condition occurring again under similar conditions would regulate the rate of discharge, and again also the question of liability to phthisis and to other diseases as against what one meets with in general asylum conditions; and the death rate—one or two points of that kind would have been interesting to hear. Perhaps he may give us one or two bits of information of that kind when he replies.

Dr. BRAYN.—First of all I would like to tell Dr. Stewart I had not any intention of rendering injustice to Ireland, but found that unless I kept very strictly to the point it would involve making a very much longer business of it, and as I thought that there was another paper to be read I could not possibly occupy so much time. The only other point I remember is about the period of detention of female patients. Every case is decided on its merits, and it all hinges on the probability of the patient relapsing; if she has been insane before, the circumstances under which the insanity occurred practically settle it. With regard to the death rate—our death rate is somewhere about 3 per cent.

Epilepsy and Crime. By JOHN BAKER, M.B., Deputy Superintendent, Broadmoor Criminal Lunatic Asylum.

IN studying epilepsy we see and study symptoms only. The pathology of the disease is very obscure, and it is mainly from its clinical features that we are able to assume the presence of detrimental changes in the more highly specialised tissues of the cerebrum. These changes may be primary or developmental as in the idiopathic type; or they may be accidental, and due to toxic agencies or traumatic injury; or they may be senile, as seen in rare cases (not accidental) occurring in late adult life or old age. Whatever the origin, a condition of nervous instability is set up, which may vary in every possible degree, from simple molecular disarrangement, giving rise to perverted functional action for a brief period of time only, to more lasting effects which conduce to morbid energising of a permanent nature.

In the light of our present knowledge of the disease it is almost impossible to formulate a definition of epilepsy that will be at once specific and comprehensive, for the reason that so widely divergent views are held as to its limitations. For our immediate purpose we have elected to quote the definition of Professor Ottolenghi, one of the ablest of the followers of Lombroso, because its scope is all-embracing, and because it is sufficiently elastic to commend itself to those who hold the most advanced opinions on the subject. Ottolenghi states that "epilepsy is a functional degenerative syndroma, which takes more or less intensely one or other of the following

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forms :—Motor, sensory, or psychic (intellectual or emotional) convulsions, according to the character of the individual in whom it is manifested." Adopting this definition as a basis, we may, after the manner of van Gieson and Sidis, classify the different types of epilepsy thus :

I. The typical fit epilepsy, which may be divided into—
   A. Epilepsia gravior (Grand mal).
   B. Epilepsia mitior (Petit mal).

II. The typical fit epilepsy, including A and B, and associated with abnormal mental states, occurring either as the epiphenomena of the fits, or independently and intermittently between them.

III. Attacks of purely psychic derangement with entire absence of association with the fit phenomena of typical epilepsy characteristic of Group I.

More briefly we may arrange the grouping as follows :—(1) Epileptic fits with sanity ; (2) epileptic fits with insanity ; (3) so-called epileptic insanity without typical fits.

With regard to the first group, Clouston states that epilepsy may exist with perfect sanity, although it always tends to enfeeblement of mind; and Campbell Clark remarks that 50 per cent. of all epileptics remain sane, and escape the climax of this terrible disease.

In the second group the typical fit-like phenomena are associated with morbid mental derangements of various degrees of intensity and duration. These insane outbreaks, when not in proximal relation to the typical fits, are simply interspersed at more or less frequent or infrequent intervals between them, and are sometimes described as the psychic equivalent of epilepsy. Such correlative mental states present various characteristics. Sensation may be blunted, perception perverted, ideation dulled, reasoning and judgment impaired, the patient becomes more emotional, and there is diminution of the power of will. The two most prominent features are irritability and impulsiveness, which may exist in every degree, from the merest excess of irritable temper and irrational conduct to the most dangerous homicidal impulses and acts. Clouston states that a murder by an epileptic should usually be looked upon as being as much a symptom of his disease as larceny by a general paralytic ; and further, that if a man has been subject to regular epileptic fits,

and commits a homicidal act in an impulsive or motiveless manner, the presumption would be very strong that he was not fully responsible for his actions.

The question of responsibility, however, is altogether on a different footing when we come to consider the third group of cases, viz., those alleged to be suffering from pure psychic epilepsy. Yellowlees long ago remarked that it was the fashion to call every seizure we do not understand epileptic, and undoubtedly there exists at the present day, especially amongst criminologists, a disposition to put all kinds of mental derangements and irresistible impulses under the heading of epilepsy. Out of 265 criminals, Ottolenghi found 80 to be epileptic, *i.e.*, 30 per cent.—a large proportion, corroborating the well-known views of Lombroso as to the prevalence of the neurosis among criminals. There were no less than 78 of these described as cases of psychic epilepsy, and they were variously denominated—vertiginous, unconscious, and automatic without violence—so-called iracondia morbosa epilettica, purely intellectual psychic epilepsy, and violent psychic attacks leading to crimes of blood. In the ordinary acceptation of the word, not all these would be looked upon as true instances of epilepsy. By their inclusion the term becomes stretched and strained to such a degree as to lose all definite if not rational meaning.

