, and often there are hang-nails which are idly picked. These latter, in association with acne upon the forehead, are very common in sexual insanity, especially among masturbators. Such melancholics are not disposed to pay much attention to what goes on about them, and beyond an occasional deep-drawn sigh they give little indication of their feelings, but seek to avoid interference or notice of any kind. In lighter grades of melancholia the expression is of a much more sthenic and active character, and this is especially the case in forms of depression alternating with excitement. The patient is loquacious and communicative, as well as restless. His anxiety and anguish are evinced by certain forcible actions, such as pressing his hands over the face or head, by appealing gestures, a supplicating expression, or one of fear or remorse, by rolling up of the eyeballs; by bending the body usually forward, the patient assuming a crouching attitude, and by other evidences of an intense play of the more active of the depressing emotions.

In *melancholia*, when there is a complicating hysterical element, it is not rare to find libidinous gestures and postures, which are, however, more marked in mania of an hysterical form.

In *mania* everything indicates the play of ambitious feeling. Under the sway of pride, self-satisfaction, inordinate vanity, rage, hate, and certain dominant and all-absorbing passions, the bearing and demeanor of the patient suggests only excitement, restlessness, and irregularly expended energy. Muscular rigidity succeeds relaxation, but there is an exhibition of power which is entirely disproportionate to that needed for the performance of any special act. The movements made by the patient are rapid, cumulative, and startling. He paces to and fro, and his emotions are of a kind that must find vent in muscular action. The elated sense of importance is shown by his pompous deportment; his smile is supercilious and constantly plays about the mouth, the upper lip being raised to expose his teeth. As he rapidly strides through the ward or room in which he may be placed, his body erect, and his face turned upward and usually to one side, he presents a striking picture. The maniac gesticulates in a way that is not to be forgotten: he pats his breast, smoothes down his clothing with both hands, strokes one hand with the other, points to himself, raises both hands with their palms toward the visitor, and he does all this in a rigid and puppet-like manner. In the midst of his rapid walk he commonly turns and strikes an attitude (Plate VI.). The same patient at another time manifests an extravagant expression of rage, which is no less actively displayed, the brows being corrugated, the teeth covered by compressed lips, the eyes widely opened and the balls fixed, but it is rare for such a patient to look a person squarely in the face, and the intense expression may be rapidly succeeded by one entirely different.

In *chronic mania* we find that the dominant features of the patient's insanity have left indelibly marked traces. The suspicious, violent maniac (Plate V.) glares at the passer-by, with averted head and sinister expression, while the brow is contracted and the lines about the mouth are deep and sharply drawn. Such a patient suddenly starts up to swear and curse, and shake her fist violently in the face of the spectator, while her scowl may be succeeded in a moment by a contemptuous sneer or a malicious grin. For days together there may in such cases be little variation in the play of expression.

Certain sub-varieties of insanity are manifested by peculiarities in the behavior and appearance of patients which have more than passing interest. In hysterical mania, during the attacks the patient often presents the appearance of transfiguration alluded to by Charcot in his writings upon hystero-epilepsy, there being a condition of ecstacy, the excitement displaying itself in fixed attitudes, in which she remains for several hours. Varieties of moral insanity of sexual outgrowth in young people of both sexes, but especially in males, are expressed by great shyness, timidity of manner, or an effeminate appearance which is highly suggestive. In certain young women with sexual insanity a restless manner and the existence of a morbid self-consciousness and vanity are constantly present.

In *dementia* the facial change consists in an absence of expression of any kind, and the muscular atony often gives to the countenance a mask-like vacancy and immobility. Under stimulation a meaningless smile may be brought to the lips, but it is not the reflex of any intelligent mental action. The lower lip is often relaxed and

dependent, and from the corners of the mouth drools a stream of saliva which the patient makes no attempt to arrest (Plate VII.). The eyes are cold, fishy, suffused, and expressionless, and in advanced cases betray no indication of intelligence. Particles of food collect in the interstices of the teeth and the breath is offensive and peculiar. The demented patient ordinarily is slow in his movements, remains in fixed attitudes, and his circulation is defective, the extremities being cold and livid; the lids are red, and sometimes there is a tendency to lachrymation, the person crying without apparent provocation.

In many of these cases there are exacerbations of feeble excitement, usually short-lived and accompanied, in old people, by restless movement and incoherent loquaciousness and irritability. Loss of memory being one of the most important mental defects in dementia, we frequently find that the dement does not recognize any one with whom he may have come in contact since the development of his condition, although in cases not far advanced he may be able to remember old friends, but cannot call them by name.

A form of dementia which is rare is known as *primary dementia*, and affects young people, as a rule under the age of thirty, is manifested by a self-absorbed stupid manner, and by what Browne describes as "a perplexed vacant expression." The movements of the patient are slow, and, like older dements, he assumes a position of utter dejection and rarely changes it. He may make movements of an automatic character when such are suggested to him. When his hands or feet are placed in a certain position they maintain that position with a sort of cataleptic fixation, though there is little or no rigidity. His hands are cold, and the heart's action is weak. When he does talk it is in a garrulous manner, and like the echolalic idiot he repeats the last phrase he may have heard, or one word over and over.

The *imbecile* usually presents changes in appearance which are very marked. As possessors of inherited taint and the victims of early cerebral disease, we find defective development of various parts of the body, such as misshapen, though not necessarily atypical heads, evidences of early hydrocephalus, distorted and contracted limbs, the result of infantile paralysis, and secondary degeneration and atrophy. In many of these cases there are ocular defects and various errors of nutrition. The expression of the imbecile is repulsive in the extreme, and we find varying indications of intellectual change (Plate II.). As a rule, the countenance indicates a low order of brutality, the eyes are small, furtive, and cunning, and the movements are quick and cat-like. Imbeciles are often deaf and dumb, and pantomime may be a striking feature. The facial asymmetry which often exists in the imbecile, and is due to early unilateral disease of the brain, is detected by drooping of one corner of the mouth, absence of one nasal fold, flatness of the nostril on the same side, and unevenness of the palpebral openings. It will be found also in many cases that the tongue is not protruded in a straight line, or is the seat of hemiatrophy, and there may be in connection with this a drooping of one arch of the palate, and a deviation of the uvula. Many imbeciles are epileptic, and

during examination may have attacks of petit mal, or localized spasms of various kinds.

The appearance of the *idiot* is so familiar, even to the lay observer, that not much need be said on this subject. Nevertheless a word of caution may be given to those who are liable to confuse imbecility with a congenital condition of non-development, which is idiocy (Plate I.). The physical defects of the idiot are symmetrical, and the defective development is always of a type which can be duplicated. The body is generally undersized, the arms are sometimes long and there is a general tendency to flexion. In low grades the head is, as a rule, much smaller than normal, and out of proportion to the size of the body; the facial angle is often very great and the upper jaw has an advancing alveolar process, and may contain irregular and carious teeth, which usually protrude, presenting a rodent-like appearance. Cleft palate and other osseous defects are often suggestive accompaniments of deeper errors of development. The mouth of the idiot is usually large, the lips are thick, the eyes prominent and surmounted by bushy brows; the hair is coarse and bristling and inclined in the centre to grow well over the forehead. The physiognomy of the idiot betrays a slight degree of intellectual activity, but usually emotional excitement of an inconstant kind is all that we find. The grimaces and facial contortions are exaggerated and, as a rule, are suggestive of pleasurable feelings; or, on the contrary, we find passing expressions of rage or sorrow, which follow the most trivial provocations. So monkey-like is he in his behavior and motions that the diagnosis should never be difficult. In other cases of idiocy, not so pronounced, there is little to indicate the mental condition except certain vacuity, which shows how inconsiderable is the interest taken by the patient in things about him. Such patients are amiable and tractable, and the cranial atypy may be very slight.

Among certain idiots there are certain physical peculiarities which are the result of defective development of the lateral and posterior column of the spinal cord. Among them is spastic paralysis. The feet may present various deformities, there being talipes valgus, varus, or equinus. In cases of idiocy it is not rare to find supplementary fingers or toes.

The *general paretic* manifests his disease more in disorders of motility than by any alteration in facial expression, if we may except the appearance of elation which accompanies the delusions of grandeur, or the flatness and immobility of the facial muscles, or the local pareses, which are features of the stage of dementia. In the early stages we are furnished with tremulousness of the lips and tongue, and fibrillary tremor of the facial muscles, difference in the size of the pupils, drooping of the eyebrows, a staggering walk which does not exactly resemble that of any other form of spinal or cerebral disease, and which indicates rather an uneven expenditure of power than a loss of muscular strength. There may possibly be incoördination of the upper extremities in advanced cases. The patient, when he attempts to speak, uses his lips and tongue in a way that is peculiar, and his speech is explosive or shuffling, and this is especially noticeable when he uses words which contain many consonants. The manner of the paretic is especially pronounced, and he is fond of attracting the atten-

tion of any one who will listen to his extravagant delusions, and rarely misses any opportunity of seeking notoriety. At a later stage of the disease he loses all his energy, and may present the appearance of an ordinary dement, there being, however, in addition, the special motor troubles and the pupillary alteration.

In the physical diagnosis of insanity it is well, especially in cases with well-marked history of heredity, previous mental trouble, or cerebral disease, to carefully examine the configuration of the head, to determine as nearly as possible the capacity of the cranium, the existence of evidences of premature closure of the fontanelles, and to look for marks of injuries, or syphilitic bone or aural disease. Measurements of the head may be taken by means of a flexible lead pipe or tape, which should be of sufficient thickness not to lose its shape when removed. When such moulds are made they should be fastened to a smooth board and carefully measured.

For the purpose of measuring the facial angle we may avail ourselves of either of the instruments described by Broca in his work upon craniometry, or more simply by the use of three ordinary rulers which may be joined by adjustable screws.

Records should be kept of the bi-aural or transverse, circumferential, and antero-posterior measurements. If, however, there is reason to suspect irregularities, moulds may be taken in different regions and measurements compared.

The head of the insane is more often abnormally long (*dolio-cephalic*), but occasionally a short (or *brachy-cephalic*) configuration is found. With one-sided atrophy it is not rare to find imbecility, and lead moulds should be taken at several points in such cases to determine the inequality. In cases of hemiatrophy of the brain dependent upon disease of early origin, unilateral bone atrophy frequently results.

In our observations and craniometric investigations, we are to avoid the mistake of attaching too much importance to simple irregularity and distortion, for every hatter's collection will show that men of brightest intellect are possessors of heads of decidedly irregular shape. After all, we are to look for atypical crania, which are either disproportionate in size, or present facial angles so great as to suggest at once a small or undeveloped brain.

CHAPTER II.

