required. As an outsider in this matter, and merely looking upon this particular question, as one aspect of the general subject of pauper infirmaries, I leave these suggestions in the hands of those who have the ability and knowledge, and it may be hoped the intention also, to bring these important questions to a speedy solution.

Epileptics: their Mental Condition. A Lecture,* by W. A. F. Browne, Commissioner in Lunacy for Scotland, President-elect of the Medico-Psychological Association, &c.

"On en est même venu aujourd'hui admettre que tous les épileptiques, sans exception, presentent, à certain degré, des perturbations de l'intelligence ou du caractère, et qu'ancun d'eux ne peut être considéré comme absolument sain d'esprit. [p. 661.] * * Cependant tous les auteurs sont d'accord pour reconnaître que la plupart des épileptiques présentent, à divers degrés, des troubles de l'intelligence et du caractère dans le cours habituel de leur existence, en dehors de leurs attaques convulsives." —"*De l'Etat Mental des Epileptiques," par le Dr. Jules Falret;* 'Archives Générales de Médecine,' t. ii, 1860, p. 668.

One reason that has prompted me to address you upon the subject of the mental condition of epileptics is that for two consecutive years I offered, with the cordial concurrence of Professor Laycock, a prize to his class for an essay on "Psychical Aspects of Disease," for which no competitor appeared. The signal failure of the proposal confirmed me in my opinion that the profession disregarded such an element in observation and diagnosis, that the subject was foreign to such studies as are at present encouraged, and that new efforts were required to direct attention to states of the system having a powerful but unestimated influence upon disease, themselves directly or indirectly signs of diseased conditions, affecting most intimately and gravely the comfort, the happiness, and the sympathies, as well as the ultimate fate, of the patient, and without a knowledge of which no physician could fully comprehend either his powers or his duties, or perform the *whole* of his glorious mission.

You must not misinterpret the phraseology employed. The psychical aspect of disease is not intended to convey the moral exaltation or depression, the natural hopes and fears, the fancies and foibles and irritabilities, not even the religious anxiety or confidence attendant upon unhealth and infirmity, although I do conceive these

* Read before Professor Laycock's class of Medical Pyschology, at their visit to the Inverness District Asylum, July, 1865.

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to be legitimately within the sphere of our observation and ministration; but it refers to morbid mental changes concomitant with, and in some, perhaps in all, cases characteristic of, the changes going on in our organization, and, in proportion as they may be regulated or directed, controlling or accelerating that degeneration which terminates in death or incapacity. It is well known that there is an inextinguishable hope and trust in life, an ever-dawning and noonday confidence in phthisis; that there is a panic, a fear of evil and death darkening and disturbing the life, penetrating even into the dreams, of the sufferer from cardiac disease; that scirrhus is both ushered in, and accompanied by, care, anxiety, and grief. Dr. Todd, with that originality which marked much that he did, sketched a classification of delirium, creating ten species, including the renal, hysterical, anæmic, traumatic, rheumatic, toxic, &c. His system was founded rather upon the cause than upon the phenomena of the mental disturbance; but although never developed further than in clinical teaching, involved the principle here contended for. But this knowledge has neither been extended nor utilised. This accusation is launched chiefly against ourselves. The literature of France is rich, and daily becoming richer, in this department, and especially in the matter of our present inquiry; on this subject it abounds in monographs and philosophical disquisitions; while Beck, Paris and Fonblanque, Ray, Cooke, Radcliffe, Sieveking, and Guy (the text-book in your own university) contain little more than a brief allusion; and Dr. Russell Reynolds directs his remarks to a limited but most important aspect of the inquiry, electing failure or integrity of apprehension and memory as the test of the mental condition. In harmony with this view, I have selected for illustration the psychical aspects of a disease generally treated as nervo-muscular, but including affections of the mind involving the reputation, liberty, and life of the individual.

I am bound to conclude, from your position in the university, that you are somewhat familiar with the symptoms of an epileptic attack, and, from your being pupils of my distinguished friend Dr. Laycock, that you have heard of the mania which so frequently follows. Notwithstanding these advantages, it is possible that you have never witnessed the series of symptoms designated by the word. Individuals have succeeded in concealing that they were subject to such an appalling affection; members of the same family may never witness the rare and brief, and often nocturnal, indications of the malady which they know to exist. Physicians are called in to treat the latter stages and effects only in an asylum, the only place where the disease can be studied; accident rather than arrangement brings the attacks under notice; and, as a pertinent illustration, I understand from the medical officer here that there is a patient in this house labouring under a modification of the disease, but that, not-

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withstanding all the vigilance and solicitude bestowed, he has never succeeded in observing its recurrence.

So far as our present purpose is concerned, we shall represent epilepsy as consisting of mental disturbance, generally consisting of obscured consciousness, sometimes of long duration; of a premonitory sensation or aura, in the great majority of cases being an anormal condition of the cœnæsthesis, independent of external stimuli; a pallor of the face; a cry; entire loss of consciousness; contraction of the muscles; the thumb is placed in the palm of the hand, the fingers are fixed, and the arm, say the right, describes a rotatory movement so forcible as sometimes to produce luxation. The sterno-cleido mastoid is convulsed; the head is turned to the opposite side; the muscles of the face are twisted towards the side chiefly affected; the eyes and lips are distorted, and the aspect becomes hideous. Respiration is suspended; the pulse slightly quickened; the chest fixed. Suddenly the face becomes red, purple; the veins of the forehead swell, and there is often an involuntary discharge of urine, spermatic fluid, and fæces. Sometimes the teeth are firmly set, sometimes the mouth remains half open; the tongue, being protruded, is wounded; the lips are covered with a frothy and often bloody saliva, which is projected by the returning respiration. The tonic spasm lasts from ten to sixty seconds, and is followed by the alternate relaxation and contraction of the muscles, during which the same features are observed. This stage may be from one to two minutes in duration, then follows complete relaxation; a deep sigh; the head falls powerlessly to a side; stertor; coma, and partial or entire unconsciousness, even after the coma has ceased. From the stupor the patient is suddenly or gradually roused to a state of madness, stupidity, or temporary dementia, or what is termed his lucid state; in all these conditions there being an impairment of consciousness, judgment, volition and memory, the powers by which we recognise and recall impressions, whether objective or subjective, and by which we regulate our thoughts, opinions, or acts, in relation to these impressions, or our interpretation of them. The duration, the intensity, and the number of these indications, vary infinitely; but, except in so far as such differences may affect the state of the mind, we shall not regard it as a duty to enter into them, nor into the physiology nor pathology of these indications. I shall assume that you are conversant with the theories of Schroeder van der Kolk, of exalted action of the spinal cord; of Radcliffe, of interrupted vital or electric force, and so forth; and shall endeavour to confine your attention to this single but most comprehensive proposition, "Is every epileptic of unsound mind?"

Esquirol has given the following statistics to illustrate the comparative frequency of the association of epilepsy with the different forms of mental disease, whether present as a cause, a symptom, a consequence, or simply as a complication, for it may stand in any of

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these relations. Of 339 females in Charenton, 12 were monomaniacs, 30 maniacs, 34 furious, 145 demented, 8 idiots, 50 habitually reasonable, but afflicted with frequent loss of memory, and 60 exhibited no aberration of intelligence; one fifth preserved their reason; but, he significantly says, "what reason?" *

Our inquiry is not whether epilepsy generally leads to mental disease, but whether it be a symptom of that cerebral condition of which mental disease is likewise a symptom or expression; whether it ever occurs without interruption to the mental functions at the time, and without permanent injury. That injury may be great or small, removable or irreparable, known to the sufferer only or obtruded upon those around prominently and offensively; but does it invariably involve such a modification of the mental constitution of the individual as to affect his dealing, and his capacity to deal, with the ordinary concerns of life?