At the recent meeting of the British Medical Association held at Ipswich, it was gravely suggested in the psychology section that many cases of recurrent mania really belonged to the type epileptic, and that they should be classed as epileptoid insanity. The suggestion, we are glad to note, did not meet with favour. A timely protest is needful to counteract these extreme views, and it seems to us that although some forms of mental derangement arouse the suspicion that they are connected with epilepsy, unless the actual occurrence of epileptic fits has been observed by persons competent to judge of their validity, or has been proved by fair inference on medical testimony, it is not in consonance with the dictates of medical science to regard any form of insanity as epileptic. There are not sufficient grounds for supposing that pure psychic epilepsy, entirely and absolutely dissociated from typical fit phenomena, exists as a disease *per se* and, from a medico-legal standpoint, its employment as a defence for crime is altogether inadmissible.

With this expression of opinion we shall now proceed to give some information, statistical and otherwise, in connection with the epileptic cases admitted into this asylum.

Since the opening of the asylum in 1863 until the present date (October, 1900) the number of patients admitted has been 2435, viz., 1860 males and 575 females; of these 139 men and 26 women are described as epileptic, being 7·5 per cent. of the males and 4·5 per cent. of the females.

The following table shows the nature of the crimes and offences of these epileptic patients:

—	Males.		Females.		Total.	
A. Crimes of violence against the person:						
(1) Homicidal offences:						
Murder	49	...	17	...	66	
Manslaughter	2	...	1	...	3	
Attempt to murder, maim, etc.	39	...	2	...	41	
Exposure of child	...	...	1	...	1	
Total		90	...	21	...	111
(2) Non-homicidal offences:						
Assault with intent to rape	2	...	...	...	2	
Carnally knowing	2	...	...	...	2	
Attempted suicide	2	...	...	...	2	
Total		6	...	...	...	6
B. Offences against property:						
Larceny	23	...	5	...	28	
Burglary	6	...	...	...	6	
Sheep-stealing	2	...	...	...	2	
Forgery	2	...	...	...	2	
Arson	7	...	...	...	7	
Placing obstruction on railway	1	...	...	..	1	
Killing a lamb	1	...	...	...	1	
Coining	1	...	...	...	1	
Total		43	...	5	...	48
Grand total		139	...	26	...	165

There are two prominent features connected with this table:—(1) the disproportion between males and females; (2) the disproportion between crimes of personal violence and offences against property.

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The Disproportion between Males and Females.

Amongst epileptics generally, Gowers gives the proportion of 53·4 per cent. males and 46·6 per cent. females. Clouston remarks that the disease is less common amongst women. In Germany, Sommer found 60·7 per cent. male epileptics to 39·3 per cent. female. With regard to criminals, Lombroso affirms that epilepsy is infinitely rarer in females than males. Marro shows that motor epilepsy is one third less among women delinquents, and Dr. Brayn informs me that the neurosis is very seldom met with amongst English female convicts. In the English prisons, during the year ended 31st March, 1900, eighty-six male and thirty female convicted prisoners were certified to be insane. In six men and only one woman the insanity is noted as having been due to epilepsy. The proportion of males to females amongst the epileptic patients admitted into this asylum is 85 per cent. men and 15 per cent. women. It is therefore evident that the ratio of male epileptic delinquents to male epileptics generally is far larger than the ratio of female epileptic offenders to female epileptics generally, and that the proportion of males who commit crimes in a state of insanity is much above the proportion of females. This may be due to the fact that the psychic activity of man is greater than that of woman; or, as Lombroso avers, to the tendency which the disease, when existent in women, has to assume the form of wantonness, which, however reprehensible in itself, is less dangerous and does not lead to sensational trials and jealous reclusion; or, as Tonnini remarks, to the liability of the neurosis to cause dementia and imbecility in women rather than the more active forms of insanity. Certain it is that out of the small number of female epileptics at present in the asylum, more than half now display this tendency to mental enfeeblement without violence, not because of age and infirmity, but simply as a characteristic of the disease. The remainder retain their impulsive and dangerous propensities.

Again, the homicidal acts of the female epileptics admitted into Broadmoor convey an impression of deliberation in the execution of the crimes, which is wanting in the majority of the cases of male epileptics charged with similar offences.

Amongst the cases of infanticide perpetrated by female epileptics, drowning was the means adopted in five instances; in only one case was this method selected by a male epileptic. Women, on the whole, are more often merely occasional criminals, and, even when criminals from passion, they rarely commit their crimes in one of those sudden impulses characteristic of the epileptic psychosis.