CONDITION OF SPECIAL ORGANS: THE EYES, THE EARS, THE MOUTH AND TEETH, THE TONGUE, THE NOSE, ETC.

The eyes of the insane undergo changes which are often of the greatest importance, and should never be disregarded in making an examination. We should take into account, first, the condition of the pupils; second, the mobility of the eyeball; and third, the condition of the fundus by means of the ophthalmoscope. In melancholia, as a rule, the pupils are dilated and sluggish, while in mania, except in the active stages, they are moderately contracted, or present no apparent change, and respond readily to the light. In epileptic insanity they are mobile and usually dilated, but this is by no means invariably the case. If both pupils are found to be much reduced in size, and local reflex action is abolished or impaired, the condition is highly suggestive of the first stage of general paresis, or of complicating disease of the pons; but care should be taken not to mistake the contraction that is the result of opium, and which may be a feature of the insanity. Unequal dilatation of the pupils is of great significance, as it is so common a feature of general paresis. Such unequal dilatation is by no means always confined to one side. Mickle found that pupil variation bears a decided relation to the changes in mental symptoms. In patients presenting alternating depression and elation, the condition of the pupils is alike in the two mental conditions. In several cases he saw they were dilated and sluggish, but differed slightly in size. He noted in the confirmed disease, in the stage following excitement and expansive delirium, that there was always a difference; at first the left pupil was usually the larger, and afterward the right. They were always irregular and sluggish, while in the quiet stage preceding extreme dementia the pupils were commonly small. He, as well as others, has noticed that after unilateral convulsions there is temporary dilation of one pupil. It would seem that the left pupil is more frequently dilated than the right, the pupillary changes, however, are not constant in their method of appearance. In cases of insanity of syphilitic origin we commonly find changes in the color of the iris and irregularity of the pupil, that suggest old iritis.

In cases of insanity directly traceable to coarse disease of the brain, there are to be discovered, as a result of paralysis of the various muscles moving the eyeball, a variety of visual defects, the most important of which is diplopia or double vision.

Paralysis of the third nerve results in ptosis, dilatation of the pupil, immobility of the eye, except in the outward direction, followed by divergent squint, and crossed diplopia, which is produced when the patient is directed to look at an object held in front, above, or on the side opposite the affected eye; he will then see two images, one above, below, or at the side of the other. If the patient be directed to hold his hand over the sound eye, and he is told to touch a specified object in front of him, he is utterly unable to do so and is apt to become dizzy. Of course, it is rare to find complete paralysis of all the fibres of the third nerve and the appearance of all these symptoms conjointly. *Paresis of the internal rectus* causes the patient to look toward the other side, in order to overcome the diplopia; a divergent squint results with crossed diplopia, the lateral distance between the true and false image widening as the object is moved in the direction of the sound side, away from the affected eye. With this form of paresis, when the object is held obliquely upward and inward, the images will be divergent above, that of the affected eye inclining to the opposite side. With the reverse position the images will converge above, that perceived by the affected eye inclining toward the impaired side. *Paresis of the external rectus* is symptomatized by homonymous diplopia. When the object is placed directly in front of the affected eye, at a distance perhaps of five feet, no diplopia exists; but when moved laterally so that the paralyzed muscle cannot be exerted to bring the eyeball to follow it, homonymous diplopia results—the patient turning his head toward the affected side.

Paresis of the superior rectus is manifested by a diplopia shown in the upper half of the visual field. The patient holds his head backward so that the objects may be brought into the lower half of the field. If the sound eye is covered and the patient is told to place his finger upon a certain object, he will invariably shoot above the mark. *Paresis of the inferior rectus* gives rise to diplopia opposite to that of the last named variety. *Paresis of the superior oblique*, is difficult to diagnose, because of its slight character. Objects below the horizontal median line appear to be double and irregular, while above no diplopia whatever is produced. In the double vision that occurs with this form of paresis the images appear at different distances from the patient, that seen by the affected eye being nearer to him.

Limited space will not permit me to go into this subject as fully as I could wish, and I will refer the reader to works on ophthalmology, where he will find much that relates to the mechanical defects of the motor apparatus of the eyeball. Tests should be applied in all cases of organic insanity, especially when there are visual hallucinations. In syphilitic insanity ocular paralyses are common and early manifestations, and in idiocy and imbecility various motor defects of this kind are to be found.

The ophthalmoscope has been used extensively as a diagnostic agent in determining the existence of organic insanity, but, so far, the appearances found differ widely.

Optic neuritis with atrophy of both kinds have been discovered in the eyes of general paretics, dements, and the subjects of epileptic insanity. In general paresis

there is a progressive neuritis, which passes into a peculiar atrophic condition, observed by Loring and others.

Enlarged veins, shrivelled arteries, and choked disk may be detected in one or both eyes of the insane, and it is not rare to find atrophy of the disk associated with incoördination, pains of the lower extremities, and other symptoms of associated spinal trouble.

In many cases of mental disease no impairment of the visual power is associated with neuritis. Ophthalmoscopic appearances have been found in acute and chronic dementia, idiocy, imbecility, and syphilitic insanity, but rarely, if ever, in simple melancholia or mania. One of the first symptoms of atrophy of the optic nerve is impairment of the color sense. The failure is met with most frequently in dementia, hysterical insanity, and general paresis, and, among men, more often in the latter disease. The power of seeing red and green is lost first, as a rule, and afterward the other colors. To apply the color test, the examiner should supply himself with a number of skeins of different-colored worsted, which the patients are asked to match. Hemiopia is an occasional feature of insanity, depending on gross cerebral disease; consequently it is more common in secondary dementia, general paresis, and syphilitic insanity than in other psychoses. In addition to the defects mentioned, we may find clonic spasms of the orbicular muscles (nystagmus), diseases of the lids, and a tendency to lachrymation; and this latter is a very common accompaniment of dementia. In examining the eyes of the insane we are furnished with diagnostic suggestions of the greatest value. Especially true is this with regard to *expression*. Bucknill and Tuke lay stress upon the absence of expression of the eyes in the delirium of fevers, in contradistinction to the intensity which exists in mania; and they call attention, on the other hand, to the prominence of the eyeball and the bloodshot appearance which characterizes the excitement dependent upon cerebral meningitis. In mania there is simply an intensification of emotional expression.

The "*insane ear*," or *otheotoma*, which has been described by a number of observers, is probably the result primarily of trophic disorder, and may arise from a slight injury or some such trivial exciting cause. The auricles become the seat of violent inflammatory process, which goes on to suppuration and may entail a considerable destruction of tissue.

The appearance of the ear in the acute stages of such inflammation is quite striking. It becomes hot, engorged with blood, and swollen to an extraordinary degree, so that the normal folds and indentations are lost in the general tumefaction, and there is closure of the external meatus. The affected ear is exquisitely painful, the patient shrinking from the slightest touch. It is not long before there is an increase in the violence of the inflammatory process and the formation of one or more abscesses, which, if not opened, burst and discharge a large quantity of bloody pus (Fig. 1, Plate X.). An abscess may sometimes form behind the ear. Extensive separation of the cartilage from the other tissues often occurs from burrowing of the pus, and when reparative process takes place a conspicuous deformity remains, due to contraction, so that the affected ear is shrivelled, crenated, and often flattened

(Fig. 2, Plate X.). The "insane ear" may be of slow origin, and the result of a low inflammatory process, or it may arise in a single night. It is common in cold weather, and may follow exposure to cold or pressure. This condition is sometimes met with in people who are not insane, and is considered by some authors to be very rare and a different affection, but I can see no difference, considering the pathological condition in both to be a perichondritis.

An appearance of the ear is occasionally met with which is misleading, and should not be confounded with that of the disease under consideration. I allude to the deformity produced by insane patients who constantly pull their ears (Fig. 3, Plate X.). Not only do we find elongation of the lobule, but ulceration and diffused redness as well. In certain cases of congenital insanity the auricles may be either abnormally large, pointed at their extremities, and stand out prominently, or else they are unusually small and flat.

The *mouth* undergoes changes in configuration which have much to do with the insane physiognomy, and is perhaps the most expressive organ, with the exception of the eyes, in the portrayal of mental variations. Its appearance in repose and in excitement should be noted, and the coloring and formation of the lips should be likewise. In certain forms of insanity the latter are tumefied and often dry and cracked. The buccal mucous membrane is pale and sometimes insensitive. The tonicity of the oral muscles undergoes considerable diminution, especially in such forms of chronic insanity as dementia and general paresis. In the former it is common to find a drooping of the lower lip, and in advanced cases there is inability to prevent the escape of saliva, entirely independent of the patient's mental disregard of its accumulation. There may be a paretic condition, which manifests itself in unevenness of the mouth. In general paresis there is tremor of the lips, which is especially noticeable when they are slightly parted, or when the attempt is made to speak, and seems to be increased by the effort of the patient to control it.

The *tongue* also trembles in general paresis, and when protruded is not only agitated by vermicular movements but is suddenly retracted. We also find this tremor in chronic alcoholism, but it is coarser and is not associated with the peculiar speech defects of the former disease. In varieties of insanity due to organic disease it is not unusual to find that the tongue, when protruded, points to one or the other side, or that it is impossible for the patient to bring the tip in contact with the roof of the mouth. The tongues of certain idiots and cretins are unusually large and swollen, of pale color and decidedly flabby. The appearance of the tongue in insanity as an index of various bodily states is also of great importance, as melancholia and diseases of like character are connected with digestive disorders, especially of an hepatic nature, and it will be found that this organ is usually coated with a heavy white or brown fur, and the breath is foul. In acute mania we may expect to find a red and glazed tongue. Various peculiarities in the appearance of the teeth are found among idiots, as well sometimes as among those who are of the "insane neurosis" or temperament. Figs. 4, 5, 6, Plate X., show these abnormalities quite fully. The two upper drawings show the teeth of idiot boys, the lower those of the lower jaw of

an imbecile with inherited syphilis. It will be seen in many of these cases that the incisors and canines are of a peculiar shape. They are sharp, cracked at the corners, crowded together, and irregular. In certain rare cases it is possible to find two rows of teeth in each jaw, one set being the permanent and the other the milk teeth, which emerge at different points. A tusk-like development is frequently found (Fig. 4, Plate X.), and it is not rare to find a large canine or incisor jutting out from the anterior surface of the alveolar process.

The *nose*, according to Hofling, in shape and appearance undergoes noteworthy changes, which he regards as important. We should therefore note the condition of the nostrils, whether they are distended or compressed, together or singly, and their mobility.

