

Mc. Bride

(Gas. H.)

EPILEPTIC INSANITY.

—BY—

JAMES H. McBRIDE, M. D.

Superintendent of the Milwaukee Sanitarium
for Nervous and Mental Disease,
at Wauwatosa, Wis.

A Lecture Delivered at the Chicago Polyclinic
Medical College, May, 1893.

REPRINT FROM THE
REVIEW OF INSANITY AND NERVOUS DISEASE.
FOR SEPTEMBER, 1893.





EPILEPTIC INSANITY.

BY JAMES H. McBRIDE, M. D.

[SUPT. MILWAUKEE SANITARIUM FOR NERVOUS AND MENTAL DISEASE.]

The clinical features of Epileptic Insanity entitle it to be considered separately, though its manifestations are variable as regards the type of disorder. In some cases we observe the symptoms of acute mania, in others, occasional but pronounced depression, and in others dementia. The form of disorder doubtless depends upon the degree of dissolution of the psychical centers, melancholia being the milder degree, mania a greater degree of dissolution, and dementia a more serious dissolution still, showing as it does the wreckage that is left by repeated storms of convulsion.

In speaking of Epileptic Insanity, it is necessary to treat with some fullness epilepsy itself, for they cannot well be separated, the insanity being the reverse side of the epileptic picture.

At the outset we naturally ask, "What is the condition of the nerve centers that results in the epileptic fit?" The view which is generally accepted is that the fit is due to a sudden and violent discharge of nerve force, which discharge results in unconsciousness or convulsions or both. The function of the nerve cell is to store up and expend nerve force. In

Lecture delivered to the students of the Chicago Policlinic, May, '93.

health this discharge is only in response to stimulus, but in certain diseased states the cells become morbidly unstable and discharge, without a stimulus, violently and suddenly. Twenty years or more ago, it was the fashion to consider arterial cerebral spasm as the proximate cause of the epileptic fit, but this explained nothing, not even itself, and only exchanged one pathological puzzle for another. The theory, therefore, that epilepsy is primarily a discharge of unstable nerve cells is, for the present at least, the most reasonable explanation.

It has been said that this is a theory only and cannot be demonstrated, but it accounts for the phenomena and should be valued accordingly. We should not despise theories, for they are the scaffolding by the aid of which all science has been built and are necessary to progress. We are indebted to theories for much of our scientific knowledge in medicine and out of it, and though the theories often bear little resemblance to the facts to which they have led, they have at least held the lantern for man while he searched.

What is the cause of the molecular instability of cells that is exhibited in the phenomena of epilepsy? One view commonly held is that this instability is due to some perversion of nutrition through which the structure of the cells becomes faulty and therefore excessively unstable. In this view there is not necessarily a pathological condition demonstrable by the microscope, but some failure in the nutritive supply whereby the inhibitory power of the higher cortical centers is lost, and a morbid instability with involuntary discharge results.

Dr. Bevan Lewis claims to have found in epilepsy a certain pathological condition which, to his view, explains the phenomena of the disease. This consists in a degeneration of the nucleus of the cell which he claims is a constant factor in epilepsy. You know that the physiologists teach that the cell nucleus in some way presides over the nutrition of the cell and also acts as an inhibitory or controlling center of the cell. If the nucleus is diseased, the cell fails in the performance of

its function and degenerates. Dr. Lewis finds in epilepsy degeneration of the nucleus of the cortical nerve-cells and this so constantly that he considers that it explains the disease. If the nucleus is the inhibitory or controlling center of the cell, presiding over its vital changes and its functions, then when it is degenerated it is to be expected we would find perversion of function, shown especially in irregular, sudden and wasteful explosions of energy. Dr. Lewis claims also to have found nuclear degeneration in alcoholic insanity, a form of disease having many features in common with epileptic insanity, especially in its explosive nature.

With this exception there is nothing definitely known concerning the pathology of epilepsy. The pathological condition of the cornu ammonis found in epileptics by Meynert and others, has probably no significance whatever. The claim by others that there is a morbid over-growth of connective tissue in chronic epilepsy does not explain the pathology of the disease as the over-growth of neuroglia is probably a result and not a cause of the epilepsy.