The Disproportion between Crimes of Personal Violence and Offences against Property.

Amongst the criminal acts which may be committed by epileptics are homicide and homicidal attempts, suicide, theft, incendiarism, etc. It will be readily gathered that, owing to the nature of the malady, attacks of violence against the person largely predominate. In reviewing the Broadmoor cases we find the following ratio:

	Males per cent.	Females per cent.
Crimes of violence against the person .	69	81
Offences against property . . .	31	19

Murder and attempted murder bulk most largely in the former class; larceny and arson in the latter. The relatively large proportion of offences against property amongst the men is owing to the fact that the number of male convicts is far in excess of that of female convicts. The admission of a female convict is indeed a rare event. Without doubt there is room for improvement in the legal procedure connected with the administration of justice in the case of minor offences, especially when no remand is ordered. When cases are summarily dealt with, the question of insanity is rarely raised, no interest is felt in the accused, and fines or imprisonment follow as a matter of course.

It is, however, with the major crimes that we are more nearly concerned, with the cases in which the sanctity of life is in question, with the homicides and homicidal attempts. There seems to be a common impression that the case of the epileptic comes more frequently before our courts of law than any other disease that entails mental disorder.

Clouston is of opinion that there is no other form of insanity

that, outside of asylums, is more often the cause of murder except, perhaps, the alcoholic. In Dr. Blanche's work on Insanity and Homicide, epilepsy and alcoholism are represented as the maladies with mental derangements in which homicidal attacks most frequently prevail. Delusional insanity (persecutory) is placed next in order. Broadmoor is the home of systematised delusion resulting in homicide, and we would rank that form of mental disorder before epileptic, and not behind alcoholic insanity, in respect of crimes of violence against the person. The value of alcohol as an ætiological factor is perhaps somewhat exaggerated, and not unfrequently the resort to drink is consecutive to the origin of the mental disease. That it plays a disastrous part in all insanities cannot be gainsaid, and, often imbibed as it is to relieve the gloomy oppression that pervades the mind of the unhappy sufferer, it only serves, by its after effects, to intensify the symptoms and hasten the impending tragedy. Some varieties of epilepsy predispose to homicide and homicidal attempts more than others. When there is a tendency and habit of brain to sound sleep and long rests after each fit, there is apt to be less mental impairment and fewer maniacal attacks. This is usually seen after severe motor seizures. At times, however, the patient will wake out of sleep in a state of furious mania, more acutely active than almost any other form of insanity. Nevertheless a patient with the tendency and habit of brain above alluded to is, on the whole, probably safer than one in whom occurs a minor or incomplete motor seizure, in which the discharge is followed by a mental disequilibrium, which amounts to a greater or less insanity. That abnormal acts take place in such a state of mind is almost natural, and that homicidal acts preponderate is no doubt due to the nature of the concomitant hallucinations and delusions.

These abnormal mental disturbances may occur—(1) before fits; (2) after fits; (3) interspersed between fits; (4) in substitution of fits,—the fits having ceased.

(1) Before fits they may take the form of sensory perversions—feelings of unaccountable dread, illusions, hallucinations, delusions,—or they may occur as maniacal outbreaks: occasionally there is a feeling of unaccountable dread, as of impending dissolution.

E. S—, 22, a collier, with a history of traumatic epilepsy, attempted to murder another man, and was admitted in 1898. He had been resident two years before any fits appeared. In August last, whilst undressing, preparatory to retiring to rest, he informed two fellow-patients that he felt as if he were going to die during the night. Two hours afterwards he commenced a series of attacks amounting to seven in all. They were severe motor seizures.

W. D—, 37, a blacksmith, who had suffered from epilepsy since childhood, one evening accompanied his mother to the house of a neighbour. On arrival he said he felt ill, declared he was dying, asked his mother to kiss him, and desired those present to pray for him. Shortly afterwards he returned home in company with his mother, and the neighbour; a slight seizure supervened, and he lay down to rest. The subsequent tragic proceedings of that eventful night will be detailed in discussing the subject of post-epileptic mania.

Again this feeling of dread may take the form of being hunted to the death, and is then usually accompanied by terrifying illusions and hallucinations.

C. S—, 18, was the subject of idiopathic epilepsy due to fright. He was tried and condemned for the murder of his uncle. It transpired in the evidence that some time before the tragedy occurred, he, one day, with an open knife in his hand, rushed up to his father exclaiming, "*Look, there is a big man coming to kill me.*" The knife suddenly dropped, and he fell to the ground in a fit.