Evidence of general mal-nutrition is the rule in the early steps of all forms of mental disease, and may arise from insufficient food, many patients refusing to eat, or from the constant wear and tear incident to excessive excitement. When dementia follows chronic insanity it is quite usual for the patient to become much improved in appearance. In fact, the sudden increase in size and improvement in the color of the skin often leads the friends of patients to believe in a great improvement, while, on the contrary, this change is one that makes the prognosis bad.

CHAPTER III.

CONDITION OF THE BODILY FUNCTIONS: THE CIRCULATION, TEMPERATURE, AND PULSE VARIATIONS — OF THE SKIN AND ITS APPENDAGES—MUSCULAR TONUS—THE REFLEXES, SENSIBILITY—THE URINARY SECRETION, MENSTRUATION, ETC.

THERE are temperature and pulse variations in insanity which are valuable evidences of structural changes. These should be studied in every case if possible by means of surface and deep thermometers, and by the sphygmograph. The asthenic mental disorders which are grouped under the head of melancholia are usually attended by lowered surface and deep temperature, and in dementia the same condition of affairs is found to exist. In all forms of insanity attended by slowness of muscular movement this diminution of temperature is notable. The surface circulation is extremely sluggish, and it is with difficulty that the extremities are flushed or made warmer by energetic rubbing. When bulbar symptoms are present, a unilateral lowering is by no means uncommon. In alternating insanity (folie circulaire), or melancholia attended by transitory attacks of excitement, there is often a sudden rise of temperature with the beginning of the irritability. In general paresis the elevation is constant and important, even in the melancholic stage toward the latter part of the day, and is most decided during the first and last stage of the disease. In the first stage, however, the increase is connected with the maniacal attacks, in the second stage it is lowered, but rises again in the third stage. The increase in temperature continues with the excitement, and a very great and sudden increase of the body-heat is a forerunner of death. In mania the elevation is very conspicuous, and bears a direct relation to the muscular irritability and restlessness. In the mania of debility, the temperature may continue two or three degrees higher than normal for some days. In phthisical insanity there is an evening rise, which is attended by flushing and distention of the temporal vessels.

In puerperal insanity there is a primary elevation with quite small pulse. In patients suffering from insomnia, and who are violent, there is often a rise of two degrees at night. Macleod believes this to be the rule in all cases where there are destructive tendencies. As in various other diseases, an important point to have in mind is the difference between the morning and evening temperature.

In all forms of insanity the intercurrent complications are marked by sudden

and conspicuous variations of temperature; bed-sores and typhoid states are evinced by increased body heat, and in convulsive seizures, which may occur from time to time, the temperature is higher. After an attack of hemiplegia, whether following an epileptiform discharge or not, we find an increase of heat upon the paralyzed side. The surface-temperature is increased in mania, and the head, especially, is hot, while in some cases it is possible to detect local elevation of temperature. The sphygmograph in atonic conditions shows indications of lowered arterial tension. The tracings in melancholia vary, but are usually of an asthenic character. In complicated cases with cardiac hypertrophy the pulse is rapid, hard, and gives a tracing in which the first event is exaggerated and the diastolic line is marked by the absence of valvular breaks. In other forms of melancholia the heart impulse is weak, the tracing is almost straight, broken only by a feeble systolic elevation and tremulous valvular indentation.

The following are tracings taken by Pond's sphygmograph at the New York City Asylum for the Male Insane:

General Paresis. Right Radial Pulse; 78. (Most common.)

General Paresis. Right Radial Pulse; 70.

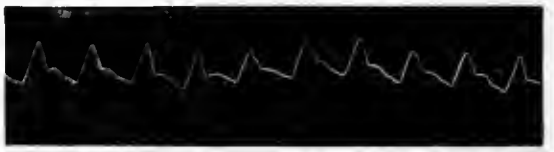
General Paresis. Right Radial Pulse; 76.

General Paresis. Right Radial Pulse; 96.

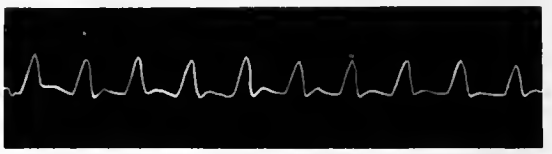
Acute Melancholia. Right Radial Pulse; 84.

General Paresis, Maniacal Stage. Right Radial Pulse; 128.

Acute Mania. Right Radial Pulse; 82.



General Paresis, Maniacal Stage; 78.



Absolute indications cannot be relied upon as the result of sphygmographic examination. There are general characteristics that are of great significance, and for this reason a number of tracings should always be taken.

In chronic and advanced insanity, the pulse is soft and compressible, and especially is this the case in melancholia. In diseases of this kind, circulation is exceedingly defective, and we find venous stasis in distal parts. As a result, it is found that inconsiderable injuries or exposure to cold, which in ordinary persons would have little effect, are apt to give rise to slowly healing wounds and sloughing. Chilblains are common, among demented patients especially, and dry gangrene is by no means uncommon, not only in old but in young people as well.

In some cases of asthenic insanity the pulse is found to be abnormally slow.

Heart disease has been found to exist in connection with nearly every form of insanity, and Berman has found that thirty-six per cent. of five hundred patients who died at the West Riding Asylum presented evidences of cardiac disease. We should, therefore, be on the outlook not only for cardiac murmurs, but for the signs of hypertrophy of the left ventricle. The cases in which we find heart-complications most frequently are those of melancholia, impulsive insanity, and among patients who are sullen, morose, and suspicious. In general paresis the second aortic sound is accentuated, which is also the case in mania. In both of these diseases we find increased arterial tension, and it is advisable always to use the sphygmograph. In many cases of secondary dementia obstruction murmurs are to be detected.

The condition of the *skin* and its appendages is worthy of study. The cutaneous surface is usually dry, harsh, and presents evidences of malnutrition. In rare instances there is profuse sweating, notably in acute mania, but the action of the sweat-glands is feeble. In some forms of disease, acne, herpes, and certain bullous eruptions play a crisogenic part and disappear after each exacerbation. Moles and staining are frequently a feature of chronic insanity, especially among women, and changes in the hair are also found, and have been commented on by various authors. In mania the hair is peculiarly coarse and bristling and with every attack of excitement it becomes erect or crinkly. In some patients I have looked upon this as a prodromic sign of a developing attack of violence, and I have found such to be the case. In melancholia it is in appearance sodden and limp, and rarely curls. In many insane people premature or uneven blanching of hair occurs. In cases of hysterical insanity and in chronic

insanity in women, there is a tendency to the appearance of hair upon the face—upon the upper lip and chin especially, the growth amounting to a beard in some cases.

There is occasionally found among children of weak mind a puffing or pseudo-œdema of the skin, which is associated with atrophy of the thyroid gland, and spots of staining. The face, in particular, is swollen and the lips and tongue are thick and enlarged. The voice is muffled and harsh and speech is slow. This condition is known as *cretinism*, and is quite rare in England and in this country. Of several hundred idiots I have examined, I have found but one case.

The *electric excitability* of muscles is not often affected. In a series of carefully made experiments, Lowe was unable to find any diminution in mania, but in general paresis and organic forms of disease, there was much loss of excitability. In even the first and second stages of general paresis no lowered reaction was found, but in the last stage he found that both in the arms and legs the muscular response to faradic excitement was considerably lowered.

The activity of the *tendinous reflex* depends very much upon the form and stage of insanity. In uncomplicated mania and melancholia it is rarely affected, but in all affections where there are symptoms indicative of affection of the posterior columns of the spinal cord it will be found to be diminished. In secondary degeneration of the lateral column, the patellar reflex is of course exaggerated. In general paresis it may be normal or absent, depending of course upon the lesion.

Disorders of motility are occasionally present among the insane. The existence of fine fibrillary tremor is a common indication, especially in chronic insanity. It may be noticed in the face particularly, and a vermicular contraction may be detected upon close examination or by lightly striking the face. Allusion has already been made to the disorders of motility so conspicuous in general paresis. The tremor of alcoholism is of a different character, affecting the hands and lower extremities as well, and is usually connected with anæsthesia; besides, it is more active in the early part of the day. In organic disease with mental symptoms we find various grades of tremor and paralysis, which depend upon the region of cerebral substance involved. The gait of the insane is sometimes a valuable indication of the form of insanity. In general paresis the walk of the patient is uncertain and unsteady, and a true defect of coördination causes him to advance with widely spread feet and a tottering method of propulsion. In various forms of dementia there is a shuffling gait due to loss of power, and in secondary dementia we find quite often an old hemiplegia and its embarrassments.

Sensory symptoms are usually of an anæsthetic character, and vary greatly. In melancholia there is sometimes a general cutaneous anæsthesia of a profound nature, and in general paresis the same state of affairs is found, but most marked in the last stage of the disease, when, besides diffused loss of sensibility, there may be anæsthesia of the fauces and larynx. It is often difficult to determine the state of sensibility, owing to the mental obtuseness of the patient and his perverted perception. In rare forms of hysterical insanity there is pronounced hemianæsthesia, with color-blindness upon one side. In dementia the loss of cutaneous sensibility is markedly lowered, and

severe injuries or burns give rise to little complaint. The electric sensibility is occasionally increased in general paresis.

Loss of smell and taste are met with in general paresis, during the last stage.

In chronic alcoholism, hemianæsthesia, with anæsthesia of mucous membranes has been pointed out. With this there is color-blindness in the anæsthetic eye. In this organ the cornea is insensitive and may be touched without annoyance to the patient.

Involuntary discharges of urine and fæces may occur at various times in the course of mental disease. In mania the patient is so occupied with his delusions that he is apt to void the contents of his bowels and bladder, while in melancholia, according to Luys, there is a certain anæsthesia of the lining membrane of the intestines which prevents the patient from perceiving the distention of the lower gut by substances accumulating therein, and finally there is a mechanical escape. In dementia and advanced insanity, actual paresis of the sphincter prevents retention of the contents of the rectum and bladder.

In many cases of commencing insanity I have observed that it is common for female patients to void their urine, even though they are perfectly conscious of their weakness. In early melancholia and in hypochondriasis constipation is the rule.

Examination of the *urine* of the insane shows that there are great variations both in the amount and in the component parts. In melancholia, and in conditions attended by slow organic changes, the quantity of urine is greatly diminished and the proportion of urea and chlorides excreted is diminished.

In conditions of excitement in mania, in the expansive stages of general paresis, the reverse is true, and in melancholia with excitement it is not rare to find abundant urine. In mania the quantity of urine may be very small.

Merson, Beale, Sutherland, and Lindsay have found that there is a plus amount of the phosphates in the urine in acute mania, while, in the stage of exhaustion in mania, the third stage of general paresis, and in the feeble stage of acute dementia they are reduced. The presence of albumen in the urine of the insane is occasionally found, especially in puerperal insanity, when the mental excitement often appears and disappears with the presence or absence of this substance. In the urine of general paretics it is often found, and in epileptic insanity it may be detected after the paroxysm.