The ruinous effects of the epileptic seizures upon the finer structure of the brain is apparent when we consider the delicacy and fineness of the ultimate anatomical elements, and that beside these there are myriads of undeveloped elements, waiting in their embryonic state, for the call of function to organize their relations, and discipline their powers to delicate and complex capacity. The violent and brutal discharge of the epileptic convulsion not only fills up the well worn channels of function, but spreads out as a devastating flood of energy over those yet unorganized and delicate nerve tracts, destroying one by one their fine relations and thus by exhaustion and repeated disruption of structure checks further development of the brain.

The arrest of growth and the degeneracy thus initiated are, if the fits continue, progressive and general. The disappearance of the nerve tissue proper involves, however, a pathological necessity, that of the production of some form of tissue

to take the place of that destroyed, and this is the origin of the sclerosis in this and other chronic cerebral diseases. Connective tissue, of which neuroglia is a special form, is a lowly organized tissue having simply the passive function to perform of holding together the higher structures. In lower animal forms we find relatively more neuroglia in the central nervous organs; and as we ascend in the animal series it diminishes in proportion as the nerve elements proper increase; that is nature gradually learns to dispense with this inferior tissue and replaces it with that of higher order. It is thus that she is able to pack in the small box of our skulls, the fifty precious ounces of structure with the wonderful results exhibited in cerebral function. When, however, the highly organized tissues, like nerve cells and fibers, disappear through disease, their complex structure renders their reproduction impossible; and so neuroglia having simple structure and low organization is produced to fill the place. Therefore, we find in the brain of the senile, in those of the chronic insane, and in epilepsy there is an overgrowth of neuroglia because in the absence of the higher tissues it is supplied at a low cost of vitality. The meaning, then, of the morbid growth of cerebral neuroglia in epilepsy is that it is secondary to cell degeneracy, nature uses it to fill up the vacant spaces that decay has made.

It will be interesting to consider a moment the mechanism of the cerebral discharge which is exhibited in epilepsy. If I pile a number of bricks on top of each other on this table, each brick will, when put in place, represent just the energy that I expended in lifting it, and when it falls it will give out just that amount of energy in the form of heat, molecular motion, atmospheric vibration. In lifting them I stored up energy, in their fall this energy was expended. Nerve cells are composed of molecules and atoms, the former being aggregations of the latter. The molecules are associated in twos and sixes, etc., according to the complexity of the functioning cell and their relations are subject to incessant change

to correspond with the processes of function. The invisible servants of vitality are ever at work within the nerve cells placing these tiny nerve molecules and atoms in complex relations and in unstable positions from the fall of which nerve energy is set free. That is, the vital processes, when they lift them into unstable positions, store up in them the energy expended in lifting them, and when upon an appropriate stimulus they fall back as my bricks did into simpler compounds, they give out that stored up energy.

This briefly and imperfectly is the mechanism of normal cell action and morbid action conforms to the same law. In epilepsy there is this same molecular disruption, a disintegration of cell structure with the result not as in health of orderly and purposeful discharge but of violent and disorderly discharge. The path of the discharge varies so that the phenomena of epilepsy may be either motor, sensory or psychical. Epilepsy then, is a morbid discharge from cells which, owing to some abnormal condition, are pathologically unstable.

The different forms of epilepsy may be named as follows:

Grand Mal, or the ordinary epileptic seizure.

Petite Mal, or *cerebral* or *mental epilepsy*.

Nocturnal epilepsy.

Jacksonian epilepsy.

Epilepsy occurs in connection with other diseases, as hemiplegia, syphilis or alcohol, but there is no special form of epileptic insanity resulting from these conditions.