W. B—, 26, a shoemaker, had suffered from epilepsy for seven years. He had been dull and moody all day. His wife and father-in-law were sitting at the table about to begin supper. Suddenly he rose, placed the left arm round his wife's neck, kissed her, and with his right hand attempted to cut her throat. The weapon used, a knife, was seemingly blunt, and she was not greatly injured. B— was secured with difficulty and put to bed. A policeman remained by his bedside all night. During the early morning hours he started up and said, "I intended to have done it." "Done what?" asked the policeman. Thereupon the epileptic made the gesture of drawing his finger across the throat. Next morning when taken to the police station he had a severe fit. He was acquitted on the ground of insanity, and sent to Broadmoor. Here epileptic seizures were frequent. Before they occurred he was sometimes gloomy and taciturn, at other times restless, excited, and incoherent, calling out *there were devils around him, and that he was persecuted by witches.* His mind became more enfeebled, and he died in the status epilepticus. The brain weighed 45½ oz., the dura mater was thickened, and the grey matter of the convolutions wasted and pale, especially over the upper portions of the frontal lobes. In this region several convolutions were depressed below the general surface, and altogether softer and smaller than those in the immediate neighbourhood. The circle of Willis was incomplete, the posterior communicating artery being occluded and reduced to a mere shred on the left side, and very much attenuated on the right.

In some cases delusions of suspicion and persecution form the prominent features of the pre-epileptic state.

G. B—, 30, fell from a scaffold injuring his head. Epilepsy followed. He was confined in a lunatic asylum, and there murdered a fellow patient by fracturing his skull with a chamber utensil. He and his victim had been good friends previously, but after the murder B— *stated that the other intended to kill him.* He was transferred to Broadmoor. As a rule he was silent and moody, and employed much of his time in reading a prayer-book. When fits were impending, however, he became maniacal and highly dangerous, striking out indiscriminately. Latterly, before the fits, he was wont to bathe his head in his own urine. He had delusions of an exalted religious nature. His brain weighed 48¾ oz., and the base of the skull was found to be twisted and irregular.

S. S—, 28, suffered from traumatic epilepsy. Shortly after marriage his wife left him, but subsequently resumed cohabitation. A housekeeper, whom he employed in the interval, stated that he was subject to frequent fits. Prior to the attacks he often smashed pieces of furniture, but would deny all knowledge of his violence after the fit was over. One afternoon, about six months after the return of his wife, they were visited by her father and two other gentlemen, who came to canvass his vote for an approaching election. During the interview he appeared very quiet, took little part in the conversation, which was mostly carried on by his wife. Half an hour after the departure of the visitors he hacked his wife to pieces with a sword. Shortly after the tragedy he was seen to leave the house hurriedly, call a cab, and drive to the police station. On his arrival, the inspector on duty found him to all appearance drunk; he was crying out in a rambling way *that his wife and the two gentlemen who had called to canvass him were in league to place him in a lunatic asylum.* The news of the tragedy soon spread and was swiftly carried to the police station, and there and then the epileptic was charged with the murder. In reply he said, "I didn't kill her: is she dead?" and thereafter repeated the statement that they intended to put him away. There is no distinct history of a fit having occurred, but that one was impending can be readily deduced from the previous history, and it is more than probable that the motor paroxysm expended itself in the atrocious hacking he inflicted on his wife. He was acquitted on the ground of insanity. He denied all recollection of the crime for a number of years, but ultimately stated that he had killed his wife wilfully. During his sojourn in Broadmoor he was, on the whole, quiet and tractable, and deeply religious. Before and after fits, however, he became violent and maniacal. He developed asthma, and died after a fit. The brain was large, weighing 55½ oz.; no other abnormalities were noted.

Furious mania of a somewhat prolonged character, and accompanied by terrifying hallucinations, has been observed to occur as a prelude to the seizures, but in only one or two

instances amongst the Broadmoor cases has the precursive aura been seen.

2. *Post-epileptic Phenomena.*—The mental derangements consecutive to the attacks vary in their time of onset, and particularly as regards their severity and gravity. In the literature on the subject more attention seems to have been bestowed on these post-epileptic states than on pre-epileptic phenomena. They may appear as irritability or irrational conduct, suspicion or false accusation, accompanied or followed by mania or epileptic furor, with suicidal and homicidal impulses. Every one who has had to deal with epileptics knows their irritable temper. We have seen that suspicion and false accusation are prominent characteristics of the morbid mental condition preceding the fits. To the permanence of such impressions or thoughts in the sensorium at the beginning of an attack is due, moreover, the purposed execution of many acts by the epileptic after his fits, for suspicion is then revived with maniacal intensity. These unreal suspicions—for they are more often false than real—constitute one of the most important features of the neurosis, for to the legal mind they may appear in the light of motive or malice aforethought. No doubt, in many instances, they do savour of malice, but it is the malice engendered by a distorted and disordered intellect, with a power of will so defective as to be incapable of restraining the exhibition of malevolent action. We shall go so far as to say that some know the nature and quality of the act, know they are doing wrong, but are about as powerless to stay their impetus as an engine in which the brake fails to act.