The appearance of sugar in the urine may be determined sometimes in cases in which excessive thirst is a feature, and in which slight maniacal outbreaks follow inconsiderable excitation. I have frequently found it in the urine of paretics.[1]

In certain general paretics the urine presents an excess of alkaline carbonates.

In all cases of insanity it is well to inquire into the condition of the *menstrual functions*. Not only is insanity, as Falret and Esquirol have pointed out, very often caused by uterine and ovarian disorders, but there is a very important variation in the function of menstruation. Idiots and cretins menstruate very scantily or not

[1] In the light of Magnan's theory of the origin of the disease in the fourth ventricle, this circumstance is an additional confirmation of the pathological and experimental production of diabetes.

at all, and puberty is delayed. In disorders of the asthenic type there may be amenorrhœa, though, so far as my experience goes, the development of the insanity has been preceded by excessive, protracted, and debilitating flowing. In mania and other conditions of excitement there is greater mental disturbance at the catamenial period; and attacks of epilepsy, when they have been a feature of the insanity, are apt to be more numerous and violent at this time. It is a well-known fact that forms of sexual mental disorder are much aggravated by menstrual disorder, and with any abnormality the patient is inclined to indulge in disgusting practices and foul conversation.

Sutherland holds that general paralytics undergo change of life much earlier than other women.

In certain varieties of insanity, especially in the early stage of general paresis, there is an excitement of the genital function, which manifests itself, besides lewd behavior, in frequent erections, masturbation, and ungovernable lust. Luys reports the case of a young man who indulged during the day in masturbation whenever he recounted his hallucination of the women who followed him, soliciting him to have intercourse with them during the night. In dementia the tendency to masturbation is often constant, and it is found necessary to provide tight-fitting clothing in one piece, with sleeves sewed down to the sides, but even then the patient often manages to gratify his desire.

In nymphomania the behavior of the patient is perhaps more conspicuous than in the satyriasis of the male patient.

The salivary secretion is commonly increased, and in dementia very decidedly so. With accumulation the patient is apt to make what Luys calls "automatic attempts" to eject it, expectorating forcibly, with some degree of regularity (Plate VII.).

The breath and bodily odor of the insane are often very unpleasant, and by some authors the former is supposed to be as characteristic in its way as that emanating from the small-pox patient.

CHAPTER IV.

EXAMINATION OF PATIENT—CHANGES IN DRESS AND PERSONAL HABITS, ETC.—THE HANDWRITING OF THE INSANE.

It is never wise to gain access to your patient by means of any ruse, and it is preferable that the medical man should appear before him in his own true character. The object of an examining physician is not to extort communications from the patient by misrepresentation or deceit, for in such cases the avowals of the alleged insane person are falsely based, and his motives are declared under a false impression. If the examiner has not sufficient tact to draw out the person whose sanity is doubted, he had better deputize some one else to do the work. It is only in the rarest cases, when the patient is violent and threatens actual harm to every one, that subterfuge is to be resorted to. Go to your patient, then, as you would to any other, and engage him, if possible, in conversation. If the occasion offers itself, ask him in relation to his feelings regarding his immediate family, business associates, and friends. His religious beliefs, if any, should be inquired into, and the possibility of any change in sentiments discussed. If there are morbid ideas, which show themselves in a disregard of the present or a dread of the future, it will be well to follow up the line of examination and ascertain the possibility of suicide or contemplated violence. If he has imaginary enemies it may be well to inquire who they are.

His business capacity and plans for the future are important considerations. He should be asked as to the extent of his holdings, both of personal property and real estate, and of his ability to perform certain duties. He should be put through certain tasks, regarding his competency to execute business instruments and deeds if occasion arises. His memory should be tested both as to recent and remote events, and any speech defects, aphasic or ataxic, noted. His handwriting should be examined and compared with specimens of older dates. Moral changes in the demeanor of the patient are important. With slight promptings the insane person will often indulge in salacious outbursts, and especially is this the case in hysterical insanity and general paresis of the insane. Peculiarities in dress, habit, and mode of life, as well as the changes already described, should be investigated.

After getting as much as possible from the patient himself, his friends—as many as possible—should be interrogated regarding his behavior and the truth or falsity of certain communications he may have made. Hereditary disease, bad habits, and

other factors of disease should be also noted. After due care, and repeated interviews if necessary, the physician may safely state an opinion, but he should never do so hurriedly or without deliberation.

A most important duty is the taking of memoranda, which should be kept for possible litigation that may arise.

In entering the house or room of the suspected lunatic, the physician should observe any peculiar or eccentric arrangement of furniture or decoration, for the patient is apt to surround himself with unnecessary objects, or to cover his walls with gaudy trash. In itself this tendency may amount to nothing more than harmless eccentricity, which has always existed, but when it is a new thing, and in contrast to the person's previous tastes, it will be found to be the result commonly of some delusion. The person with a delusion of grandeur will provide himself with worthless imitations of royalty, the insane woman who believes herself to be the wife of the President will cover the walls of her room with woodcuts of that dignitary from illustrated papers, or the young woman who becomes a subject of melancholia is apt to surround herself by a multitude of pictures of saints and martyrs and by relics and religious emblems.

An important indication of the deep-seated character of certain delusions in chronic insanity is manifested in laborious yet useless industry, shown in the manufacture of certain peculiar objects with which the patient is surrounded. One man with whom I am familiar has spent several years in the preparation of a curious astrological apparatus, constructed of refuse material and rags found about the asylum, while others have been diligently occupied in the manufacture of flying machines, and other objects requiring great time and labor in their construction. We may often find in the books read by the subjects of impending insanity pencilled comments and additions which show the drift of their minds. The value of these methods of expression cannot be too highly estimated.

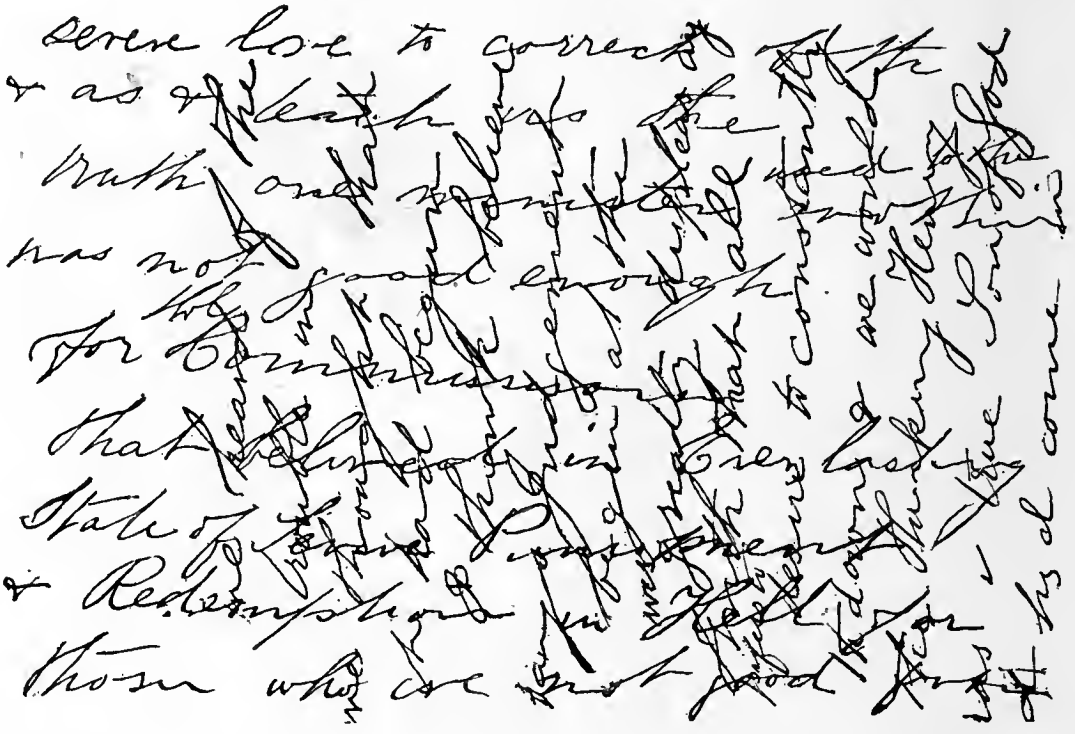
An early and conspicuous indication of mental disorder is the *change in personal attire* made by the patient. Gaudy finery, "loud" colors, and peculiarly made clothing take the place of quiet dress. Bright and glittering gew-gaws are affixed to various parts of the hat, coat, or dress, and buttons, pieces of looking-glass, feathers, and gay pieces of colored rag are pressed into service (Plate VI.). This fondness for self-adornment is found among maniacs, dements, general paretics, melancholics, imbeciles, and idiots, and in such patients is connected with delusions of grandeur and excessive self-satisfaction.

Disregard of appearance and untidiness in dress are early and suggestive symptoms of insanity, both of melancholia and mania. The ordinarily neat and well-dressed person may neglect his razor and comb, and become slovenly, dirty, and careless; on the other hand, we sometimes observe an extraordinary neatness and personal cleanliness quite at variance with the patient's former habits. Many insane believe that they are contaminated by some foul substance, and therefore will frequently wash their hands or cleanse themselves in different ways.