Before proceeding to describe the various epilepsies and their resulting mental affections I wish to speak briefly of an important accompaniant of epilepsy, the so-called *aura epileptica*. This phenomenon is not present in every case of epilepsy, though it often is. The aura, as you know, is some sensation, or motion, or mental impression immediately preceding a fit and announcing its coming. In some cases, there is a vague or strange sensory impression, as of some one's breath being blown in the face or a sudden sensation of some-

thing passing up the spine or leg to the brain, or it may be a twitching or cramping of a muscle or a trembling of some part. The aura may start from any part of the body, from the skin, organs of sense, or from the internal organs, especially those supplied by the vagus nerve. It may involve the special sense organs or it may be purely psychical. One patient always saw a cat before a fit, others see balls of fire, flashes or various colored specks; others hear bells ring, hear roaring or voices; others have hallucinations of senses of smell or taste, the latter, however, being very rare. In some cases there may be a habitual combination of aura affecting two or more senses. One patient said to Dr. Reynolds that just before a fit he always had a horrible smell of green thunder, a rather picturesque description of the involvement of three senses. In some patients there is the recurrence of some emotion or idea at the oncoming of a fit. In one the same idea always occurs, in another a feeling of fright or terror. Pelops, the master of Galen, was the first to use the term "Aura;" his attention being called to it by patients who referred to a sensation of vapour passing from some part to the head. Believing the arteries to contain air, he suggested that their sensation was correct, the vapour passing up the vessels, and he called it "spirituous vapor." Statistics show that a little more than fifty per cent. of epileptics have an aura.

Of the two kinds of epilepsy most commonly met with the *Grand Mal* and the *cerebral* or *mental* epilepsy are not always well demarkated, there being intermediate forms between the two extremes; in some cases the fits partake of the character of both; some cases begin as one form and pass into the other or exhibit both. I had one case under observation in which the first attacks were a temporary aphasia only lasting a few seconds; later, there was temporary aphasia with mental confusion but no unconsciousness. A year later there was development of *Grand Mal* with disappearance of the milder attacks.

It is unnecessary for me to mention the features of the

ordinary epileptic seizure as you are all familiar with it. The insanity that results from any of the varieties of epilepsy may be, as stated, of different form in different cases. The epileptic insane may be depressed and morose, subject to delusions, usually those of persecution and suspicion. Others are violently maniacal; others, without showing any of these types of disorder, become progressively weak-minded, victims of the hopeless epileptic dementia.

Epileptic dementia is that condition of mental weakness which results from epileptic seizures and especially when the disease is of long standing. It is not necessarily associated with any more active mental derangement, but may and often does begin soon after the epilepsy develops and progresses to mild or serious loss of mental power. This form of dementia while being in the main much like the terminal dementia of other insanities, presents in the appearance of the patient some distinguishing characteristics, though these, I confess, are not easy to convey in words. The bloated face and dull, sodden expression, associated with some hesitancy of speech and mild mental confusion usually suggests to the expert an epileptic origin.

In a very large proportion of chronic epileptics dementia in some degree is a concomitant. At first there is the slightest dulling of the mental faculties, such as faulty judgment, a difficulty in grasping what was formerly easy to understand, slight failure of memory for recent occurrences, some difficulty in fixing the attention. All these indicate a slight failure of the mental vigor and are the first steps in the long descent of mental deterioration that ends in hopeless obliteration of the mental faculties.

In the extreme degree of mental degradation that results from epilepsy there is but the slightest trace of mind left, the patients take on flesh, grow dull and listless and are sluggish in movement; they only comprehend the simplest ideas and even such with apparent effort. The destruction of the mind is as thorough as if the cortex had been cut away. There is

in some of these cases a tragic exhibition of the mild and timid manners of a child in their helplessness, with occasional explosions of furious and destructive violence. There are many cases of epilepsy in which these attacks of violence never occur, however. They are timid and hesitating in manner, slow of movement, speech and comprehension, good natured, easily pleased and childlike. It is one of the most forcible as it is one of the saddest exhibitions of the dissolution of the brain by disease.