It has been held that the epileptic is not insane in the legal sense. He may display talent, acuteness, even the attributes of genius. His disease may be of short or long continuance, and it is most difficult to determine how long it may continue, even when there is no convulsive attack; but it is argued that the mind is weakened, perverted; the judgment, the sense of right and wrong, and consequently the responsibility, directly or indirectly weakened and perverted; it may not be to such a degree as to exonerate the individual from all culpability or all penal consequences, but assuredly to such an extent as to demand consideration and allowance in every transaction, and in every judgment as to motives, convictions, and conduct. "All authors are agreed"—I quote the words of Baillarger—"in admitting the fact that epilepsy, before leading to complete insanity, produces very important modifications in the intellectual and moral condition of certain patients; these sufferers become susceptible, very irritable, and the slightest motives often induce them to commit acts of violence; all their passions acquire extreme energy." † The point to be now considered is whether there are any and what grounds for holding that this irritability, these acts of violence, should be referred to disease.

If the brief sketch of a single epileptic attack has been followed, it will have been observed that there are a number of morbid psychical phenomena which claim examination. There is, following the incubation, in order of succession and time—

I. An exalted susceptibility to external impressions.

II. An aura, affecting some of the external senses, which is no necessarily connected with these impressions.

III. Coma.

* 'Maladies Mentales,' t. i, p. 274.

† 'Ann. Médico-psych.,' Avril, 1861.

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IV. Excitement, or fury, or the performance of automatic acts.
V. An abnegation of consciousness during all these conditions.
VI. Change in disposition, partial enfeeblement of powers, of which the patient alone may be aware.
VII. Dementia.

Dr. Russell Reynolds, confining his statistics to such patients as are sent to asylums, found that the memory was normal, or affected only after the fits, in 43·85 per cent., and more or less defective in 56·14 per cent. Apprehension was normal in 62·5 per cent., defective in 37·5 per cent.* In this calculation, however, Dr. Russell Reynolds has recorded merely the *results*, the signs of dementia, in long-established epilepsy, and has not included the pathognomic feature, *loss of consciousness*, except in so far as memory is concerned, which he recognised in his diagnosis.† These conditions differ widely in degree and duration, and especially the mania or maximum departure from health, and are not necessarily met with in every case. But in whatever manner combined, and however brief the characteristic element is—imperfect or suspended consciousness—in other words, a cessation of that thought and emotion which regulate our rational acts, of which the mind itself takes cognisance, which are preserved by memory, constitute part of the continuous course of our mental existence, and form the internal measurement of time. There is a portion of each epileptic's moral life during which he has not lived, of which he has no record nor experience, such as other men have; not even of transactions, and these of grave importance, in which he has shared or seemed to share. It is expedient to keep very distinctly in view this psychical characteristic of every form and stage of epileptic insanity. It matters not what the previous strength of capacity or range of acquisitions may have been, nor whether the patient be struck by terror or lashed into fury; nor whether these aberrations last for a moment, an hour, weeks, months: there is ever present a suspension of mentalization or of the consciousness of mentalization, and of the powers to recall the events, either personal or relative—in other words, the impressions imparted by events—while the mind is in that state. There is a gap in our moral nature; there is a hiatus in time; the patient has lost what others have received; and in order to regain his equality with his fellow-men he is necessitated to join together, to connect, the period when he ceased to receive and that when he began again to receive intimations of consciousness. In the transitory stupor of the *petit mal* no conscious thought is present, no emotion arises; even

* 'Epilepsy: its Symptoms, Treatment, &c.,' p. 44.
† Dr. Russell Reynolds's definition is "a chronic disease, characterised by the occasional and temporary loss of consciousness, with or without evident muscular contractions."—'Epilepsy, its Symptoms, Treatment,' &c., p. 32.

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pain ceases; and the individual ceases to be, morally. During the premonitory stage of confusion and perplexity, when the patient wanders abroad without purpose, commits eccentricities; during the convulsion and the mania, in which the epileptic wakens up; there is either an abolition of consciousness or an abolition of the impressions received into consciousness; and when the evil is consummated and dementia is established, the mind has ceased to be. It is here worthy of record that an epileptic reputed to be sane will express great dubiety as to the clearness of his perceptions, even previous to the premonitory sensations. These observations, though applicable, are not applied to the coma, inasmuch as coma is common to other diseases; but to that abolition or imperfection of consciousness which is detectable in the *petit mal*, as well as to the abortive fit, the initiatory and concluding stages of the true fit, and the fatuity which succeeds. This is a consideration of moment, for during even the brief duration of this condition, and when the mind neither originates nor receives consciously, grave acts may be performed, compromising the position and character of the individual. I have known this state consist in the utterance of obscene words by those naturally "pure of heart." I have seen a victim rise, panic-stricken, from sleep, and flee from imaginary foes to imaginary friends. I have heard described strife and struggles and extravagant gestures, which might have as readily dealt death or injury to those around as been expended on the unresisting air. There are facts which show that suicide has been committed under the impulse of such seizures, as well as during the state between sleeping and waking. In all other forms of alienation, or nervous diseases, there is, less or more, a knowledge by the actor of what he is saying or doing, and a recollection of what has been said or done in relation, it should be understood, to his real or his imaginary position. In epileptic derangement it may, on the other hand, be sharply and succinctly affirmed that there is no such knowledge; that this oblivion is pathognomonic; and where there is, occasionally, a departure from this law the supposed remembrance will be resolvable into a delusion or a dream. Dr. Sieveking states, "A gentleman under my care informs me that he at times remembers having dreamt during the fit, showing that the complete abeyance of the mental faculties does not always exist."

The aura is of various kinds; it may consist of violent gusts of passion, lust, voracity; of pain passing from the periphery to the centre, in the epigastrium, or a limited spot on the surface; in flashes or circles of light, red colours; delicious or disgusting odours; sweet or salt sapors. The aura, or what may be an aura, may exist alone, and, although of a genuine epileptical origin, may not be followed by a fit. But are not such sensations intimately allied, if not identical, with hallu-

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cinations? They are real impressions erroneously interpreted, and in this relation it should be kept in view that in the same individual, at more advanced stages of the disorder, the pain is attributed to the assaults of unseen enemies, the flashes of light are intensified into the flames of a conflagration, or of martyrdom; the red colours into seas of blood, and the tinnitus aurium into articulate warnings. Whatever the emotion which has been the cause of the disease, or whatever has been the predominating thought or sensation, or misinterpreted sensation, coincident with the commencement of the malady, is reproduced in all succeeding attacks. In those reputed to be sane the *petit mal* has followed what prove to others pleasurable or indifferent impressions. Orfila narrates the case of Vincent, the painter, who invariably became affected when the perfume of roses reached him. Voltaire tells of an officer who was convulsively moved by that of pinks. Boyle lost consciousness on hearing the splashing of water. The aura remains then the same; and where that has acquired the relation of an objective form or object, the same apparition or guardian angel rises in consciousness as the mind attains its highest, or a particular, degree of perturbation. This is perhaps nothing more than, or different from, the invariable association of certain forms and stages of ordinary insanity. I have often observed in a series of epileptiform convulsions, whether in true epilepsy or general paralysis, that at the moment of most perfect and healthy lucidity—as if the stimulus of the intellectual act served as an exciting cause—a new invasion supervened. Every powerful and distinct emotion produces the same effect, and every internal or external impression may be pregnant with fear or a loss of mental equipoise. Should this be a correct exposition, and there is no reason to doubt it, the frequency with which a sensitive organization must be exposed, not merely in the processes of its own constitution, but in contact with the world, to sources of disquietude, cannot be questioned. One author asserts —"Fear determines two thirds or even three fourths of epileptic cases."* Other observers give the following proportions:—Leuret has recorded a timid disposition as a predisposing cause in 16 out of 75 cases. We find 30 cases in 86 attributed to fear by Maisonneuve; 27 in 70 by Bouchet and Casauvielh; 45 in 100 by Beau,† &c.

The *petit mal* may deserve the designation of a mental aura, and it may be observed that the vast majority of such warnings are subjective. This state is nothing more than a brief arrestment of thought. An organist stops while playing, for seconds or minutes, and resumes without omitting a note, and exactly where he ceased, with no consciousness of the interruption, nor recollection of the

* Bost, p. 79. † Delasiauve, p. 213.