E. H—, 21, a congenital epileptic, had a fit at midday. He was observed to be somewhat restless and querulous in the evening. Next morning, after partaking of breakfast in bed, he rose, donned a dressing-gown, and with a gun in his hand proceeded to the room of one of his sisters. There he deliberately shot her through the head. He next attempted to shoot himself, but only succeeded in wounding his cheek. The door of the room, which he had locked, was forced. He rushed out, threw himself down several flights of stairs, and finally dashed his head against a wall. When secured and put to bed he informed a relative that the explanation of his conduct would be found in a letter to be procured by searching the pockets of his coat. This letter expressed his intention of shooting his sister and taking his own life. The contents displayed great rancour and animosity against his victim. He was conscious of what he had done, but expressed no contrition,—rather the reverse. He had been frequently heard to call this particular

sister "a beast," although apparently on good terms with the other members of the family. He was found guilty but insane.

L. E—, 23, suffered from traumatic epilepsy. One Sunday his brother prevented him going to church. After a restless night he rose early, secured possession of a gun, and meeting his brother shot him without compunction. He said he was perfectly justified in doing so, as God had commanded him to that effect. He was acquitted on the ground of insanity. He had frequent seizures, was often maniacal, saw the Almighty in visions, and died in the status epilepticus. The brain weighed 48 oz., and the left hemisphere was two ounces less in weight than the right.

The two succeeding cases are examples of homicide occurring during typical post-epileptic furor.

The first is the case of W. D—, whom we left in a post-epileptic sleep preceded by an aura or feeling of impending death. His mother and a neighbour were the other occupants of the room. The sleep lasted half an hour; he awoke, and immediately accused the neighbour of trying to poison him. It will be remembered that the painful aura occurred in her house. She endeavoured to soothe him; his excitement increased, he sprang to his feet, and threatened her with his fists. Meanwhile the mother had quitted the room to summon assistance. Observing her absence, he followed, and returned dragging her by the hair of the head. He then threw her on the ground, drew a clasp-knife from his pocket, and threatened to murder her. At this crisis several men, armed with wooden rails, entered the room, and after a struggle, during which the epileptic received a blow on the head, succeeded in rescuing the mother and obtaining possession of the knife. A rival blacksmith, against whom the epileptic bore a grudge, next appeared in the doorway; catching sight of him, the infuriated maniac seized one of the staves, and rushed at his rival, who fled, and made good his escape. Returning, the epileptic met one of the other men outside the house, attacked him, felled him to the ground, and rained blow after blow on the unfortunate man's head,—a characteristic example of epileptic fury. He was apprehended with difficulty, and, when charged with the crime, said that "they had worked him up, so that he could stand it no longer, watching and peeping about the house, and *that he had given Gell* [his victim] *one*." He was tried, and condemned to death, but the sentence was commuted, and for a considerable time he was an inmate of the lunatic wing at Woking prison. He was ultimately transferred to Broadmoor. For the most part he was melancholic and intensely religious. After his epileptic seizures mania supervened, lasting usually for a period of twenty-four hours. His skull was irregular in shape, showing a general bulging of the right occipital region, and being particularly thick and dense, especially over the right frontal area. The brain weighed 44¾ oz.; there was no abnormality noticeable.

W. L—, 27, had suffered from epilepsy for several years, the supposed cause being violent exertion at running. He had two fits, one about thirty-six hours before, and another twelve hours previous to the occurrences

we are about to relate. He was engaged in night work as a puddler, and proceeded to the scene of his labour accompanied by his eldest boy, aged fifteen. The boy stated that although his father was able to perform his work, he talked "senseless," answering questions by repeating "Yes," "Yes," "Yes," without seeming to understand what was said to him. They left off work at 4.30 a.m., and returned home. The boy had difficulty in persuading his father to retire to rest, but ultimately he succeeded in inducing his parent to go to his bedroom, he himself occupying an adjoining one. The son was unable to sleep owing to the noise made by the father, who continued walking about, alternately talking to himself and addressing his wife, and every now and then praying that God would forgive him. This lasted until 8 a.m., when the boy was alarmed by a loud scream from his mother. Hastening to the kitchen whence the noise proceeded, the boy beheld his mother on the floor, with his father sitting on her body brandishing a knife in one hand, and a poker in the other. The father attempted to seize the boy who was endeavouring to rescue his mother, but fortunately he escaped; and a woman, who was attracted to the scene by the noise, was told she would be served in the same way if she interfered. In the confusion the mother was enabled to regain her feet, and made for the door, but before reaching it was felled by a blow from the poker, the injury proving fatal a few days later. The epileptic, poker in hand, rushed up the street, smashed in the panels of a public-house door, and was only secured after a desperate struggle. Whilst being conveyed to the police station he sang and danced and prayed alternately. He managed, however, to inform a constable that "*he had done a job for his wife he had long wanted to do, and he hoped that God would forgive him.*" He was acquitted on the ground of insanity. During his asylum life he suffered from auditory hallucinations and delusions of persecution. He displayed the tendency to religion which is such a common phase in these epileptic cases. His behaviour was generally correct except after fits, when he became very violent; on several occasions he assaulted attendants. The brain weighed 47 oz. There was softening of the corpus callosum.