The mania of epilepsy, from whatever form of fit, is of the most furious and violent kind. There is nothing in the round of mental disorders that equals in brutal and destructive fury the mania of epileptics. They are utterly abandoned to raving violence that nothing can check or turn aside for a moment. I had a man under my care some years ago whose father was an epileptic, whose sister had been insane, and who had himself been an epileptic from his fourteenth year. At the age of twenty-eight he had one of his usual fits and immediately became violent and was under my care during its continuance which was about three months. For six weeks he was continuously maniacal with the most terrifying hallucinations, screaming, crying for help, begging for mercy, attacking every one that came into his room, and could only be calmed by drugs for a short interval. This maniacal condition passed away rather suddenly and he afterwards recovered and returned home to his occupation. This particular attack seemed to produce no lasting bad effect upon his mental faculties and with the assistance of his wife he continued in the management of a business that brought him a fortune. The epileptic fits had, however, perceptibly weakened his mind previously. It is now thirteen years since the attack of mania and he has had no return of it though the fits continue. This illustrates the fact that is observed in many epileptics that there may be an out-break of maniacal violence but once in a life time and which may last from a few hours to several weeks and the patient may go on having the fits and

there not again in years or a long life be a recurrence of the insanity.

Epileptic insanity may precede a fit, take the place of a fit, or it may immediately follow it, and there are other cases in which the insanity occurs in the intervals of fits neither immediately following nor preceding one. The one most important feature of epileptic insanity is the tendency to violent and homicidal acts. The epileptic is specially liable to vicious and criminal conduct, being irritable, suspicious and impulsive, and hence of all lunatics he is the most dangerous. Among the mental perversions preceding a fit may be irritability, moroseness and a desire to wander about alone refusing usual companionship or occupation. Those who are associated with an epileptic are often able to predict a fit from this condition. The epileptic will fly into a passion about some trivial matter, perhaps become furious and strike or violently attack some member of the family. Other cases are despondent and some times suicidal for a short time before the attack. Others have head-ache, are dull and listless. There are others who for a short time before a fit are elated and exalted, loquacious and egotistic and coarse in manner and conversation. After the recurrence of the convulsion there is a return to the usual mental state. The fit, therefore, is in some cases the end of a condition of mind that is actual insanity or on the border of it, the explosion of the convulsion seeming to clear the mind and restore it to its normal condition. In some cases a violent attack of transient mania seems to take the place of a fit or it may be said to be the fit expended in the psychical sphere. The character of the insanity is not modified by its time relation to the fit, that is by the fact that it occurs before or after a fit or in the interval.

Maudsley, in his work on "Responsibility in Mental Disease," mentions an epileptic who seeing a companion asleep in a field seized a stone and crushed his head killing him instantly. He then fell down in a stupor in which he

was found by persons passing. Being found an epileptic he was sent to an asylum and while there almost succeeded in killing an attendant. Echeverria mentions a patient of a particularly gentle and affectionate disposition who arose in the morning after having a fit in the night, walked into his brother's room and after pacing the floor excitedly, seized a razor and cut his own throat quite seriously. On another occasion while at breakfast with his sister, upon her asking him if he would have some coffee, he rushed upon her and attempted to injure her. His brother, coming to the sister's assistance, found the patient leaning on the back of a chair with a knife in his hand unconscious in an attack of *petite mal*. Such illustrations might be multiplied indefinitely.

There is a condition called *epileptic automatism* which is not infrequently associated with the disorder and which is of great interest. Some observers hold that this automatism is only observed as a sequel to a fit, others that it may replace a fit. Further observation is necessary to settle this point. In cases where epileptic automatism is shown it certainly most usually develops after a fit. In some cases there is a manifestation of it after a fit in the way of doing simple but incongruous or silly things. For instance one patient always attempted to undress, and if allowed to do so would attempt to put his clothing on again, but was apt to mistake his coat for his pants or his shirt for his coat. Other patients run about kissing those they meet even strangers or even articles of furniture. Others steal and hide things or pick pockets with great cunning. There is no subsequent recollection of any of these acts. Echeverria mentions a boy who took a horse and buggy he found in the street, and after driving for some time left it at a stable saying it was his. There was no subsequent recollection of his having done this. He mentions another epileptic who enlisted as a sailor in New York, and suddenly recovered consciousness in mid ocean while the vessel was sailing for London. There are many instances where epileptics in this state have stolen and concealed articles, have committed homicide, arson, etc.