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loss of time. A card-player pauses at the moment he is about to throw a card, gazes steadily on vacancy, and then plays the right card. An architect, while traversing a plank in the scaffolding of a building, runs quickly across, pronounces his own name repeatedly, and knows, from the anxious looks of the workmen, that he has had an attack. In speaking or reading, a sentence or word is abruptly broken off, and, while all are wondering at the hiatus, the lips articulate the word or syllable necessary to complete the meaning of the speaker. Words or parts of words are omitted in writing, or the ideas of a copiest may be substituted for what is before him. This error would point to a continuance of subjective thought during the suspension of consciousness of external relations. I have known twenty or thirty successive attacks of suspended consciousness occur in one day, and these are not necessarily brief nor transitory. Epileptics gaze on vacuity for hours.

The greatest injury to the intellect is not inflicted by the most frightful and frequent convulsions, nor when the mature and muscular man struggles like a chain-bound Hercules. Absence of mind, momentary obliviousness, vertiginous feelings, a pause, a stoppage, an intermission in consciousness, such as has been described as the *petit mal*, as surely and swiftly produce enfeeblement. This was the conviction of Esquirol. It has been corroborated by many of equal discrimination.

"V—, æt. 22, was arrested in Paris, at eleven at night, for having wounded with a knife, without appreciable motive and without provocation, a girl of the town, whom he had met on the street. When examined next day he deposed as follows:—He had a very indistinct recollection of what happened both before and after the crime; of the moment of its commission he had no knowledge nor recollection. He recalled only one thing, and that was that the knife in some fashion acted of itself. In his flight after the act he had no idea of what he had done, nor until he had gone a considerable distance did he begin to have an indistinct notion of what had happened. The history of the youth was as follows:

"He did not belong to a family in which epilepsy or insanity had appeared. He suffered from typhus fever three or four years previously. He had not been subject to headache. He was often subject to giddiness or stupor, when he was obliged to seize upon some object to prevent himself from falling. It was as if a cloud passed before his eyes. This occurred, upon one occasion, while he was speaking, and stopped him. These attacks returned two or three times a day. He sees blue or red balls floating before him. He is subject to tremblings, which may continue for about a quarter of an hour. He has had a sudden feeling of distress at the throat. He declared that his memory was bad; there are moments when it passes away altogether. His employer often sent him with messages

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which he forgot by the way. Sometimes he forgets even his ordinary work. When he reads he loses all conception of what he reads; although fond of this amusement, he has for several months been unable to read. He cannot tell whether he is subject to transitory incoherence. He pretends to be a somnambulist during the night; while working, gloomy ideas are suggested, and he has thoughts of suicide, and for a year and a half he has often been tempted to throw himself from the bridges. This tendency arises suddenly—he cannot say how, or why. His father died in February last. Four days previously he had attempted to poison himself with a narcotic. He remained for three days locked into his room. He was not habitually passionate, and had never broken anything. It often happened that he left his work abruptly; wandered, without object, about Paris, or its environs, but never lost his way. Upon one of these occasions he made a journey to Amiens, neither entering a house nor eating anything for two days. Upon the day of the assault he had wandered in the country fasting. At the close of the inquiry V— was sent to Bicétre, as an epileptic lunatic. He was found irresponsible for a motiveless and unpremeditated act committed in a state of delirium connected with vertiginous, but not with formed, epileptic attacks."*

It is quite obvious how important the bearing of this truth, for as such we must accept it, is in considering these gradual, insidious, imperceptible moral changes which we believe to follow in the train of epilepsy. And should such brief suspension occur in individuals of solitary habits, in those whose pursuits or position deprive them of associates and of anxious observers of their deportment, the ultimate effects only will be detected, and detected under circumstances which render alleviation impossible. The memory of the sufferer affords no light. But to continue this investigation—should such suspensions, the hidden seizures of Marshall Hall, as is often the case, disturb sleep or form part of a dream—for even true epilepsy occurs during sleep—it would be vain to adduce them as explanatory of subsequent conduct, as they would be denied and repudiated even by the patient. Often there is nothing but disordered bed-furniture, or a trace of blood or saliva upon the pillow, to mark such an event. M. Trousseau was consulted by a newly married couple. The lady stated that, a short time after their union, she had been suddenly awakened during the night by the strange movements of her husband. Suddenly she was attacked, and, had she not been succoured by a servant, she would have been severely injured. This assault was repeated a few days before the physician was applied to; and, upon the latter occasion, the wife awakened in time, and, having lighted a candle, witnessed her husband's con-

* Falret, obs. x, p. 478, t. xvii, 'Archiv. Gén. de Méd.'

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vulsions and escaped from the fury which immediately followed. The patient was perfectly conscious of something having happened to him, of which he could give no account; and he admitted that frequently, previous to marriage, he had been subject to vertiginous feelings, which had been misunderstood by his physicians.* In certain cases fits only take place during the night, are successfully concealed from the public, even from intimate relations, and the clear and coherent citizen during the day may be a wreck and ruin, a half-witted convulsionaire, during the night. It is said that the solicitude of those around has kept even the sufferer in happy ignorance of his actual misfortune and impending doom. So keenly alive was Lelut to the secrets which night and seclusion and solitude might reveal, that "Il voudrait que dans les prisons preventives et les maisons d'arrêt on signalat toujours au médecin et au directeur, les moindres anomalies mentales des inculpés, afin q'eclairés par cette enquête les defenseurs et l'administration puissant empecher qu'on opprimat le droit par le abus."†

In confirmed and long-recognised epilepsy, where the attacks recur with a regular periodicity, where their invasion is announced by the ordinary prodromes, where the patient is under constant observation, it has been repeatedly noticed that no convulsion takes place at the expected time; but that it is replaced, or represented, by what appears to be a substitutionary or vicarious disturbance of the nervous system. These analogues may be moral or physical. They may be ushered in by an aura, by the peculiar cry, but consist in the instantaneous development and subsidence of fury, in panic, in hysteric gesticulations, in weeping, in gaps in memory, or in nothing more than mere restlessness, irritability, and pervigilium. But during these vacuities marriage and the most important events have been participated in and utterly forgotten. When epilepsy, or its most obvious and appalling symptoms, have been removed, these conditions, or some of them, remain; or when, with or without the aid or interference of art, the fits have become rare, separated, perhaps, by months or years, these, or even slighter changes, give testimony of the continuance of the disease, and mark very distinctly the seasons at which a violent explosion would previously have shaken and ruined health.

"A peasant, born at Krumbach, in Swabia, of parents of infirm health, æt. 27, unmarried, had been subject to frequent attacks of epilepsy since he was eight years old. For two years the disease, without any known cause, changed its character. In place of convulsions, this man found himself seized with an irresistible tendency to murder. He felt the approach of this paroxysm for many hours, sometimes a day, before the invasion. From the moment of this

* Legrand de Saulle, 'La Folie devant les Tribunaux,' p. 391.
† Delasiauve, 'Traité de l'Epilepsie,' p. 488.