It is not unusual for the insane person to remove all clothing either as a result

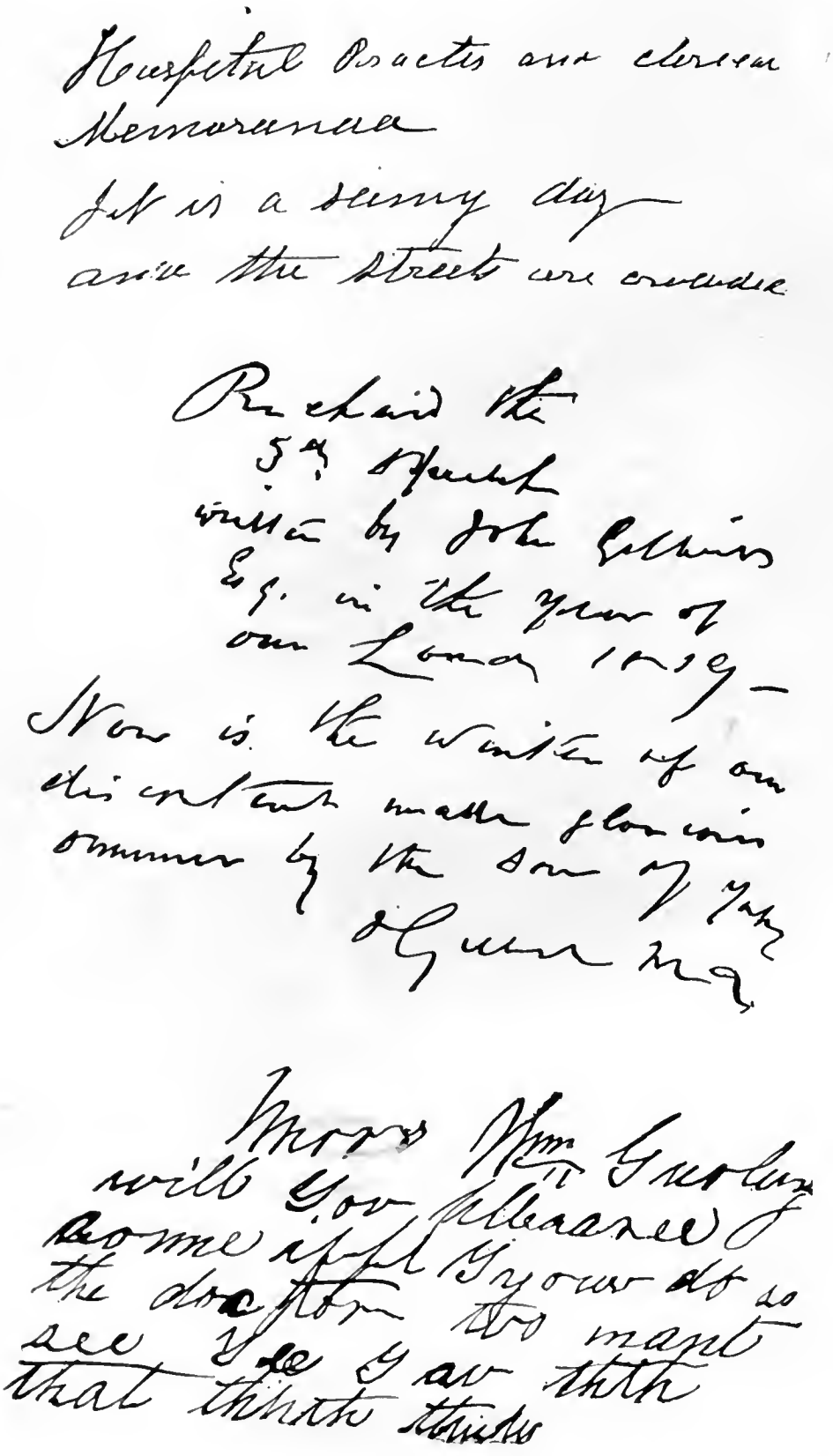
of the seeming discomfort which their contact produces, or as a result of some delusion. In violent cases, and in many subjects where chronicity is being established, we find great destructiveness. They will not only tear their ordinary clothing into strips, but will destroy the coarsest and strongest fabrics.

Much stress is laid upon the peculiarities which are found in the handwriting of the insane, and there can be no doubt that it possesses much that is interesting from a diagnostic point of view. In nearly every case a departure from the normal mental state is displayed by change, not only in the method of written expression, but in the chirography itself. This is especially noticeable in general paresis, and if a series of letters be compared, it will be found that the more recent present various irregularities. Certain words are imperfectly ended, their terminal letters being



absent, or they are extended in a scrawl, while at a later stage of the disease we find the omission not only of syllables, but of whole words; and in the letters of persons of precise habit before the development of mental trouble, it is rare to find an "i" dotted or a "t" crossed after the disease has made its appearance. At a later stage it is impossible to decipher anything that the patient may write.

One of the peculiarities of the letters of the insane consists in the use of illustrative diagrams, keys of explanation, and strangely coined words, and in forms of mental disease symptomatized by religious exaltation there are constant suggestions of the delusions of the individual, which are shown in maps and plans in which figure astronomical and theological symbols. In some cases there is a veritable *cacoëthes scribendi*, which is a feature in many maniacal patients. We find exacerbations of this form of mental trouble are preceded by vigorous letter-writing. The



first example is a specimen of the handwriting of a young woman suffering from acute mania, who spent entire days in scribbling like rubbish, and inditing numerous letters to persons she did not know. In her case, and in many others, it will be found that there is a disposition to use capital letters to an extraordinary degree and to cross-write, so much sometimes as to destroy legibility. In passing judgment upon the letters of doubtful cases of insanity, we must carefully read them through, bearing in mind that with the insane any sustained effort is impossible, and it is probable that in a long letter we shall find some manifestation of disordered mental action before the end is reached. The specimens upon the preceding page are examples of penmanship written by three general paretics, in different stages of the disease.

In some cases we have but little difficulty in making a diagnosis by the letter alone, because of the striking incoherency, which the individual may restrain in conversation but which he indulges in when left to himself; and in suspected cases, where patients are on their guard, it is well to ask them to write a letter.

In medico-legal questions one should not be too ready to express an opinion upon any document or letter that may be put in evidence, for ordinary bodily weakness may give rise to a tremulousness in the handwriting, and it will not do to make a hasty diagnosis upon this feature of a document. In other cases legal instruments may be presented to the expert witness for his opinion where there are intermissions and interlineations. Care must therefore be exercised in taking into account the pertinency of the interlineations and the presence of marginal notes and corrections.

CHAPTER V.

THE COMMITMENT OF THE INSANE—ABSTRACT OF THE LAWS OF THE VARIOUS STATES.

The laws of the different States regarding the commitment of lunatics vary greatly. In all cases, however, judicial endorsement is imperative, and in the State of New York it is necessary that the certificate of the examining physicians shall be approved by the judge of a court of record. In other parts of the country the formalities are more or less rigid, and in Canada a lunatic who is not dangerous may be received into an asylum by the approval of the superintendent. Besides the legal steps to be taken by the friends of the insane person, there are various local regulations pertaining to the asylums themselves. It is always necessary to give bonds, or to show that the alleged lunatic is without means, and proper blanks are prepared for the purpose. When such is the case, the pauper lunatic may be committed and cared for, after representation has been made to a local police magistrate or to the officers of the poor. In *New York City* the lunatic may be placed under arrest, and he is then transferred to a jail for examination by the medical officers of the Department of Public Charities and Correction.

It is necessary, when the patient is sent to a pay asylum, for two physicians to be appointed examining physicians. The *New York* laws are as follows:

Section 1. No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home, or retreat, for the care and treatment of the insane, except upon the certificate of two physicians, under oath, setting forth the insanity of such person. But no person shall be held in confinement in any such asylum, for more than five days, unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may, in his discretion, call a jury in each case to determine the question of lunacy.

Sec. 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless said physician be of reputable character, a graduate of some incorporated medical college, a

permanent resident of the State, and shall have been in the actual practise of his profession for at least three years, and such qualifications shall be certified to by a judge of any court of record. No certificate of insanity shall be made except after a personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment.

SEC. 3. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of committing him to an asylum of which the said physician is either the superintendent, proprietor, an officer, or a regular professional attendant therein.

In the State of *Maine* the certificates of at least two respectable physicians are necessary. Sections 16 and 17 of the revised statutes, 143, §§ 11, 12.

SECTION 16. Parents and guardians of insane minors, if of sufficient ability to support them there, within thirty days of an attack of insanity, without any legal examination, shall send them to the hospital, and give the treasurer thereof the bond required, or to some other hospital for the insane.

SEC. 17. All insane persons, not thus sent to any hospital, shall be subject to examination as hereinafter provided. The municipal officers of towns shall constitute a board of examiners, and, on complaint in writing of any relative, or justice of the peace of their town, they shall immediately inquire into the condition of any insane person therein, call before them all testimony necessary for a full understanding of the case, and if they think such person is insane, and that his comfort and safety, and that of others interested, will be thereby promoted, they shall forthwith send him to the hospital with a certificate stating the fact of his insanity, and the town in which he resided, or was found at the time of examination, and directing the superintendent to receive and detain him till he is restored or discharged by law, or by the superintendent and trustees. And they shall keep a record of their doings, and furnish a copy to any interested person requesting and paying for it.

The *Vermont* laws, approved November 28, 1882, are as follows:

SECTION 1. Section 2906 of the revised laws is hereby amended so as to read as follows:

No person, except as hereinafter provided, shall be admitted to, or detained in an insane asylum, as a patient or inmate, except upon the certificate of such person's insanity, stating their reasons for adjudging such person insane, made by two physicians of unquestioned integrity and skill residing in the probate district in which such insane person resides, or, if such insane person is not a resident of the State, in the probate district in which the asylum is situated; or, if such insane person is a convict in the State prison or House of Correction, such physicians may be residents of the probate district in which such place of confinement is situated. And the two

physicians making such certificate shall not be members of the same firm and neither shall be an officer of an insane asylum in this State.

SEC. 2. The next friend or relative of a person whose insanity is certified to, as above provided, may appeal from the decision of the physicians so certifying him to be insane to the supervisors of the insane, which appeal shall be noted on the certificate. The supervisors shall, when such appeal is taken, forthwith examine the case, and if, in their opinion, there was not sufficient ground for making such certificate, they shall avoid the certificate, otherwise they shall endorse their approval upon it. Such examination by the supervisors shall be had in the town where the appellant resides.

SEC. 3. When the next friend or relative of such a person takes an appeal, as above provided, he shall not be received in an insane asylum while the appeal is pending before the supervisors. And a trustee, or other officer, or employee of an insane asylum who receives or detains a person in such asylum whose insanity is not attested by a legal certificate which has not been appealed from or by a certificate duly approved by the supervisors on appeal, shall be imprisoned in the State prison not more than three years.

SEC. 4. Idiots and persons *non compos*, who are not dangerous, shall not be confined in any asylum for the insane. And if any such persons are so confined, the supervisors of the insane shall cause them to be discharged.

The *New Hampshire* laws provide (Secs. 12, 13, 18):

SECTION 12. If any insane person is in such condition as to render it dangerous that he should be at large, the Judge of Probate—upon petition by any person, and such notice to the selectmen of the town in which such insane person is, or to his guardian, or to any other person, as he may order, which petition may be filed, notice issued, and a hearing had in vacation or otherwise—may commit such insane person to the asylum.

SEC. 13. If any insane person is confined in any jail, the Supreme Court may order him to be committed to the asylum, if they think it expedient.

SEC. 18. No person shall be committed to the asylum for the insane, except by order of the court, or the Judge of Probate, without the certificate of two reputable physicians that such person is insane, given after a personal examination made within one week of committal; and such certificate shall be accompanied by a certificate from a judge of the Supreme Court, or Court of Probate, or mayor, or chairman of the selectmen, testifying to the genuineness of the signatures, and the respectability of the signers.