A satisfactory explanation of this condition is perhaps not possible. It has been said that in this state the patients are unconscious, and in a sense this is probably true. It is consciousness perverted and acting on a lower plane, a plane too, on which normal consciousness cannot act. Consciousness is a variable quantity, there being many degrees of it in the normal state, from those processes that lie upon the borderland of sleep to those that play clear and vigorous in our most active mental operations. Morbid conditions degrade the order of normal mental processes and they do this by involving first the higher processes, that is those that are more complex, more delicate, more unstable, more easily disintegrated by disease. The result of this degradation of the highest structures is that the lower orders of association become active and the mental processes that are shown, are the exhibition of the brain working upon an inferior level, producing a consciousness of an inferior order. The lower levels or orders of mental action are those of instinctive acts, in which self control is weakened or destroyed. These acts may be purposeless or silly or they may be in the line of animal gratification, or criminal, as pilfering or homicide. These instinctive tendencies exist potentially in every mind and when disease weakens the higher faculties that hold these tendencies in check then they act without restraint.

Concerning epileptic automatism it is important to remember that during its continuance there may be apparently sane and conscious acts of an intelligent and complex nature performed; there may be apparently intelligent conduct extending over several hours or days involving conversation, business transactions, traveling long distances, crimes committed, etc., and all this done when the patient is in an abnormal mental condition and of which he will on recovery have no recollection whatever.

The mental condition of epileptics during the intervals of the fits is by no means constant. Some are normal or nearly so between the fits, others showing various degrees of

derangement. Some authors hold that it is in only a minority of cases that there is any mental failure in chronic epilepsy. This is not in harmony with my own experience, and the best recent authorities deny its correctness. My personal observation is that epilepsy almost always produces some mental impairment and in the majority of epileptics the impairment is decided. It is surprising how quickly the mind suffers from epilepsy in some cases. One young man who developed epilepsy from long over work came to me within three months after having had his first fit, and yet he could see himself that his mental vigor was distinctly impaired. There are some chronic epileptics who attend to business successfully, and who to an untechnical observer would appear perfectly well and yet who have suffered considerable mental impairment. It is probable that you are all acquainted with such cases. The members of one's family are not always competent judges of the mental condition of an epileptic, as the mental deterioration is often so slow that their associates fail to note it.

There are other epileptics, who, while not showing actual insanity, show some departure from the normal state; they are irritable and morose in the intervals of the fits, showing lack of normal sympathy and affection for relatives, lack of interest and ambition in occupation. Others, in whom the disease has made more progress, are subject to fits of passion or attacks of violence, or of delusions of suspicion and persecution.

Some epileptics may be quite orderly in their conduct and yet entertain delusions of persecution, making them dangerous to others; they may, however, and often do conceal their delusions, because they are suspicious and fear to confide in any one.

Epileptics are not infrequently morbidly self-conscious, having exaggerated ideas of their own importance and feeling themselves unappreciated and neglected. The epileptic, in this condition, is usually selfish and self-centered in all his plans; his interest is wholly in himself and his imaginary

troubles. Being irritable and suspicious, he is on the lookout for slights and neglects; he misinterprets remarks and acts of others into intentional insults and builds extravagant delusions of personal wrong and insult upon the most innocent and trivial acts of others. They will lie in regard to their treatment by others, make false accusations of ill treatment and exhibit self-inflicted bruises as evidence of the truth of their statements. Women will accuse husbands of immoral conduct and tell the most circumstantial and plausible stories of outrages attempted upon them. The lower grade of epileptics will show these characteristics with less artifice and less success at deceiving. The moral perversion of some of them is extreme, especially in regard to the sexual propensities, soliciting improper attention from men or other women in the most open and shameless manner.