One point stands out clear and distinct, viz., that in many of these epileptic homicidal acts consciousness is retained, nor is memory obliterated, at any rate immediately, although subsequently it is possible that all recollection of the deed may be lost. It sometimes happens that, in dealing with these criminal cases, amnesia is confused with unconsciousness. From the fact of amnesia unconsciousness is inferred, because the two are thought to be identical. Amnesia, however, does not imply unconsciousness—the two are not the same. Unconsciousness, being a cessation of all psychic activity, naturally includes amnesia, but amnesia does not necessarily include unconsciousness. The retention of consciousness, and even of memory, is perhaps most frequently seen in those cases in which there

exists a pre-epileptic condition of suspicion or smouldering hatred fanned into the highest intensity in the post-epileptic stage. The degrees of possession of the delusional thought prior to the fit, and the purpose accompanying the delusion, are such as not to efface from the memory of the epileptic the acts which he has unwillingly accomplished under the irresistible thraldom of the attack. Consciousness and memory are, therefore, not inconsistent even with epileptic furor.

There are post-epileptic states, however, during which criminal acts are performed in an unconscious condition. These cases are of necessity amnesic. Savage states that a fit of greater or less degree may or may not be followed by sleep; any may then be followed by fully organised and definite unconscious and automatic acts. These cases, he affirms, are analogous to the so-called masked epilepsy. Take the case of the woman, E. C—, first quoted by Dr. Orange.

One day, whilst dressing her infant, she rose with the view of procuring some bread and butter for another child. She had a slight seizure, and instead of cutting the bread severed her infant's arm at the wrist. When she recovered consciousness she found several neighbours and a policeman in the room, the latter taking from her the severed hand, which she was fondling. Once before in cutting bread she unconsciously injured her thumb. She had no recollection of either act. During her asylum life she suffered from both grand mal and petit mal. The attacks usually came on about the third day after the catamenial period. She was occasionally maniacal, gradually drifted towards dementia, and finally died of cancer of the vagina. Calvaria thick and dense; dura mater thickened; ventricles distended with fluid; convolutions apparently normal. Weight of brain 40¾ oz.

A somewhat similar case was that of H. J—, who became subject to epilepsy after head injury, and intensified by habits of intemperance. He went to a slaughterhouse with the object of interviewing a man concerning the killing of a pig. On returning home he beckoned his little girl, who was sitting on the doorstep, into the house, and he had no recollection of anything happening, until a few minutes afterwards he discovered the child lying across his knees with her throat cut. He had no return of fits until February of this year, when a severe seizure occurred—an interval of twelve years.

These cases are instructive; the pre-epileptic idea filling the mind had no trace of malice or suspicion; it was perfectly innocent, and yet became transformed into a post-epileptic criminal act,—the infant's arm became the loaf, the child's throat that of the pig. Mark the distinction. Where suspicion and malice were present in the pre-epileptic stage the result

was conscious criminal acts without loss of memory; where suspicion and malice were absent, unconsciousness, and therefore amnesia, prevailed.

The automatic acts above described were simple and uncomplicated in their character, and they took place immediately after a seizure, with the weapon ready at hand. It is claimed, however, that a person during post-epileptic automatism may, with or without motive, perform more prolonged, purposive, and intricate acts of a criminal nature, at the same time selecting a favourable environment for his misdeeds. When there is no definite history of a fit, proximate or otherwise—and this is sometimes not ascertainable—the proof mainly hinges on the amnesia. The question then comes to be, is the amnesia real or assumed? It is a most difficult problem to solve, and a decision can only be arrived at after repeated cross-examination. The difficulties of the position are increased by the fact that no person is bound to incriminate himself before trial, and the examiner is, in a measure, handicapped, because it is almost his duty to inform the examinee of this before commencing to question him; and the difficulty is further enhanced if the accused's solicitor and friends have had access to him before the examination, and still more so if he has been placed in association with other prisoners. If they do not tell him "to hear voices," they will assuredly urge him, in prison parlance, "to keep his mouth shut."

A man bears a grudge against a neighbour; he selects his weapon, goes to the neighbour's house, asks if he is at home, desires to see him, all the while concealing the weapon as best he may, and on his neighbour's appearance deals him a fatal blow. There is no definite history of epilepsy, but the defence is post-epileptic automatism, and the defence prevails. He recollects nothing from the day before the crime until several days afterwards. In an unguarded moment, however, whilst under examination, he reveals the identity of the policeman who arrested him, his occupation at the time of the arrest, which he stated took place two hours afterwards. After what? A look of chagrin, no answer, and no further information. Apart from the automatic theory, the man was morbidly suspicious, and had a definite delusion. This is no imaginary case.