The more important laws regarding the commitment of the insane in *Massachusetts*, are appended:

SECTION 11. A judge of the Supreme Judicial Court or Superior Court, in any county, where he may be, and a judge of the Probate Court, or of a Police, District, or

Municipal Court, within his county, may commit to either of the State lunatic hospitals any insane person, then residing or being in said county, who in his opinion is a proper subject for its treatment or custody.

SEC. 12. Except when otherwise specially provided, no person shall be committed to a lunatic hospital, asylum, or other receptacle for the insane, public or private, without an order or certificate therefor, signed by one of the judges named in the preceding section, said person residing or being within the county as therein provided. Such order or certificate shall state that the judge finds the person committed is insane, and is a fit person for treatment in an insane asylum. And the said judge shall see and examine the person alleged to be insane, or state in his final order the reason why it was not deemed necessary or advisable to do so. The hearing, except when a jury is summoned, shall be at such place as the judge shall appoint. In all cases, the judge shall certify in what place the lunatic resided at the time of his commitment; or if confinement is ordered by a court, the judge shall certify in what place the lunatic resided at the time of the arrest, in pursuance of which he was held to answer before such court; and such certificate shall, for the preceding section, be conclusive evidence of his residence.

SEC. 13. No person shall be so committed, unless in addition to the oral testimony there has been filed with the judge a certificate signed by two physicians, each of whom is a graduate of some legally organized medical college, and has practised three years in the State, and neither of whom is connected with any hospital or other establishment for treatment of the insane. Each must have personally examined the person alleged to be insane within five days of signing the certificate; and each shall certify that in his opinion said person is insane and a proper subject for treatment in an insane hospital; and shall specify the facts on which his opinion is founded. A copy of the certificate, attested by the judge, shall be delivered by the officer or other person making the commitment, to the superintendent of the hospital or other place of commitment, and shall be filed and kept with the order.

SEC. 14. A person applying for the commitment or for the admission of a lunatic to a State lunatic hospital, under the provisions of this chapter, shall first give notice in writing to the mayor, or one or more of the selectmen of the place where the lunatic resides, of his intention to make such application; and satisfactory evidence that such notice has been given shall be produced to the judge in cases of commitment.

SEC. 15. Upon every application for the commitment or admission of an insane person to a hospital or asylum for the insane, there shall be filed with the application, or within ten days after the commitment or admission, a statement in respect to such person, showing, as nearly as can be ascertained, his age, birthplace, civil condition, and occupation; the supposed cause and the duration and character of his disease, whether mild, violent, dangerous, homicidal, suicidal, paralytic, or epileptic; the previous or present existence of insanity in the person or his family; his habits in regard to temperance; whether he has been in any lunatic hospital, and if so, what one, when, and how long; and, if the patient is a woman, whether she has borne

children, and, if so, what time has elapsed since the birth of the youngest; the names and address of his father, mother, children, brothers, sisters, or other next of kin, not exceeding ten in number, and over eighteen years of age, when the names and address of such relatives are known by the person or persons making such application, together with any facts showing whether he has or has not a settlement, and if he has a settlement, in what place; and if the applicant is unable to state any of the above particulars, he shall state his inability to do so. The statement, or a copy thereof, shall be transmitted to the superintendent of the hospital or asylum, to be filed with the order of commitment, or the application for admission. The superintendent shall, within two days from the time of the admission or commitment of an insane person, send, or cause to be sent, notice of said commitment in writing, by mail, postage prepaid, to each of said relatives, and to any other two persons whom the person committed shall designate.

SEC. 16. After hearing such other evidence as he may deem proper, the judge may issue a warrant for the apprehension and bringing before him of the alleged lunatic, if in his judgment the condition or conduct of such person renders it necessary or proper to do so. Such warrant may be directed to and be served by a private person named in said warrant, as well as by a qualified officer; and pending examination and hearing, such order may be made concerning the care, custody, or confinement of such alleged lunatic as the judge shall see fit.

SEC. 17. The judge may, in his discretion, issue a warrant to the sheriff, or his deputy, directing him to summon a jury of six lawful men, to hear and determine whether the alleged lunatic is insane.

In the State of *Rhode Island* patients may be committed upon the order of a justice's court or one of the justices of the Supreme Court, or by a guardian, or by relatives and friends, upon the certificate of two practising physicians of good standing.

All have unrestricted communication with two commissioners appointed by the Legislature and are visited weekly by a committee of the trustees.

According to the *Connecticut* laws of 1869:

SECTION 1. Any lunatic or distracted person may be placed in a hospital, asylum, or retreat for the insane, or other suitable place of detention, either public or private, by his or her legal guardian, or relatives or friends in case of no guardian; but in no case without the certificate of one or more reputable physicians, after a personal examination made within one week of the date thereof, which certificate shall be duly acknowledged before some magistrate or other officer authorized to administer oaths, or to take the acknowledgment of deeds in the State where given, who shall certify to the genuineness of the signature, and to the respectability of the signer.

The laws of *New Jersey* regulating the protection and admission of the insane to asylums are quite numerous. Section 17 of the laws of 1875–76 is as follows:

And be it enacted, That no person shall be admitted into said asylum as a patient except upon an order of some court or judge authorized to send patients, without lodging with the superintendent first, a request, under the hand of the person by whose direction he is sent, stating his age and place of nativity, if known, his Christian name and surname, place of residence, occupation, and degree of relationship or other circumstance of connection between him and the person requesting his admission; and, second, a certificate dated within one month, under oath signed by a respectable physician, of the fact of his being insane; each person signing such request or certificate shall annex his profession or occupation and the county and State of his residence, unless these facts appear on the face of the document.

In *Pennsylvania* the laws of 1869 thus provide for the incarceration of patients:

Insane persons may be placed in a hospital for the insane by their legal guardians, or by their relatives or friends in case they have no guardians, but never without the certificate of two or more reputable physicians, after a personal examination made within one week of the date thereof, and this certificate to be duly acknowledged and sworn to, or affirmed before some magistrate or judicial officer, who shall certify to the genuineness of the signatures and to the responsibility of the signers.

The law of *Virginia* requires, in order to commit a person to an asylum, that the suspected person must be brought before a commission in lunacy, called for the purpose, consisting of three (3) magistrates of the city or county in which he resides, and that they shall summon the family physician and other witnesses, to make a thorough examination of the case. If after a careful investigation the person is adjudged insane, he is sent to an asylum, with a record of the examination, and the superintendent is required to admit him, if there is a vacancy. The law does not contemplate the admission of the insane of other States.

In *Maryland* a patient may be committed upon the certificate of one physician. At the Mount Hope Asylum two certificates are required.

In *North Carolina*, sections 13 and 14 of the laws of 1881, thus provide:

SECTION 13.—The judges of the Superior Courts, in their respective districts, shall allow to be committed to the asylum, as a patient, any person who may be confined in jail on a criminal charge of any kind, or degree, or upon a peace warrant, whenever the judge shall be satisfied, by a verdict of jury of inquisition, that the alleged criminal act was committed while such person was insane.

SEC. 14.—For admission into the asylum in other cases the following proceed-

ings shall be had: Some respectable citizen, residing in the county of the alleged insane person, shall make before and file with a justice of the peace of the county an affidavit in writing.

In *Mississippi* the insane person may be committed by a "lunacy inquiry," requiring six jurors, or, as is usually the case, he may be received in an asylum, upon the certificate of two physicians, who shall swear before a justice or a county clerk.

In *Alabama* the indigent insane are received in the State Asylum on certificate of the Probate Judges of their respective counties, attested by one respectable physician and other witnesses, with or without a jury, as the judge may decide.

Paying patients are received on certificate of one respectable physician, accompanied by the usual bond to secure payment of board.

The laws of *Ohio* in relation to the care of the insane are quite voluminous. The Revised Statutes thus provide:

SECTION 702. For the admission of patients to any of the asylums for the insane, the following proceedings shall be had: Some resident citizen of the proper county shall file with the Probate Judge of such county an affidavit as follows:

THE STATE OF OHIO, ——— COUNTY, *ss*:

———— ————, the undersigned, a citizen of ——— County, Ohio, being sworn, says that he believes ——— ——— is insane (or, that, in consequence of his insanity, his being at large is dangerous to the community). He has a legal settlement in ———— township, in this County.

Dated this ——— day of ———, A. D. ——.

———— ————

SEC. 703. When the affidavit is filled, the Probate Judge shall forthwith issue his warrant to some suitable person, commanding him to bring the person alleged to be insane before him, on a day therein named, which shall not be more than five days after the affidavit has been filed, and shall immediately issue subpœnas for such witnesses as he deems necessary (one of whom shall be a respectable physician), commanding the persons in such subpœnas named to appear before the judge on the return day of the warrant: and if any person disputes the insanity of the party charged, the Probate Judge shall issue subpœnas for such person or persons as are demanded on behalf of the person alleged to be insane; provided, that if, by reason of the character of the affliction or insanity of said person, it is deemed unsuitable or improper to bring the person into such Probate Court, then the Probate Judge shall personally visit said person and certify that he has so ascertained the condition of the person by actual inspection, and all proceedings as herein required may then be had in the absence of such person.

SEC. 704. At the time appointed (unless for good cause the investigation is

adjourned) the judge shall proceed to examine the witnesses in attendance; and if, upon the hearing of the testimony, he is satisfied that the person so charged is insane, he shall cause a certificate to be made out by the medical witness in attendance, which shall set forth the following. (Here follows a list of questions relating to the patient's symptoms which are to be found in the certificate.)

SEC. 705. The Probate Judge, upon receiving the certificate of the medical witness, made out according to the provisions of the preceding section, shall forthwith apply to the superintendent of the asylum for the insane situated in the district in which such patient resides; he shall, at the same time, transmit copies, under his official seal, of the certificate of the medical witness, and of his finding in the case; upon receiving the application and certificate the superintendent shall immediately advise the Probate Judge whether the patient can be received, and, if so, at what time; the Probate Judge, when advised that the patient will be received, shall forthwith issue his warrant to the sheriff, or any other suitable person, commanding him to forthwith take charge of and convey such insane person to the asylum; if the Probate Judge is satisfied from proof that an assistant is necessary he may appoint one person as such assistant. The warrant of the Probate Judge shall be substantially as follows:

THE STATE OF OHIO, ——— COUNTY, *ss.*
OFFICE OF THE PROBATE JUDGE OF SAID COUNTY.

To ——— ———:

All the proceedings prescribed by law to entitle ——— ——— to be admitted into the asylum for the insane having been had, you are commanded forthwith to take charge of and convey said ——— ——— to the asylum for the insane at ———, and you are authorized to take ——— ——— as assistant; after executing this warrant, you will make due return thereof to this office.