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presentiment he earnestly demanded to be tied or chained, in order to be prevented from the commission of a crime. 'When I am attacked, I am impelled to kill, strangle, were it only an infant.' His father and mother, whom he loved tenderly, would be the first victims of his impulse. 'Save yourself, mother, he shrieks, 'save yourself, or I shall choke you.' Before an attack he complains of being overcome with sleep, cast down, and experiences slight convulsive movements in the legs. During the attack he preserves a clear notion of his personality, knows that in committing a murder he is guilty of a crime. When bound, he makes frightful grimaces, sings, repeats verses. The paroxysm continues for a day or two; when over, he asks to be released, and expresses thankfulness that he has destroyed no one."*

Dr. Schupman relates the case of an epileptic whose paroxysm was marked by a remarkable intensity. "He was attacked with cholera, which weakened him very much, but which terminated in recovery. Scarcely convalescent, he became agitated, restless, conceived that he felt some living thing moving in his stomach, and, penetrated by this idea, at length declared that he was pregnant. The slightest contradiction led to such violence that it was necessary to fix him to a chair. Many expedients were resorted to in order to eradicate this absurdity; they even imitated an accouchement, and then observed great excitement of the organs of generation. All was in vain. He retained his delusion. Pervigilium and great restlessness succeeded, but quiet and rest were ultimately obtained by means of large doses of Opium, Camphor, and Nit. Pot.; but the fixed idea remained. It only disappeared on the return of the attacks of epilepsy, which, during the alleviation, had ceased, their absence being the cause of the delirium.†

The doctrine of masked epilepsy has been taught, or known, in this country for a quarter of a century, but has not been so clearly formulised as in Morel's article upon 'l'Epilepsie Larvée.' It must not be confounded with the series of morbid phenomena described above, where the convulsion is succeeded and supplanted by mania, neuralgia, agitation, &c. In the affection described by Morel epilepsy is present, undeveloped, unmanifested, but yet produces in the patients the same mental and moral disturbance as when it is marked by vertigo and convulsions. The symptoms of this epileptic insanity without epilepsy, or where the epilepsy is only observed among the advanced or ultimate features of the malady, are enumerated as follows:—Periodical excitement, followed by prostration and stupor; excessive and motiveless irascibility;

* Esquirol, 'Mém. sur le Monomanie homicide,' p. 831. Fact quoted from Gall.

† 'Journal de Psychiatrie,' ii, cahier 47; 'Ann. Médico-Psych.,' 2nd series, t. i, p. 301.

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the perpetration of aggressive acts, having the character of sudden and irresistible impulses; exaltation of sensibility; alternations of delirium and cerebral excitement; exaggerated ideas of strength, riches, beauty, intelligence; fear-inspiring hallucinations; association of erotic tendencies with religious sentiments; sensation of a luminous atmosphere; frightful dreams; nightmare; gradual weakening of mind, and, above all, of the memory; loss of recollection of what was done during the paroxysm; the reappearance of the same delirium during each periodical return of the morbid phenomena; and, lastly, the violence and duration of the delirium being proportioned to the duration of the remission.*

In incomplete or abortive attacks, which present no affection of the muscular system, but appear in place of such, the patient loses all connection with the external world, utters hideous inarticulate sounds, jargons, words without connection, which indicate terror or some profound emotion. But of these events there is either no recollection or a dream-like recollection. "There are, moreover," writes Falret, "certain incomplete attacks of epilepsy which hold a middle place between simple vertigo and the complete attack during which, in the interval between the convulsions, the patients appear to be conscious of what is passing around. They speak and act in such a manner as to inspire doubt as to the real nature of these attacks, and to attach to what is said and done in this peculiar state of the nervous system a character of moral liberty to which they possess no title. This singular mental condition resembles in many respects somnambulism and other extraordinary nervous conditions. It may be equally compared to a state of dream." A. C. was long under my care. Her case presented the following salient points. She was subject to attacks of hysteric epilepsy, sometimes resembling syncope or lipothymia, during which, after great restlessness, the activity of the external senses and of consciousness were suspended, while the circulation, respiration, &c., continued undisturbed. The muscular system was, at such times, powerless and relaxed; but she never had true convulsions. Her ordinary, or lucid state, was one of capriciousness, jealousy, mendacity, malignity, and obscure eroticism. The eroticism is designated obscure, inasmuch as it was in no other manner manifested than in struggles, or in resistance to compulsory alimentation, to which she resorted in order to necessitate the approach of individuals of the other sex to her person. Such struggles often appear to take the place of involuntary muscular contractions. There was, however, remarked a more interesting feature. She often passed many hours in a waking dream or trance, in which she generally acted absurdly, spoke vaguely and menacingly, failed to

* 'D'une Forme de Délire, suite d'une Surexcitation nerveuse se rattachant à une variété décrite d'Epilepsie. Epilepsie Larvée.' Paris, 1860.

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recognise the persons and places around, but was capable of willing and performing various complicated transactions. These occasions were utilised as affording opportunities for removing large numbers of pins which she was in the habit of collecting in the sulcus between the cheek and the jaw. Although a deceiver, she had no object to gain in simulating somnambulism, nor, supposing the existence of an object, had she capacity to sustain such a deception; while her astonishment at the lapse of time, and the abstraction of her store of pins, on regaining her active mental state, was believed to be perfectly genuine and sincere. But, however long such a trance might last, and however numerous and significant her sayings and doings during its continuance, her memory preserved no trace of the series. These hours were a complete blank. At a certain stage in the progress of her malady it became difficult to determine whether she was vigilant or not, whether what she did was known to herself, and would be recollected or not. She ultimately recovered. "A remarkable phenomenon," Falret continues, "which frequently takes place in incomplete attacks of epilepsy, or in the interval between two complete attacks, demands attention. The patient appears to have come entirely to himself; he enters into conversation with those around, performs acts which appear to be dictated by the will, and seems to have recovered his normal condition, yet when the series has actually terminated, and the individual is actually in possession of his reason, he is found to retain no recollection of his words and acts during the interval."*

The connection of such a succession of events with the volition and responsibility of the individual is very obvious. Nor do these modifications involve the doctrine of the transformation of disease, for they must be regarded as states of the same disease aborted, imperfect, undeveloped; or as more highly developed and advanced stages in the process of degeneration.

The chain which has been traced out demonstrates that such patients were at no time perfectly sound or altogether exempt from the influence of accidents which are as much parts of the malady as muscular contraction, and, perhaps, as important parts of the malady in disturbing, or guiding, or governing the moral nature or in precluding all guidance and governance whatever. How far, or whether to the same extent and intensity as a fit, a momentary terror should affect the sayings, and doings, and thinkings, for days and weeks after it has passed away, cannot be well determined except by the estimate, perhaps the exaggerated estimate, or, at all events, an estimate open to suspicion, of the sufferer; but that such a state, taken as it should be as one of a series, must act detrimentally upon the mind, and must be accepted as a sign of habitual

* Falret, 'Archiv. Gén. de Méd.,' t. xviii, pp. 430 and 431.

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and established mental action which removes him from the category of healthy minds, cannot well be gainsayed. But even if this view be not carried out to what may prove to be its legitimate extent, it is indubitable that, *during* the accession of such exceptional states the patient is unable, or less able than at other times, to regulate either his ideas or his conduct; and that he may at the time fairly be regarded as passing through a paroxysm of epilepsy. Such states, again, exist as the sole expression of nervous disease, and where no convulsion is or ever has been associated with them. When this is the case they may sometimes announce, and are part of, greater evils, but at present they claim attention as specific and independent phenomena.

We have often compared the fury of the epileptic maniac to the rush of a runaway locomotive. It is not only that he throws himself headlong against all opposing objects and forces, regardless of himself and them, overturning, crushing, destroying, but that he is endowed with strength which is as irresistible as his murderous instinct is dangerous. At large he would be a destroyer; in a padded room, doors, walls, fall before his force and fury.* André and others have related cases where the orgasm was manifested in a sudden start and race forwards, in a straight line, until the patient was brought up by a wall, or a ditch, or by exhaustion; and then, however marred and mutilated he might be, deep unconsciousness prevailed. I have seen only one case of this kind. An epileptic is the most powerful as well as the most dangerous of lunatics. The mania is almost invariably destructive, often homicidal. Georget and Bucknill have adverted to the frequency of the association of epilepsy with the homicidal impulse. Trousseau, rushing into the region of hypothesis, holds that the mere commission of a motiveless, aimless, unpremeditated murder "est *presque certainement* le résultat du choc epileptique." ('Discours à l'Académie de Médecine.) It may, however, be affirmed that wherever there is abstraction or absence of mind, arrestment of the course of thought, double consciousness, sudden impulses inconsistent with the ordinary character and otherwise unaccounted for, there is reason to suspect the existence of epilepsy. Suicides, perhaps involuntary suicides, have been recorded, but their rarity is obviously due to the prevalence of dementia as the longest-continued form of alienation among epileptics. If a man so affected knocks his head against a table, and knocks both head and table to pieces, he is designated, and correctly, a madman; but if he knocks another man's head against a table with the same result, he is, somewhat inconsistently, apprehended and tried as a criminal. But what is more extraordinary still, M. Falret, whose

* "Many of the acts—under ordinary circumstances voluntary—during a series of epileptic attacks—partake of the involuntary irresistible character of the convulsion."—Falret, 'Archiv. Gén. de Méd.,' xviii, p. 430.