The question of amnesia, in relation to crime generally, is very important. In the case of the accidental or occasional criminal who commits a homicidal act, although he may reveal the attendant circumstances leading up to the

crime, it is very rarely that he can be induced to confess the actual details of his misdeed. It requires a great mental effort to so confess. One man stated that the questions put to him caused the most exquisite mental torture, and that he felt as if he were being literally dissected. Can we then wonder at the reticence displayed? On the other hand, our experience of a vast number of offenders leads us to the conclusion that the average criminal is profoundly amnesic. To use his own phraseology, he is either in prison innocent, or he is there for another man, or he was so drunk at the time that all recollection of the offence is blotted out. The fact is that the average criminal is wont to handle the truth very carelessly. In the October number of the *Journal of Mental Science*, Dr. Mercier comments on the case of a man who was indicted for wounding his son and attempting suicide. He was bound over to come up for judgment if called upon. Dr. Mercier remarks, "With the verdict and sentence we cannot fail to agree, but it is noticeable that the prisoner on his discharge from hospital said he knew nothing about it until it was done, although previously, at the time of the act, he explained why he did it. It is a common device of criminals to pretend they know nothing of what they were doing when their crime was committed, and such a statement should always be received with great caution."

To return, however, to the subject of epilepsy.

(3) Mental disturbances between fits usually take the form of paroxysmal outbreaks of maniacal violence. These outbreaks are characterised by the extreme suddenness of the onset, and their essential features are in all respects similar to those hitherto described.

(4) Mental derangement in substitution of fits generally assumes the form of chronic insanity, the fits having ceased. Clouston states that he has only seen four or five cases where this took place, and they all occurred at the termination of the reproductive period of life. The mental condition is either that of enfeeblement with or without recurrent mania, or chronic mania.

E. G—, 23, single, a congenital epileptic, drowned her illegitimate child in a river. One of the features of her case was rather singular. Immediately before the occurrence of a seizure she began to undress, but before the act of disrobing was completed she fell to the floor

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convulsed. The epileptic fits continued for the space of three years after admission, then ceased, and for a long period of years none have been observed. Her condition is one of mental enfeeblement, and she devotes her whole time and attention to the care of another epileptic, whose seizures are comparatively frequent.

E. C—, subject to epilepsy from infancy, was admitted when thirty-seven years of age, after being tried for the murder of her brother's child in a state of post-epileptic mania. The seizures lasted for five years after admission. They ceased, and a condition of chronic mania supervened; this has gradually given way to a more quiescent form of mental disorder, characterised by maniacal outbreaks—now, however, of an intermittent character. She is an industrious needlewoman, easily irritated and easily appeased; when talking volubly she repeats words and the termination of sentences—an example of the epileptic echo.

S. T—, a widow with several years' history of epilepsy, killed her two children with a billhook, mutilating them in a shocking manner. No fits have appeared for a number of years, but she exhibits the typical epileptic temperament. She is flighty, restless, querulous, discontented, often talking in a loud and aggrieved tone of voice. She becomes acutely maniacal at intervals with dangerous impulses.

In conclusion, we have satisfaction in noting that the insanity of the great majority of the Broadmoor cases was recognised at or before trial. In the consideration of these cases we have endeavoured to give a general idea of the relationship of epilepsy to crime. To the lay mind a severe epileptic fit is something in the nature of a portent; and even the legal mind is, to a certain extent, permeated with the mystery and gravity of the visitation. The lawyers are ready to concede that a recognised case of epilepsy is not at all times responsible for his actions, but in isolated and somewhat rare forms of the disease they are apt to be more sceptical, and the plea of irresponsibility is not so easily determined. In these cases the medical evidence and the records of medical experience should be stated with prudence and moderation, and received with consideration and respect, for by that path only lies the way to truth, which must be established before justice can prevail and the public safety be assured.

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Discussion

At the meeting of South-Western Division at Broadmoor, October 30th, 1900.