Witness my hand and official seal this —— day of ———, A.D., ——.

———— ————,
Probate Judge.

Upon receiving such patient the superintendent shall indorse upon the warrant a receipt substantially as follows:

ASYLUM FOR THE INSANE, AT ———,
———— ————, A.D., ——.

Received this day, of ——— ———, the patient named in the within warrant.

———— ————,
Superintendent.

This warrant, with the receipt of the superintendent thereon, shall be returned to the Probate Judge who issued it, and shall be filed by him with the other papers relating to the case. In all cases the relatives of the insane person shall have a right, if they choose, to convey such insane person to the asylum for the insane, and in such case the warrant shall be directed to one of such relatives, directing him to take

another of the relatives as his assistant. If the medical witness does not state in his certificate that the patient is free from all infectious diseases and from vermin, the Probate Judge shall refuse to make the application to the superintendent, as herein provided, until such certificate is furnished. The relatives of any person charged with insanity, or who is found to be insane, shall, in all cases, have the right to take charge of and keep such insane person charged with insanity, if they desire so to do; and in such case the Probate Judge before whom the inquest has been held shall deliver such insane person to them.

The insane of *Indiana* are committed by two magistrates, who are required to visit the alleged lunatic in person and report to the clerk of County Court, who subpœnas witnesses and sends a certified copy of proceedings to Superintendent of State Hospital, requesting admission.

Chapter 85, Revised Statutes of 1874 of the State of *Illinois*, contains the following provisions for the commitment of the insane:

"That upon the petition of a near relative of the suspected person, or any respectable person in the county, made to a judge of the County Court, the latter may direct the clerk to issue a writ directed to the sheriff or person having in custody the alleged lunatic, to bring before him the person; and the clerk is furthermore directed to issue the necessary subpœnas for witnesses. A jury of six persons, one of whom shall be a physician, shall be empanelled to try the case. The case shall be tried in the presence of the alleged lunatic, who shall be entitled to the benefit of counsel. The jury shall return a written and signed verdict. If it be that the person is declared insane a committal is to be made out by the clerk, who shall confer with the superintendent, and a warrant shall be issued and directed to the sheriff, or in preference, the relatives of the insane person. The court may make an order to temporarily commit any person.

The law of *Michigan* which concerns the commitment of the insane is as follows:

Section 26. When a person in indigent circumstances, and not a pauper, becomes insane, application may be made in his behalf to the Probate Judge of the county where he resides; and said Probate Judge shall call two respectable physicians, and other credible witnesses, and also immediately notify the prosecuting attorney of his county and the supervisor of the township or ward in which such insane person resides, of the time and place of meeting, whose duty it shall be to attend the examination and act in behalf of said county; and said Probate Judge shall fully investigate the facts in the case, and either with or without the verdict of a jury, at his discretion, as to question of insanity, shall decide the case as to his indigence, but the decision as to indigence shall not be conclusive in such county; and if the Probate Judge certifies that satisfactory proof has been adduced, showing him insane, and his

estate is insufficient to support him and his family, or, if he has no family, himself, under the visitation of insanity, on his certificate, under the seal of the Probate Court of said county, he shall be admitted into the asylum and supported there at the expense of the county to which he belongs until he shall be restored to soundness of mind, if affected in two years, and until otherwise ordered. The Judge of Probate in such cases shall have power to compel the attendance of witnesses and jurors, and shall file the certificates of physicians, taken under oath, and other papers, in his office, and enter the proper order in his (the) journal of the Probate Court in his office. The Judge of Probate shall report the result of his proceedings to the supervisors of his county, if such person belongs to that county, whose duty it shall be, at the next annual meeting thereafter, to raise money requisite to meet the expenses of support accordingly.

In *Kentucky* the insane are committed by the inquest of a jury and by order of court, their presence in open court being required, unless, upon the affidavit of two respectable physicians, it is shown that it would be dangerous to bring the supposed lunatic into court.

In *Iowa*, I am informed by Dr. Hill, the *modus operandi* of commitment is the following:

A practising physician, a practising lawyer, appointed by the Circuit Judge, who usually continue in office during good behavior, and the clerk of the courts, constitute the commissioners of insanity. The physician on the commission, or the family physician, goes to the home of the patient, often without informing him why he is there, and obtains answers to questions in the "Return of Physician." Then the commissioners meet and decide whether the person is insane, and whether to send him to the hospital. "If they shall be of opinion, from such preliminary inquiries as they may make . . . that such a course would probably be injurious to such person or attended with no advantage, they may dispense with such presence." Two blanks are filed with the superintendent and one with the clerk of the court.

The insane has a right to appeal to court within ten days, a right to appeal to court once in six months thereafter, as well as the right to habeas corpus. They may be discharged from an asylum by the visiting committee.

The laws relating to the care of the Insane in *Wisconsin* are quite simple. Lunatics are committed only by the County Judge. The alleged insane person, or any person acting in his behalf, can request a jury trial, in which case it must be accorded. If tried by jury, the judge is authorized to clear the court of all persons except those immediately interested. If the person is found insane, he is regularly committed by order of the court and under its seal.

In this State, as well as in some others, the physicians who examine the patient are required to answer a long list of questions relating to the circumstances of the patient, the history of the disease, his habits, heredity, etc.

In *Minnesota*, according to the laws of 1874, Sec. 134, and 1877, Sec. 75, p. 123:

Patients, how committed.—The Probate Judge, or in his absence the court commissioner of any county, upon information being filed before him that there is an insane person in his county needing care and treatment, shall thereupon make an order appointing some regular physician or physicians (not less than one or more than three) to examine the said person, to ascertain the fact of insanity, a certified copy of which order shall be delivered to said physician or physicians, and shall proceed to the hearing of such information, and shall hear and examine the proofs of said information, and if the said person is found to be insane, he shall, upon the written certificate of the examining physician or physicians, "that the said person in his or their opinion is insane and a proper subject for hospital treatment," said certificate being verified by the oath of the physician or physicians, issue duplicate warrants committing the person so found insane to the care of the superintendent of the hospital, and shall place the warrant in the hands of some friend or other suitable person, whom he shall authorize to convey the said insane person to the hospital.

In *Missouri* there is a State law, and in St. Louis there is a separate local regulation governing the commitment of the insane.

The municipal law of 1882 is thus worded:

SECTION 1.—Ordinance number 11,668. It shall be the duty of the police of the city of St. Louis, if any lunatic, idiot, or person of unsound mind, who is a resident of the city of St. Louis, be found by them within the limits of the city of St. Louis, in such condition as to endanger the lives or property of themselves or of others, or who are unprotected by guardians or friends and without means, to take such person into custody and give notice thereof forthwith to the Chief of Police, who shall immediately notify the Health Commissioner that such person is in his custody, and in said notice he shall give the Health Commissioner the name, age, place of residence, length of residence in the city, occupation when known, the locality where person was arrested, circumstances causing the arrest, and all other information he may have or can obtain in relation to said person. The Health Commissioner, on receipt of such report from the Chief of Police, shall cause an examination to be made of such person by one or more physicians of the Health Department. If upon such examination such person is found to be of unsound mind and an unfit person to be at large, the physician making such examination shall certify such fact to the Health Commissioner, whose duty it shall then be to take charge of such lunatic, idiot, or insane person and place such person in the insane asylum of the city of St. Louis, and to report to the Board of Health his action thereon, and all facts and information regarding such lunatic, idiot, or insane person in his possession, or that may come into his possession; but if the physician making such examination shall certify to the Health Commissioner that the person or persons reported by the Chief of Police as lunatic, idiot, or insane person be not of unsound mind or an idiot, and in his opinion not a fit subject

for treatment in an insane asylum, the Health Commissioner shall give notice of the fact to the Chief of Police, and shall not receive such person from his custody. If, however, the physician or physicians examining such person should certify to the Health Commissioner that such person be a fit subject for hospital treatment, then the Health Commissioner shall place such person in one of the hospitals of the city.

Whenever any lunatic, idiot, or person of unsound mind may be arrested by the police of the city of St. Louis, and is found to be a non-resident of the City of St. Louis, the Health Commissioner shall report the facts to the Mayor, who shall, if he thinks proper, order the Chief of Police to cause such persons to be returned to the locality to which they belong, and all expenses attending the return of such person shall be borne by the city of St. Louis, but if the Mayor is of the opinion that it is not practicable to return such person, then the person shall be disposed of as provided in Section 1 of this article."

In *Arkansas* the recent laws for the commitment of the insane provide:

"SECTION 2. Whenever it shall appear that any person entitled to admission to the State Lunatic Asylum is insane, any reputable citizen of the State may file a written statement with the County and Probate Judge of the county in which such supposed insane person may reside.

"SEC. 3. Any County and Probate Judge with whom a citizen's statement may have been filed, as set forth in Section 2 of this Act, shall appoint a time, as soon thereafter as may be practicable for hearing, and at such time appointed shall proceed to hear the testimony of such competent witnesses as may be produced at such hearing, and in addition to the testimony of such witnesses, shall cause such alleged insane person to be examined by one or more regular practising physicians of good standing, who shall present in writing to such County and Probate Judge a sworn statement of the result of his or their examination, including the following interrogatories, with their answers as part of the same."

(Here follow a number of interrogatories relating to the patient's antecedents, present condition, etc., which may be found in the blank certificate.)

In *Texas* the insane person is committed by a jury of six, a charge of lunacy having first been brought before the County Court. Witnesses are subpœnaed, and upon a verdict of lunacy the person is deprived of his liberty.

The law of *California* necessitates that application shall be made to a Judge of the Supreme Court by the friends of the patient. That after the presentation of a certificate of examination, signed by at least two physicians of good standing, the judge shall sign an order of commitment, which also provides for the appointment of a guardian; as in some other States, a number of interrogatories are included in the medical certificate.

For the Napa State Asylum the following laws were passed in 1876:

SECTION 18. No case of idiocy, imbecility, harmless, chronic, mental unsoundness, or acute *mania à potu*, shall be committed to this asylum, and whenever in the opinion of the resident physician, after a careful examination of the case of any person committed, it shall be satisfactorily ascertained by him that the party has been unlawfully committed, and that he or she comes under the rule of exemptions provided for in this section, he shall have the authority to discharge such person so unlawfully committed, and return him or her to the county from which committed, at the expense of such county.