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writings upon this subject are in general judicious, argues that if an epileptic knocks his neighbour's head to pieces he shall be held to be criminal; but if he breaks his neighhour's table he shall be held to be insane, and therefore guiltless; in fact, supporting a plea for criminal responsibility and civil irresponsibility.

One of the first and most prominent complications of epilepsy is with idiocy. It has been supposed, upon the authority of mothers, that the fœtus was convulsed or turbulent in the womb; it is certain that newly born children have been affected, and almost contemporaneously with separation from the placenta, with epilepsy; and the fact that some of these cases were paralytic appears to countenance the maternal belief that intra-uterine disease had existed. Such disease, in whatever state of the nervous system it may ultimately consist, is often traced back to a particular time, to a moment during gestation, and to the agency of some powerful emotion experienced by the parent. Fallacious although their evidence may be as to the dates and their theory as to causes, the all but unanimous conviction that this impression was terror, physical or moral, establishes a connection which cannot be altogether attributed to fancy. Howe states (p. 78)* that the mother was subjected to fright or grief during pregnancy in 53 of 108 cases reported. Bouchet and Casauvielh found that epilepsy could be traced to fear in 21 of 69 cases.† Bearing in mind that mental emotions, and especially those of an overmastering power, and, above all, those of morbid origin, are more propagable than the form of body with which they may be connected, we must here allude to the predominance and rule of certain instincts in the mind of the epileptic. These are, or appear to be, pathognomonic, whether in the idiotic or mature epileptic. They are chiefly fear, sometimes arising as a blind panic, sometimes inspired by hallucinations at the time of the incursion of the attack; blind, furious rage during the excitement and agitation which succeed; and erratic, unregulated, and extravagant propensities and volitions which prevail during the interval.

The convulsion may stand in relation to the imperfect intelligence as a cause, as a co-ordinate affection, or as a consequence. In whatever light it may be viewed, this intimate and frequent association supports the opinion that the phenomena of idiocy cannot be regarded as those of undeveloped, but as those of perverted and diseased, mind. It will not do to deal with this epileptic Idiot viewed as a seed, a bud, a child, for whose progress and growth nothing is wanting save the light and heat of the suntide of education and knowledge, under which the seed will spring up into the tree, the bud expand in beauty and effulgence, and the child into the godlike attributes of wisdom and virtue. In sad and sober earnest, large numbers of

* 'On the Causes of Idiocy.'
† 'De l'Epilepsie,' &c., p. 76.

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this class cannot feel, see, speak, walk, even sit; cannot swallow until the bolus be placed within the pharynx; cannot control the sphincters, and are physically incapable of training of any kind or to any extent. The impairment of tactile sensibility and muscular contractility in idiots is important as interfering with their instruction even in mechanical acts and arts. In 476 examined, the average development of touch stood as 8·52 to 10; while in 494 muscular power was as 8·33 to 10. In 90 sensibility was in a state of hyperæsthesia in 4, natural in 14, no information could be obtained in 12, and anæsthesia existed in 60. In cases much less degraded epilepsy in itself offers a serious barrier to the benign influence of education—first, as an interruption to all systematic efforts; secondly, from the deterioration by which it is generally accompanied; for it is worthy of remark that idiocy, or the suppression of the faculties, stands in the same relation to epilepsy in the young, that dementia, or the extinction of the faculties, does to epilepsy in those of advanced age; and that, metaphysically, the states are identical; and lastly, as inducing irritability, or capriciousness of temper, violent passions and debased appetites. The idiot must not be described as merely without intelligence, but often as an unreasoning animal, actuated by the worst impulses of our nature; and where epilepsy is added to such a combination the danger that he will become the perpetrator of crime, or the disturber of social or family peace, is greatly increased, and increased in proportion to the removal from the healthy standard. Such a combination is by no means infrequent. Five years ago a census was taken of those of weak mind in Scotland. The tables then drawn up were, confessedly, imperfect, but they contain the most trustworthy information which we possess. Imbeciles and idiots, being classed together, amounted to 2236. Of these, while 43 are described as paralytic, 46 as hemiplegic, 10 as paraplegic, 17 as choreic, not less than 207, or nearly 11 per cent., were epileptic. According to Howe, in 531 cases of idiocy, 310 of which were referred to an adequate cause, 76 were traced to epilepsy.

Except that individuals so affected are generally more degraded, more deformed, more helpless, more irritable and intractable, the nature of their malady does not differ from that of idiots who are free from epilepsy. Yet, notwithstanding these discouraging considerations, it is precisely in members of this class that the benefits of what has erroneously been called training in place of treatment have been most manifest. Two results have followed these experiments—of one undoubted evidence can be obtained, of the other the proof does not amount to more than probability. We are satisfied that signal ameliorations have been effected in the condition of the epileptic idiot; that new feelings, new habits, have been imparted; that a certain amount of knowledge and mechanical aptitude have

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been communicated. But we are not satisfied that congenital microcephalic idiots have been cured, have been raised to an equality with reliable and responsible men, and embarked upon the world self-guiding, self-governing, self-supporting citizens.

Deeply interested in this branch of our subject, and having observed that a high authority, M. Parchappe, declared that ten individuals had been discharged from Bicêtre recovered from idiocy, I, some years ago, proceeded to France to see and examine these creations of our art. My mission was unsuccessful. I could not trace these convalescents to the loom, the plough, or the vineyard; I could not obtain accurate information as to the amount of capacity and enlightenment attained. But it was not fruitless; for these researches brought to light what may be ranked as a discovery, that, whatever the benefits conferred might be, the triumph had been achieved chiefly in the class of epileptic idiots; that certain of those discharged belonged to this class, and that the steps and rationale of the achievement consisted in the cure, or removal, or mitigation of the epilepsy, and the subsequent evolution, whether spontaneous or artificial matters little, of comparative lucidity and educability. It is unnecessary to insist upon this additional illustration of idiocy being a disease which is to be cured, not merely an embryo faculty to be developed. You can understand why, on finding corroboration of these observations in this country, I have since held the heresy that epileptic idiots are as favorable subjects for training as other idiots, if not more so.

The results of trephining in cases where the disease depends upon fracture, depression, or other injuries of the bones of the cranium, or to the membranes, whether primary or secondary, indirectly confirm these conclusions. When benefit follows the operation, that consists in the removal of the epilepsy, and consentaneously in the restoration of intelligence. I quote a case given by Dr. Hayward in the 'American Journal of Medical Science,' 1838, p. 517:—"After prolonged nervous derangement, continuing through thirteen years, the trephine was employed. A short, delicate, bony projection advanced from the interior of the skull; the dura mater adhered to it, but was separated by a probe without much difficulty. The membrane was quite healthy; instantaneous and complete relief followed to the sense of pressure which the patient had felt. He declared, whilst on the table, that he had not felt so well for thirteen years, and he afterwards wrote to the operator—'The peculiar sense of relief which I expressed on the moment when the operation was over has become a part of my common consciousness.'"*

In asylums, when an attempt is made to cure epilepsy, the main object is to mitigate or remove the mental symptoms, and in

* 'Brit. Med. Journal,' 17th June, 1865; Hull, "Determination of Blood to Head," Eighth Essay, 1842.

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instances where even traumatic epilepsy has ceased during the exhibition of iodide of potassium, the result has been that the mental and physical symptoms have been relieved simultaneously.