In *mental or cerebral* epilepsy there is as the only outward indication of the fit, often a sense of vertigo and faintness with facial pallor; in others there is no vertigo, but pallor and twitching of facial muscles; in others temporary confusion and a momentary pause in work or conversation. The mental processes are temporarily arrested, the patient, if busy, stops for a moment and then takes up the conversation or work. In some cases there is a vacant stare for a moment with a lapse of consciousness.

A French jurist was subject to these attacks and would leave his seat in court, walk out of the court room, wander about for a few moments and return and continue his duties. Following these attacks there may be and often are periods of confusion or insanity lasting from a few minutes to days and during their continuance patients may wander away from home, steal and hide various articles, or under the influence of hallucinations commit homicide or arson. Some epileptics during this stage desire to kill some one or set fire to buildings. A patient of mine said one of his first morbid fancies was that he must burn the church building in which he officiated as pastor and he actually tried to do it twice but

failed. In the only attack I saw him have he became violent and remained so for half an hour. Naturally he was a gentle and mild mannered man.

Following these attacks there may be perfect lucidity and continuance of usual occupation or there may be confusion or mental derangement. The patient may wander away from home, commit thefts or other crimes such as I have already detailed. A man was under my care some time ago who had been from boyhood subject to cerebral epilepsy. He was considered harmless and lived at home. One day he suddenly became furious and killed both his parents with an ax. He refused to give any explanation of the crime, but there is no doubt that he did the act in an attack of epileptic fury. These seizures that last only a moment and may pass unnoticed for a long time may be followed by attacks of the most furious violence. Lewis mentions a man who, during the night, thought he saw two burglars attacking his wife and he ran for a hatchet. He remembered nothing after that but was subsequently found wandering in the street with a bloody hatchet in his hands with which he had killed his wife. It was believed he had a hallucination during an epileptic seizure and had killed his wife thinking he was attacking a burglar. These attacks are sometimes associated with unpleasant or even terrifying hallucinations that drive the victim to fury and violence. The patient sees some one striking at him with a knife, he hears some horrible accusation from an enemy and becoming desperate he rushes upon and attacks the first person he meets. In this state a man ran through the streets in New York some years ago stabbing every one he met, seriously injuring several persons. This form of epilepsy may precede the usual *Grand Mal* form or it may replace it or occur in the intervals of other fits. Some have *Grand Mal* at rare intervals and cerebral epilepsy more frequently. This latter form of epilepsy causes more rapid failure of the mental powers than any other kind of fit. Fitful brilliancy of mental powers has been associated with this

form of epilepsy. Swedenborg and Mahomet who were both subject to this and the usual form of the attack are instances. The extravagance and visionary character of their belief is in harmony with the self-centered consciousness of the epileptic whereby he magnifies his personality and exaggerates all impressions, being especially subject to hallucinations of the senses.

Nocturnal Epilepsy may be either the grand mal or mental epilepsy. It is thus named, of course, from its occurring at night and it may exist for a long time unsuspected by patient or friends. Some years ago I was called to see a little boy of nine years who had for some time and on many occasions attacked his younger brother while they lay in bed at night. Repeated punishing having done no good and the boy showing some mental peculiarities, they requested me to examine him. I learned he sometimes complained of headache on the day following the scenes with his brother and was dull and indisposed to play and also alleged he had no recollection of hitting his brother. His mother stated that he passed his urine in bed quite frequently. Suspecting epilepsy, I had him watched and my suspicions were confirmed. Some months later he had attacks during the day of cerebral epilepsy and was invariably violent afterwards. He became an epileptic imbecile, his mental development being arrested by the fits, and is now, at nineteen years of age, in an asylum. His younger brother afterwards had epilepsy, though I do not know the form of the disease in his case.