SEC. 19. The judge shall inquire into the ability of insane persons committed by him to the asylum to bear the actual charges and expenses for the time that such person may remain in the asylum. In case an insane person, committed to the asylum under the provisions of this Act, shall be possessed of real or personal property sufficient to pay such charges and expenses, the judge shall appoint a guardian for such person, who shall be subject to all the provisions of the general laws of this State in relation to guardians, as far as the same are applicable; and when there is not sufficient money in the hands of the guardian, the judge may order a sale of property of such insane person, or as much thereof as may be necessary, and from the proceeds of such sale the guardian shall pay to the Board of Trustees the sum fixed upon by them each month quarterly in advance for the maintenance of such ward; and he also shall, out of the proceeds of such sale, or such other fund as he may have belonging to such ward, pay for such clothing as the resident physician shall, from time to time, furnish such insane person; and he shall give a bond, with good and sufficient sureties, payable to the Board of Trustees, and approved by the judge, for the faithful performance of the duties required of him by this Act, as long as the property of his insane ward is sufficient for the purpose. Indigent insane persons having kindred of degree of husband or wife, father, mother, or children, living within this State of sufficient ability, said kindred shall support such insane persons to the extent prescribed for paying patients.

SEC. 20. Non-residents of this State, conveyed or coming herein while insane, shall not be committed to or supported in the Napa State Asylum for the Insane; but this prohibition shall not prevent the commitment to and temporary care in said asylum of persons stricken with insanity while travelling or temporarily sojourning in the State; or sailors attacked with insanity upon the high seas, and first arriving thereafter in some port within this State.

In *Oregon* a complaint must be made by two householders to the County Judge. The patient will be examined under supervision of the County Judge assisted by the District Attorney and two physicians, upon whose certificate (if found to be insane) the patient will be sent to the asylum. One copy of the commitment is sent to asylum, one copy retained in county from which patient is sent, and one copy transmitted to Secretary of State.

I am indebted to Dr. J. M. Wallace for the following abstract of the *Canadian* laws:

There are two methods of committing insane persons to an asylum in Ontario. The ordinary process, and by warrant of the Lieutenant-Governor of the province. The lunatic is committed to jail as a dangerous lunatic, and is kept there until he is examined by the County Judge and two physicians, who each certify that he is insane and dangerous to be at large. The certificates and other commitment papers are forwarded to the Provincial Secretary, who is a member of the Government; he advises the Lieutenant-Governor to issue a warrant for the transfer of the lunatic from the jail to an asylum. By the ordinary process, application for admission is made to the Medical Superintendent by the friends of the lunatic; blank forms are sent out to be filled, and when returned and found satisfactory, the Medical Superintendent sends an order for the admission of the patient.

PLATE I.

IDIOCY.

J. R——, aged forty-three, is a case well known in the literature of psychiatry. He weighs 72 pounds, is of short stature (4 feet 7½ inches), and his head is perhaps one of the smallest reported in this country. The circumference from a point in front one inch above the root of the nose, to one at the level of the occipital protuberance behind is 15 inches. The bi-aural arc measurement is 8 inches, and the antero-posterior arc is 8 inches. This is over a thick growth of short coarse hair, and at least an inch difference must exist between the true measurements and those made. His teeth are nearly all gone and he has a double cataract. His general health is good and he is well nourished. His intelligence is almost nil. He has been taught to swear, and can say a few words without any idea of their import. He is good-tempered and easily amused. His left ear is the seat of old inflammatory contraction, and is much deformed.

PLATE II.

IMBECILITY.

A. B——, aged twenty-five. Received in the asylum two years before his death, which occurred last year (1882).

He had a very shrill voice, and was quite excitable, crying and laughing without cause. He was in the habit of collecting bits of paper and straw which he chewed, and kept a supply in his shoes and socks. He was sometimes so violent as to need restraint and was quite offensive in his habits. For some months previous to death he suffered from Bright's disease, from which he ultimately died.

PLATE III.

MELANCHOLIA ATTONITA.

C. C——, aged thirty-seven. Duration of insanity seven months. Cause unknown. Auditory hallucinations. She hears voices commanding her not to eat, and it is often necessary to feed her with the tube. She has delusions of persecution. Her movements are sluggish, and she assumes fixed attitudes. There is rarely any play of facial expression and she takes no notice of those about her.

PLATE IV.

CHRONIC MELANCHOLIA.

X—— has been melancholic for some years, and the disease is drifting into dementia.

PLATE V.

SUBACUTE MANIA.

E. E——, aged twenty-eight. Duration of insanity six years. Originally acute mania of a violent type. Cause unknown. Auditory hallucinations. She has communication with divine personages, and delusions of grandeur, believing that she is Queen of Ireland, and is the kinswoman of every one about her. She is remarkably obscene and alludes to her carnal relations, which are of a peculiar kind, and she is incoherent and loquacious. Her hair is coarse and becomes bristling and erect when she is excited.

PLATE VI.

CHRONIC MANIA.

J. B——, aged fifty-one, has been in the Ward's Island Asylum eleven years. No history of cause. He is incoherent and excitable, but quite tractable. Disclaims his proper name, and has delusions that his bones are all broken and his head smashed. Is clownish in his behavior, and sings at the top of his voice. He is fond of decorating himself with rubbish and dirty finery.

PLATE VII.

DEMENTIA.

A. W——, aged forty-four. Duration of insanity four years. Cause intemperance. Her dementia was the sequel of acute melancholia. She has had visual hallucinations, and has seen spectres and other frightful things. She has had suicidal tendencies, and has heard voices which told her to destroy herself. Her violence has been remarkable. She has now (March, 1883) lapsed into a condition of dementia attended by great restlessness and violence. It is necessary to keep her strapped in the chair. Her habits are of the filthiest kind, and she needs constant attention. There is a constant accumulation of saliva which she ejects with violence, there being the automatic expectoration alluded to by some writers. She betrays no indication of the mental operations except in her appearance.

PLATE VIII.

DEMENTIA.

R. P. H——, aged thirty-six. There is a strong family history of insanity, five of his uncles being insane. He is profoundly demented, and is dirty, stupid, and careless. His disease has lasted nineteen years, and followed melancholia.

PLATE IX.

GENERAL PARESIS.

J. McK——, aged thirty-seven. He has been in the asylum two years. There is no known cause of the disease. He has had delusions of wealth, but is now demented and stupid.

PLATE X.

Fig. 1. Acute otheotoma: *a*, the opening into an abscess. It will be noticed that there are several small holes about the large opening, and from these, as well as the latter, a quantity of sanious pus escapes. Fig. 2 shows the result of a previous subacute inflammation. Fig. 3. Elongation after pulling. Figs. 4, 5. Defective irregular teeth in idiots. Fig. 6. Syphilitic teeth.

PLATE I.

HAMILTON'S TYPES OF INSANITY.

PLATE II.

HAMILTON'S TYPES OF INSANITY.

PLATE III.

HAMILTON'S TYPES OF INSANITY.

PLATE IV.

HAMILTON'S TYPES OF INSANITY.

PLATE V.

HAMILTON'S TYPES OF INSANITY.

PLATE VI.

HAMILTON'S TYPES OF INSANITY.

PLATE VII.

HAMILTON'S TYPES OF INSANITY.

PLATE VIII.

HAMILTON'S TYPES OF INSANITY.

PLATE IX.

HAMILTON'S TYPES OF INSANITY.

PLATE X.

(See text for reference.)

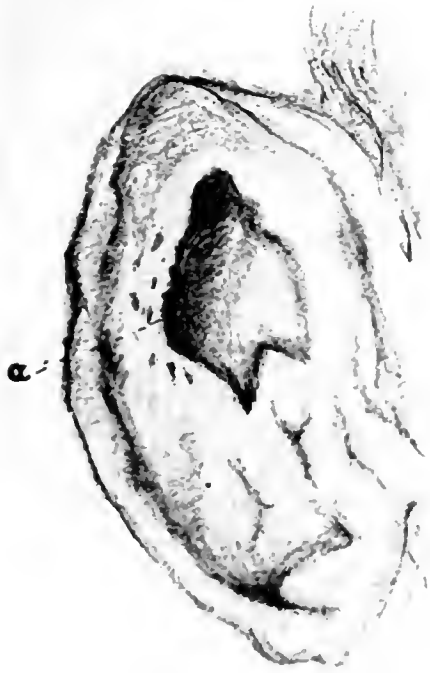


Fig. 1.

Fig. 2.

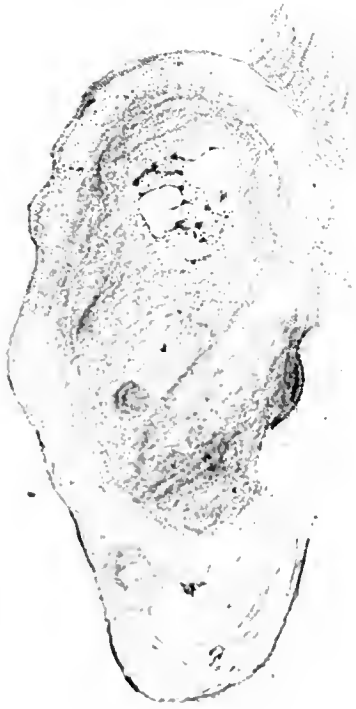


Fig. 3.

(Figs. 1, 2 and 3 are enlarged.)

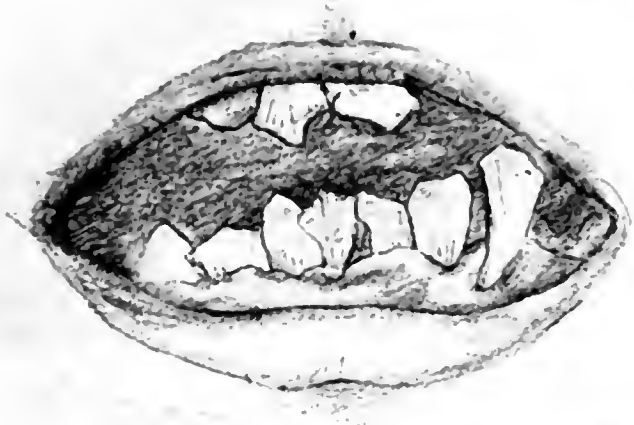


Fig. 4.

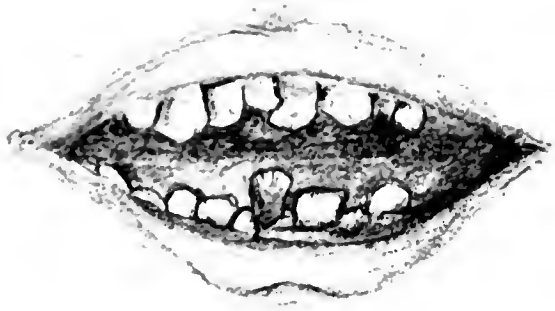


Fig. 5.

Fig. 6.