"There are a certain number of epileptics," writes Falret, "who, notwithstanding the intensity and frequency of their attacks, preserve nevertheless throughout life the integrity of their intellectual powers, and present only slight perturbations of character and intelligence, to which we cannot give the name of insanity."* But this is begging the whole question. In these "slight perturbations of character and intelligence" I detect infallible evidence of mental unsoundness, of the continuance of that disease which may be aggravated or complicated; may return in the form of delirium or convulsion, and which is here presented under a mitigated but unmistakable form.† It may be fairly urged, further, that when the character and intellect are perturbed it is a gratuitous presumption in an observer of such a disease to determine the precise amount of morbid influence which may be exercised over the emotions and will. The absence of fits may, in an epileptic, be styled health. But it would nearly be as reasonable to declare a patient labouring under ague convalescent in the intermission, as to represent an epileptic sane, and like other men, in the absence of the prominent symptom. However much the minds of epileptics may, in some respects, resemble those of healthy individuals, they differ from all of these, and differ in the same respect. The distinctions are mainly uncertainty of purpose, sudden development of irresistible impulses, and temporary interruption to thought. It is worthy of grave consideration, the analogy of these psychical conditions with the phenomena of the convulsion. It is not a vain conceit to compare the moral instability with the irregular involuntary character of the muscular action, the sudden impulse with the fit, and the temporary unconsciousness with the coma.

Zacchias argued that an epileptic might equitably be dealt with as well upon the third day after a paroxysm; confessedly, the difficulty as to the return of health and responsibility arises as to the interval, and increases in proportion to the length of that interval and the apparent exemption from extravagance or eccentricity which is enjoyed. The same difficulty occurs in the determination of the limits of health and disease in every form of mental affection; but were epileptic derangement admitted as a specific and generally chronic affection, and were it subjected to long and vigilant observation, these impediments would disappear and the ends of justice

* Falret, 'Archiv. Gén. de Méd.,' t. xvii, p. 488.

† Esquirol, t. i, p. 289, says, "When the attacks become rare, although the disease continues, the mind is progressively improved, the character of the patients is ameliorated; they are less irritable, more docile, more sociable; but I have *never seen one* who did not retain a marked physical and moral susceptibility."

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as well as those of science would be secured. The tendency to relapse—for the occurrence of one fit seems to predispose to others—whether the return of the convulsion be periodic or irregular is in itself a morbid element, and indicates a certain change in the structure and laws of the nervous system, over which the will can have no control. You will find in Dr. Laycock's work on 'Nervous Diseases of Females' (p. 314) some most interesting remarks upon the rhythmical or trochaic nervous affections. But the most significant peculiarity in choreaic, as distinguished from epileptic, muscular contractions, is that in the former case the patient can will, but not direct the initiatory or recuperative act, and can to a great extent regulate the rapidity and succession in which such actions are performed. I have seen the rotatory movement of the hands and arms go on for days, with perfect precision and regularity in the intervals. Yet even in certain modifications of epilepsy an emotion, or even the will, has the power of restraining, or rather of postponing, the fit, and of transferring its recurrence from day to night. Marcé estimates that two thirds of choreaics display disturbance of mental faculties, and in the following order:—I. Change in disposition. II. Impaired memory, attention, mobility of ideas. III. Hallucinations. IV. Maniacal delirium.*

If this tendency to relapse be more easily called into activity in epileptics than in well-constituted men, and, from the very existence of such law of periodicity, they are less able to resist the instigations and impulses which it entails as consequences, it appears incumbent to regard them as belonging to a class which must be judged according to different principles than those applicable to healthy men.

There are, besides, epileptic families. Hereditary transmission has been demonstrated to exist, but in fewer instances than in the other neuroses; and, what is remarkable, epilepsy is more frequently derived from insane than from epileptic progenitors.

Now, in such classes the slightest deviations from the established standard of the courtesies, and decencies, and decorum of life, or from that standard recognised by the patient himself, may be, as theft often is, a premonitory symptom, of which the patient has no true perception nor recollection; and while we would be slow to adduce crime as an evidence of disease, yet where crime is modified by the hereditary or paroxysmal tendencies, where it is of a monstrous, motiveless nature, or where it proceeds from an inexplicable motive, where it is committed suddenly in open day, in the presence of witnesses—without recourse to concealment or flight—there should arise a doubt and an inquiry as to its origin, and as to how far, or whether in whole or in part, its source is tainted by morbid

* "De l'Etât mental dans la Chorée," 'Mém. de l'Académ. Imp.,' t. xxiv, p. 18. 'Brit. and For. Rev.,' April, 1862.

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as well as by malicious influences, for it may partake of both—an inquiry unnecessary in the case of healthy offenders.

"A vine-dresser, in the neighbourhood of Lyons, was suddenly seized with a fit of shivering. He took up a mattock and killed three of his children, who were near him, in the house. A hundred steps from thence he killed his wife and his last child. Having accomplished all these murders, he went and gave himself up. This man was not intoxicated; he had never previously evinced signs of madness; there was no apparent motive to explain his action.

"M. Bottex, the physician charged with the examination of the vine-dresser, discovered that he had experienced vertigo and giddiness some days before the arrest. Besides this, he was sad, melancholy, and appeared to have had some idea of suicide. Other testimony established that he was much attached to his wife and children.

"The case then appeared most simple, and that transitory madness ought to be admitted without difficulty. But at this stage a witness came forward to reveal a strange proposition which the murderer had held ten months before. He had said that a man who should kill his wife and family would get off with a few months' imprisonment, because the physicians would make him out to be mad. In addition to this he had remarked, since his arrest, that one of his children, having survived its mother some hours, became her heir, and that as he himself was heir to this child his wife's property ought to come to him. The result became questionable, and in the report presented to the magistrates the existence of an access of transitory madness was only mentioned as a simple probability. The murderer was condemned to death, but the punishment was commuted to that of penal servitude for life."*

Such remissions are not, however, always extended to this class, even in France; but we cannot fail to desire that the plea of "extenuating circumstances" which obtains in that country, and which involves the principle of limited responsibility, and the provision for committing preliminary examinations of specially accused prisoners to scientific experts, were added to our own system of procedure.†

There is one phenomenon which by further observation may be found to be pathognomonic of epileptic insanity, even in long intermissions—and the extreme length of these is revealed by a case known to M. Baillarger, where marriage induced a relapse after eight years' immunity, and by the opinion of Dr. McLean, that infantile epilepsy is lighted up in after-life by malaria, scorbutic,

* Baillarger, 'Ann. Méd. Psych.,' Avril, 1861.
† Georget—Delasiauve, p. 501.

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and mercurial cachexia. That phenomenon is anæsthesia. Patients fall, are cut, bruised, are burned, or place their limbs in the fire, mutilate themselves. I had one who castrated himself, with an indifference and callousness and joyousness which demonstrated a numbing, if not an extinction, of sensibility. It is quite explicable that they may be protected from acute suffering by unconsciousness at the time of receiving the injury; although, when it is self-inflicted, this is only intelligible by referring it to the imperfectly conscious states to which allusion has been repeatedly made; but the same exemption from pain continues when lucidity is restored. In many cases, even during the interval, violent impressions are disregarded, and slight impressions do not appear to be felt. Nor is this modification of sensibility in proportion to the severity of the convulsive disease. Colquhoun gives the history of a man who, though retaining mental lucidity, and able to travel from one place to another, was, during the attack, insensible; though pricked, pinched, or struck, he felt nothing. He could not see when his eyes where forced open. He could not smell even the most volatile spirit, nor could he hear the report of a pistol when fired close beside him.* The passiveness which follows this inaptitude for receiving external stimuli is accompanied by great weakness of the muscular system. All epileptics, except during the paroxysm, are feeble, vacillating in gait, incapable of exertion or labour. There are thus allied the contradiction of titanic force and permanent muscular debility.

This obtuseness, though generally more particularly involving touch, is shared in by all the special senses. The same hebetude affects the mental faculties. Not only is this tardiness in the elaboration of ideas and of ideo-motor volitions, but there is a sluggishness in receiving influences from without that modifies the ties of an epileptic with his fellow-men in a marked and painful manner. I have listened to an answer given to a question addressed to a patient minutes previously, and when, in despair of intercourse, I was about to leave his room.