The *Nocturnal Epileptic* fit may occur without waking the patient from sleep. Sometimes there is the initial cry and convulsions, at other times these are not observed and in some cases they are never observed. The patient, however, is almost certain to have morning headache, feeling dull and probably irritable. The face will be flushed or bloated with minute petechiæ on face and neck, and sometimes with sore tongue, the result of its having been bitten during the fit. The urine is not infrequently passed in bed at the time of the

fit. Stains of blood and saliva are also occasionally found and are important confirmatory evidence of a fit. *Nocturnal Epilepsy* is very injurious to the mental faculties, and especially in children it produces early arrest of mental development. All forms of epilepsy are much more injurious to children than adults. The delicate and imperfectly organized cerebral structure is rapidly impaired in function and arrested in growth by the violent and repeated shocks of the fit. Epileptic somnambulism occasionally follows the nocturnal seizure and in fact all the phenomena observed to follow the diurnal fit may be observed in these. Patients attack others sleeping with them or in an adjoining room, or get up and walk some distance performing apparently intelligent and conscious acts and return to bed without regaining normal consciousness. Trousseau suggested that all nocturnal accidents should suggest epilepsy. Morel, Echeverria and others have published many cases in which nocturnal epilepsy had led to crime.

There are some characteristics of the epileptic insane that I have thought would be more easily remembered if considered separately from the general description.

An important characteristic of the epileptic is his impulsiveness. There is more danger from the impulsiveness of the epileptic than from his intellectual derangement. Of all classes of the insane, they are the most impulsive. The fits weakening their control and leaving their nerve centers hyperæsthetic and irritable, they react quickly and without thought to all impressions. Their mental reflexes are exaggerated and their self-control weakened. They are then controlled by feeling and passion and their acts are sudden and instantaneous. Combine with this their characteristic suspiciousness and you have about as dangerous a person as can be imagined. This mental irritability is especially marked at about the time of a fit and the utmost tact is necessary in their management. This characteristic of epilepsy was impressed upon me in my early experience in an insane hospital when one day I placed my hand on an epileptic's shoulder, intending to speak to him;

he turned and struck me, however, in the face before I could speak. Instantly he regretted his act, saying he struck without thinking or even knowing there was any one to strike. At such a time, an abrupt remark or a touch or some one entering the room suddenly will cause an attack of violence. A case has been reported in which an epileptic shoe-maker attacked with a shoe knife and seriously injured his little daughter who suddenly entered the room where he was. He had no recollection of the attack. Epileptics having ideas of suspicion in the intervals of the fits are apt to have them exaggerated at or about the time of seizures and this, together with their irritability and impulsiveness, render them dangerous at such times.

The memory of epileptics is often impaired or confused. Very many have no recollection of a fit and though mental derangement may succeed a fit and last for hours and days during which the patient may do complex and apparently intelligent acts, yet there may be no subsequent recollection of it. This unconsciousness associated with epilepsy is important to have in mind because of its medico-legal relations. Again the memory of an epileptic of a criminal or other act may vary. In some cases there is for a short time a partial or confused memory of the occurrences of the abnormal state and then in a few hours this may be replaced by complete oblivion of the occurrence. The statement, therefore by an epileptic that he had no recollection of an occurrence and at another time that he had a confused recollection may both be true. This of course rarely occurs but there are said to be undisputed instances of it.

Much has been written in regard to the religious character of epilepsy and it is indeed a strange phenomenon. Many epileptics are obtrusively religious, saying their prayers where they are observed, declaring their moral superiority to others, carrying their bible in their hands and reading it where they are noticed; and these patients are apt to be the most trying cases of epilepsy, egotistic in the extreme, wholly absorbed

in self, deceitful, treacherous and quarrelsome, addicted to grossness in conduct and language. Dr. Gowers has published a case in which an epileptic girl had visions of being in heaven and seeing and talking with persons there. Such experiences remind us of those of Swedenborg and Mahomet both of whom were epileptics.