Dr. Nicolson.—It is vexatious that a subject of this vast importance and scope should come before us with such a limited time for discussion. My own feeling in the matter, or in the abundance of matter, which has been submitted to us by Dr. Baker is, that after all we must come and deal with each individual case on its own merits as it comes before us, and as it is submitted to us for our examination, with whatever amount of responsibility may rest upon us for the time being. There can be no doubt that epilepsy has formed a bone of contention to pathologists, and even the best of them have been unable to give us anything in the nature of a satisfactory answer as to what it is. We know it by its results, and we know socially to our cost what mischief it makes in our midst, even if it does not end in a criminal act. But it is more particularly with regard to these criminal cases, I take it, that Dr. Baker has written this paper, which I am glad to have the opportunity of congratulating him upon. First of all we have to be assured that we are dealing really with an epileptic. Is the individual an epileptic, or was he at the time he committed this act? Is he an individual who is reported to have had an epileptic fit, who is believed rightly and properly at some time of his life to have suffered from epilepsy. Or is he an individual who is known to have had convulsions during his teething in childhood, and whose fond mother takes great care this condition shall not be forgotten when he gets into trouble as a youth? We have to take into consideration a great variety of conditions. The question of obliviousness or forgetfulness as to the act committed is one of the most difficult in cases of criminal lunacy. It is a condition of things which my experience has taught me to be very sceptical about in individual cases, as it occurs in every phase of intensity, from complete obliviousness of the act in a very few cases, to confusion and indistinctness of memory in some, and to feigned loss of memory in others. In the great bulk of cases of genuine lunacy there is a good memory of the act and of the reason for its being committed. I am quite sure you will agree with me that Dr. Baker deserves our best thanks for the work he has done, and for submitting it at this meeting.

Dr. Scott.—I quite agree with Dr. Baker's remarks as to the difficulty of getting persons when under examination to remember. Very frequently in examination I have had considerable difficulty before I could arrive at a proper conclusion. I also agree that after they have been among other persons they are put up to all sorts of dodges, by their friends, solicitors, and others also. The plan I generally try is to interview them before they have had any opportunity of being so got at, within about twenty-four hours after the crime, and, after cautioning them, to get their story. In many cases, as has been said by Dr. Baker, the tendency is to jump too readily to the conclusion, where we cannot find a motive ready at hand, that epilepsy was the cause. I was impressed lately in reading a recent number of a French medical journal, in which they referred to a case where a medical man who had led a blameless life became mayor of his town, and suddenly gave way to immoral practices. He gave as his reason that he was studying the morals of his district, and was making experiments. He was examined by a number of medical men, who could find no symptoms of insanity. A doctor took his measurements and found a depression in his skull, and he gave information as to an accident in his youth. They reported to the courts he was suffering from epilepsy. I can find no further evidence than the depression in the skull. You said, sir, that the question of epilepsy hardly ever comes up after sentence of death. I remember one case a number of years ago, tried before a judge who frequently made strong remarks upon medical evidence. A man, well-known to be an epileptic, in a post-epileptic state got on the top of his house, and shot several of his family, injuring two or three, and killing one. The evidence was very strong as to his suffering from epilepsy, and several medical men gave evidence. The Judge, in his summing up, was in favour of the verdict of guilty, and taking no notice of the evidence of the medical men, simply remarked that he had heard the nurse, who seemed an intelligent person, tell them that sometimes in place of the fit such people would have an attack of violence. But as a rule I quite agree with you that where epilepsy can be well established it is accepted by the courts as the probable reason for the committal of the crime.

DR. STEWART.—I think we owe a debt of gratitude to Dr. Baker, because we want to have put before us the whole ground of the foundation of our reasons and thoughts in reference to the importance of epilepsy in connection with crime. I was very much interested in his reference to the influence of alcohol upon the brain. I was very glad to find that the reader of this paper was in accord with myself in regard to the exaggeration—I can use no milder term,—the exaggeration of alcohol as a psychological factor. I do not say that there are not a great many cases of insanity which may be traced to alcohol as the productive agent, but I do say that there are more cases of alcoholism as a result of insanity than of insanity as a result of alcohol. I think it is the mixing up of the two things which we have to contend against. So it is with regard to epilepsy and crime. We find men in the law courts who accept opinions which are not founded upon absolutely reliable data. I have on one or two cases been obliged to ask the judge to defend me from the barrister of my own side, or rather on the side of him who has summoned me; and I think it is too bad when one finds in courts of law one's self confronted with statements, held to be incontrovertible statements, which men like yourself have frequently doubted as being absolutely correct.

The thanks of the meeting were conveyed to Dr. Baker for his paper.

Unilateral Hallucinations; their Relative Frequency, Associations, and Pathology.

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BOTH in physiology and pathology the study of simple, incomplete, and degenerate forms usually sheds a light, sometimes very clear, on more complex and perfect types. For example, such works as those of Spencer, Maudsley, Laycock, and Carpenter show how much the relation of mind to organisation is elucidated by careful observations of the nervous system in the lower orders of the animal kingdom, and of its condition in the abortive and morbid specimens of the human species. In pathology, more particularly, it is not usually where disease has attained full maturity or has advanced to its last stages that we may expect to find its point of origin, mode of progress, or essential nature; rather it is where pathological change is only beginning, in tissue that deviates but little from the healthy standard, or in function that is but slightly disturbed: so in the special pathology of the nervous system much may be learned regarding the more serious diseases by minutely examining and considering the features of the slighter and less striking disorders.

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