Without inviting any discussion as to the prescriptive limits of sensation and intellect, it may be held, and has been held, that a blind man is less responsible than a man endowed with vision, because he is cut off from many impressions, many sources of information, as to his relations with surrounding persons and circumstances. A man who is deaf as well as blind is still more restricted in his experience, his knowledge—is shorn of two elements which, in a great majority of cases, are required for the formation of both opinions and principles of action; when these deprivations, although partial, extend to all the inlets of information, and even to

* 'Isis Revelata,' vol. i, p. 333.

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the states of consciousness, or the powers recipient of external impressions, it is necessary to conclude that the difficulty in forming clear and accurate judgments, and of controlling or directing the instincts and motives, must be greatly enhanced. Even the element of time must affect such a question. The lucid, active, conscious existence of an epileptic is much shorter than that of his healthy fellow-men. Eleven hundred fits have been observed during one year, and though without obvious impairment of thought, with obvious abbreviation of the duration and continuity of thought.

A "fitty pauper" is well known in certain parishes. And while some of the ravages of epilepsy as an epidemic occupy a large space in history, it is encountered endemically upon certain highways and byeways, and near the doors of charitable lords of the manor. It is a profession, a source of revenue, an appeal to sympathy. You will suppose that the simulation of epilepsy must be difficult, infrequent, necessitate adjuncts and consequences which would frustrate the object in view. It is, however, a heritage of beggars; and one detected in a well-got-up fit confessed that he had been taught the trick by his father, who had carefully studied the symptoms in a book, and had practised the art successfully for twenty-eight years. A villager having entered a military hospital in order to be treated for a pretended epilepsy, had his attack whenever the medical officers paid their visits, and when they were a few paces from his bed. He shook, cried, writhed, and, doubtless, congratulated himself upon the secret of his success. The chief surgeon addressed several of his colleagues who accompanied him:—"Good, gentlemen; I have sought for this opportunity for a long time. You know that Hippocrates has said that eunuchs are not subject to epilepsy. It is accordingly necessary to castrate this patient, as in removing the testicles we shall probably cure the disease. Bring me the bistouries." At these words the patient leaped from his bed, asked pardon, and protested that he would rather be an epileptic than a eunuch.* The stratagem is common among sailors who prefer deck work to going aloft. During severe conscription times, according to Laurent and Percy, 20 in 100 recruits laboured under epilepsy. Another authority states, but is perhaps speaking of a time of peace, that of 7000 individuals examined in the space of four years, 28 were rejected upon the same ground. In France the proportion in the general population is 1 in 1000.† According to Dr. McLean, in the last statistical sanitary report of the army, 107 epileptics were invalided of 1993 soldiers admitted to Fort Pitt.

The introduction of soap into the mouth in order to afford the spumous saliva, the imitation of the cry and of the contortions of

* Legrand de Saulle, p. 442, op. cit.
† Legrand de Saulle, p. 441, op. cit.

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the frame, may appear vulgar and commonplace, and many physicians have believed that no ingenuity, no cunning, could deceive *their* power of diagnosis. Esquirol—whose name I never pronounce without feelings of love and respect—during one of those conferences which he encouraged while resting during his long clinique, and which rise vividly before me as the happiest moments of my student life—boasted in this fashion. One of the pupils shortly afterwards suddenly fell convulsed upon the floor, presenting all the features of severe epilepsy. Esquirol, watching with deep anxiety, turned to those around, saying, "Ah, poor boy, he is an epileptic." Up leaped the boy, crying exultingly, "You see, my master, that we *can* simulate an attack of epilepsy." That simulator was Calmeil, the first and still the greatest authority upon general paralysis, and now physician of Charenton, where the deceit was practised, and the narrative is given by Legrand de Saulle, p. 358. The disease of malingering—for the tendency to deceive is in many instances of morbid origin—is common in asylums, and the simulation of epilepsy is one of its favorite forms. This very instructive consequence of such practices has been noticed—the *pretended* has merged into a *real* attack, and, as in parallel instances in hysteria and in chorea, muscular acts which have been willed and co-ordinated for a specific purpose pass beyond the dominion of volition, and are performed without a purpose, and in conformity to the known course of nervous periodic affections. The locomotive is started, but cannot be directed nor restrained. The bearing of this upon automatic acts is obvious.

A grand psychological parallel has recently been drawn between Julius Cæsar and Napoleon I, and that by imperial hands. The character, the aims, of these regenerators of the social structure, separated by the interval of 2000 years, have been depicted as identical. The comparison will prove more striking, and will not be faithful nor complete until it be told that both were *epileptics*. It has been a favorite but most unfortunate and fallacious mode of opposing the proposition which we are now investigating, to enumerate many of the great and the wise and powerful of the earth, who have ruled the opinions and wills and fortunes of vast numbers of their fellow-men, and who appeared to control the course of human progress, as epileptics. It would be as logical to adduce the occasional connection of genius and crime as a proof that the mental light was undimmed by the vice. It may appear a paradox to say that the world is none the worse of a little enthusiasm and extravagance and excitement, to stimulate the dull and sluggard nature of uncivilised or half-civilised man, and that we owe something to the very errors and delusions of our ancestors. The "dreams at the dawn of philosophy" have sometimes awakened into the realities of demonstrable truth, and the reveries of a crackbrained fanatic are

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now the creed of millions, and destined, according to the prediction of a living anthropologist, to be the destroyers of paganism and idolatry, the civilisers of the African race. I have called the catalogue of illustrious epileptics an unfortunate and fallacious scheme, because the selections are of men of unhealthy nervous system, and because of their inner life we can now obtain no clear glimpse through the darkness or hazy glory of antiquity, lofty station, artificial society, &c. But let us look at them, or a few of them, by the lights we possess. Of the *first* above alluded to, apart from other interruptions to the sustained exercise of thought, we read that in the very senate he displayed discourtesy, and then offered his bared throat to any one who wished to become a tyrannicide. He then pleaded his malady in palliation of his rudeness, saying—mark the confession—"that those who are attacked are incapable of speaking when standing in public, that they experience shocks throughout the frame, that they feel confusion and a complete loss of consciousness." Of the *second*, it is recorded that hyperæsthesia of the scalp led to the *chapeau du petit caporal* so intimately connected with our ideas of this personage; that he was frightfully agitated by absurd antipathies towards cats, attacking them or their simulacra with the sword that blazed at Marengo and Austerlitz; that he laboured under partial chorea; that, like Sir Robert Peel, he was involuntarily plunged in profound abstraction, during which external objects faded from before him, and that he saw, if nothing more, certainly a personification of destiny, perhaps of his presiding genius, perhaps of that star that he believed guided him on his way.

Conceive the golden-mouthed apostle Bossuet a victim to the *petit mal*—terrified by the prospect of lithotomy, losing language, shorn of the glorious gifts which even now gives him a prominent place among the orators and defenders of the Christian faith; and think of him as haunted, persecuted, tyrannised over by an ever-recurring ode of Horace, which excluded every other thought and feeling.

Molière has been added to this group; suffice it to say that he was incapacited for work or thought, for that was his work, for fifteen days after every fit; that he lived on milk; drew his own portrait in writing 'Le Malade Imaginaire;' had a fit while acting the part, which, with consummate address, he concealed under a laugh; that he was estranged from his wife, chose an old woman as the critic of his plays, and was denied Christian burial as much on the ground of his eccentricities as his infidelity.

Newton's glimpse of "cycle in epicycle rolled" ended in epilepsy and dementia. The "tic nerveu," and perhaps the opiomania, of Madame de Stael ended in delirium. The delicately strung system of Pascal is a sort of lay figure on which to study the most rare and mysterious neuroses. He lived under incessant attacks of *petit mal*,

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and died convulsed. He wrote the bitterest satire and the most generous and genial dissertations on ethics. He was a mathematician, philosopher, moralist; but he believed in charms and amulets, and at all times, however occupied, there was an ever-yawning gulf beside him, a *gulf* into which he could not divest himself of the apprehension that he might be precipitated.