The medico-legal relations of epileptic insanity are important. How far should the existence of epilepsy render a person irresponsible? While some general principles may be laid down for the guidance of the physician, no rules applicable to all cases can be established. Each must be carefully studied and judged by its special indications. There are some epileptics in whom the mind is unimpaired and these of course could not be considered irresponsible except during a fit. There are others in whom there is a slight shade of mental failure, some blunting of the normal acuteness but with no delusions. Others again are, at or about the time of a fit, irritable, suspicious, and perhaps despondent and morose, showing noticable mental weakening yet in the intervals of the fits pass for normal persons. Others again have delusions and yet others have paroxysms of violence. Epileptics who commit crimes are usually chronic cases. While there are exceptions to this rule they are rare. We would expect this to be so, for the longer the epilepsy has existed, the greater the mental degeneration. Crimes are some times committed at the time of a fit but more often in the intervals of fits. The Roman law exempted all epileptics from responsibility for three days before and three days after a fit. All criminal acts committed by epileptics should lead to a careful investigation of their mental condition at the time of the act. Some people have fits infrequently and are apparently normal in the intervals. A crime committed during such interval would not necessarily be due to the epileptic condition. The nearer, therefore, the act is to an epileptic fit, the greater the chances that it was the result of the fit. The nature and manner of the

crime may help to determine the condition. A crime, if apparently motiveless, reckless and furious, is probably due to epileptic insanity if committed by an epileptic.

As we have seen in the case of the man who killed his wife, a crime may be committed under the influence of a hallucination. Some years ago, in New York city, a man by the name of McDonald choked to death his brother with whom he was sleeping. He would give no explanation of the crime. Some weeks afterwards while in prison he attempted to choke another person who slept in the same cell. The superintendent of the City Insane Asylum being asked to examine him recognized in him an old epileptic patient whom he had discharged from the asylum some months before.

Epilepsy is relatively common among criminal classes and also among those who drink. Crimes, when committed by them not otherwise explainable should be examined for evidences of epilepsy.

The important features of epileptic insanity may be summarised as follows:

1. The forms or varieties of epilepsy liable to lead to insanity are the ordinary, Grand Mal, Mental Epilepsy, Nocturnal Epilepsy.
2. Nocturnal epilepsy and mental or cerebral epilepsy produce more rapid mental deterioration than other varieties.
3. Epileptic insanity may precede, take the place of, or follow a fit.
4. It may be a quiet type of insanity or the most violent mania.
5. The mania may occur only once in the course of the life of an epileptic who has the disease from childhood.
6. Epileptic insanity is a most dangerous form of mental disorder as the subject of it is suspicious, irritable, and impulsive being conspicuously weakened in self-control.
7. There is usually loss of memory of events of the insane period though occasionally there may be a confused recollection.

8. That a condition of mental automatism may follow an epileptic fit which may last for days during which a person may transact business, buy a ticket and travel distances, converse intelligently, and yet afterwards have absolutely no recollection of anything that occurred during the period.

9. The epileptic attacks may occur during sleep and not during the waking state, and that this nocturnal epilepsy is apt to be associated with violence and ultimate mental weakness.

10. That insanity is more apt to be associated with the mild fits called cerebral or mental epilepsy than those in which the convulsions are violent. It must not, therefore, be thought that the condition is a trifling one and the danger of mental disorder slight because the fits are apparently mild and of short duration.

MILWAUKEE SANITARIUM

FOR

Nervous and Mental Disease.



THE SANITARIUM is beautifully located in the country, three miles from the City of Milwaukee. It is within a few minutes' walk of the Chicago, Milwaukee & St. Paul Depot, but is in a quiet and retired spot, where patients have the freedom of a large park without observation or intrusion.

The institution is designed for the treatment of nervous disorders, including mild cases of insanity.

The buildings are new and were constructed for the special purpose of a Sanitarium. They are heated by steam and lighted by electricity, and the entire sanitary arrangements of the institution are the best.

Each patient is provided with a separate room, and skilled nurses are always in attendance.

The Sanitarium is organized on the home plan. The officers live with the patients, sharing their meals and their social life. In this way it is divested of the characteristics of an institution and assimilates to that of the home.

For information, address the Medical Superintendent,

J. H. McBRIDE, M. D.,

WAUWATOSA, Milwaukee Co., Wis.