Many of those who do not impute imposture to Mahomet detect in his trances epileptic seizures, in his visions and revelations the false impressions and delusions of alienation, and in his gloom and retirement to Mecca the depression sometimes following the attack. It is recorded that, with the intention of concealing the real nature of his convulsions from his first wife, Khadijah, he represented them as the natural blinding and fainting of the spirit on the close approach of the Angel Gabriel. It would appear that he failed in this, as she is said to have regarded him as a madman deceived by the artifices of a demon, while the inhabitants of Mecca held him to be possessed.

It is interesting that, despite the doubts of the learned and judicial mind, popular opinion has ever assimilated the falling sickness with God's wrath and with mental infirmity. When it is wished to hint a doubt or hesitate dislike, to impugn perspicacity and truthfulness, the controversialist or calumniator, as the case may be, suggests that his victim is an epileptic. The arch-sceptic of modern days says, in this spirit, of the Author of Salvation, that he had vertigo, &c.

It has been insinuated that it is chiefly those who are familiar with epileptics in asylums that are disposed to regard all persons similarly affected as of unsound mind, and to exonerate them from the rigours of the penal law. This may be partly correct; but it is correct, not because physicians so situate are sentimentally humane or illogical in arguing from a narrow and exceptional premise, but because they enjoy constant and long-continued opportunities for discriminating observation which are inaccessible to all others.

No physician of ordinary practice, although he may never have been in an asylum—no common observer who has kept his eyes open, although he never saw a case of madness—but must be brought roughly into contact with men who, after an attack of epileptic convulsion, undergo alterations in manner, commit extravagances, or present peculiarities of character hitherto unnoticed, and of others where such alterations and peculiarities are inferred and traced back to such a source. But we are not always left to infer these states from conduct or from a theory of the disease; we possess the experience of many sufferers, who, although partially incapacitated from being witnesses by their condition, may be trusted as faithful exponents when their confessions coincide with such references. We have before us the spontaneous confessions and most harrowing analyses of themselves by men moving in society and exercising

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influence over it, and trusted and honoured by its members for sound judgment and sagacity; who were conscious of an unhealthy inner life, who did not trust themselves, who were haunted, not only by the ever-present shadow of coming insanity or dotage, for this is a frequent element of genuine and confirmed epilepsy, but by the suspicion and dread that what they *then* did was tainted by some lurking or latent vice, was perverted or wrong, but that they failed, from their very infirmity, to detect the nature or amount of the error. Many of the epileptic insane pass their lives in a moody, morose terror, and deprecation of the future, and in seeking sympathy for their misfortune; but the class to which our present observations are confined describe a revolution in their nature; they deplore the decay of lofty principles, the extinction of passions or emotions, as if by premature old age, and a callousness and estrangement from former friends and from favorite pursuits. They speak as if their spirit was involved in cloud, and darkness, and vagueness; they recoil from loathsome instincts, suggestions, and words, which rise up unbidden even when forbidden and resisted; they seem to lose hold of self and of the command of self, of the past, of personal identity. They feel as if they were only a part, and an unworthy part, of what they once were. And yet they assist at this moral dissection of their spiritual being, and retain such power and strength of purpose as for seasons, and especially when roused or distracted by the crush and crowd and noise of the world, to be enabled to set aside and forget these impressions, and to act independently of their existence.

We do not aver that one, or even a group, of such phenomena should place a man in the same relation as a raving, riotous maniac; but they are of such a character as to render him less capable of regulating his conduct, less capable to resist the all but omnipotent urgency of external circumstances; and, if not involving only partial responsibility, certainly demanding consideration and allowance from friends, associates, and public tribunals.

The sudden and inexplicable development of a proclivity to drinking, lust, and crime, in such cases, is an additional proof of the vast and morbid changes entailed upon the mental economy. In a very large proportion of the cases of epileptic insanity detailed by systematic writers some frightful catastrophe has first drawn attention to the mental condition, and led to sequestration. But violation of the law is found associated with epilepsy where no alienation is suspected. It appears from the 'Report of the General Prison, Perth,' for 1864, p. 58, that the number of epileptic prisoners for the last decennial period was 75, or 7·5 to a population of about 600.* Dr. Thomson has kindly supplied the additional information that there

* In the annual report of Broadmoor there are 21 subject to convulsive diseases in 323, or 1·15 per cent.

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are now in confinement 10 epileptics, of whom 3 are insane and 2 are imbecile, and says, "The large proportion of epileptics are more or less weak-minded, and should have a special hospital. I found my opinions chiefly upon the fact that epileptics are continually returning to prison, and, as they are weak-minded and cannot earn an honest livelihood, they are entitled to merciful consideration."

In the preceding observations I have said that epilepsy may be cured, or may cease spontaneously. You will not, consequently, suppose that I advocate so sweeping a proposition as that every one who has at any time been convulsed is permanently and irremediably of unsound mind. My purpose has been to represent epilepsy as one of a group of symptoms which, for a few seconds or for a lifetime, interfere with the operation of the ordinary laws of mind, and which should be regarded, especially in their psychical aspect—the loss or impairment of consciousness—as constituting a specific disease; and this purpose would be attained even were it admitted, as certain English observers hold, that thirty-eight per cent. of epileptics were mentally, in the absence of the fit, in a state of health. An attempt has been made to show that in infancy epilepsy is the cause or consequence of idiocy, interferes with mental health, and involves that limited consciousness which separates the sufferer from his fellow-men. It has appeared from our inquiries that various forms of mental derangement take the place of the convulsive attack; that the momentary giddiness is as much a departure from sanity, and may entail as formidable moral perversions, as the convulsive fury; that a mere delusion may be a substitute for the ordinary attack; that an individual acting and speaking naturally may be in an anormal condition which forms no part of his ordinary consciousness, and of which there remains not a trace in memory; that many of the acts, whether reasonable or extravagant, are as much automatic and involuntary as the muscular contractions; that neither of the wildest fury prompting to frightful atrocities nor of the passing caprice or irritability, is there a clear and coherent perception; that even the most mitigated form of such symptoms entail loss of sensibility, of muscular power, of moral sense, and moral control. I have refrained from taking any advantage of the evidence afforded by the symptoms of the mania of epilepsy, properly so called, as, except in their intensity, they do not differ materially from those of ordinary mania; nor by the epidemic forms of the disease, which, without any attempt to pun, have convulsed communities, all of which (even the recent outbreak at Morzine*) go to show that epilepsy, and its attendant mental perversion, is propagable, as well as hysteria, by imitation; nor by the

* Kuhn, 'Ann. Méd.-Psychol.,' Avril et Juillet, 1865.

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pathological appearances observed in those who have died of the disease. I have confined myself to the ordinary, characteristic mental life of epileptics. If I have succeeded, you will be enabled to take a wider and broader view of the relations of this large class of unhealthy organizations moving amongst us; you will come to the conclusion that epilepsy is no bodily disease, to be relieved by a pill or a potion; but a mental blight poisoning the purest and kindest natures, darkening the brightest intellects, and prostrating the best and noblest resolves before secret, sometimes slight, irregularities of the nervous system, which constrain, compel; and over which neither reason nor religion can exercise any influence.

CLINICAL CASES.

The Bromides of Potassium, Cadmium, and Ammonium, in the Treatment of Insanity. By THOMAS B. BELGRAVE, M.D. Edin., Assistant Medical Officer, Lincolnshire County Asylum.

(*Read at the Annual Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, July 13th,* 1865.)

THE following experiments were initiated more particularly with a view to ascertain the therapeutic value of two of these agents in the treatment of "general paralysis;" and though yielding no evidence of our ability to avert the ordinary termination of this malady, they reveal the possibility of controlling some of its more serious occasional manifestations, as also similar symptoms in other forms of mental disease.

Fourteen cases of "general paralysis" were taken, none, however, being in a very advanced stage.

The bromide of potassium was administered in doses of five grains three times a day.

In Cases 1 to 5 (males) the only effects observed were a slight retardation and enfeeblement of the pulse, with some amount of general depression, as evinced by increased lassitude and indisposition to stir or talk. Cases 6 to 11 (females) exhibited similar results; two of these patients, however, emaciated rather rapidly, and one, hitherto remarkable for hilarity and cheerfulness, became fretful and low-spirited.

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