—(10) *Ibid.*, p. 44.—(11) Vischer, *Barbed Wire Disease*, p. 57.—(12) *Ibid.*, p. 56.—(13) Slagle, "Development of Occupational Therapy in New York State Hospitals," *State Hosp. Quart.*, August, 1923.—(14) Taylor, *The Principles of Scientific Management.*—(15) *Final Report Industrial Health and Efficiency*, Health of Munition Workers Committee, 1918, pp. 17 to 20 and 121.—(16) Vischer, *Barbed Wire Disease*, p. 39.—(17) Goring, *The English Convict*, p. 197.—(18) *The History of the Prison Psychoses*, p. 3.—(19) East, "Observations on Exhibitionism," *Lancet*, August, 1924.—(20) Sullivan, "Alcoholism in Relation to Insanity," *Brit. Med. Journ.*, March, 1924.—(21) Sullivan, *Crime and Insanity*, p. 4.—(22) East, "Observations on Exhibitionism," *Lancet*, August, 1924.—(23) Kraepelin, *Manic-Depressive Insanity and Paranoia*, p. 267.—(24) Wälder, *Internat. Journ. of Psy.-Anal.*, July, 1925.—(25) Buzzard, "Traumatic Neurasthenia," *Lancet*, December, 1923.—(26) Watson Williams, "Nasal, Aural and Other Focal Sepsis as a Cause of Neurasthenia and Insanity," *Brit. Med. Journ.*, July, 1925, also *Sup.* 11th *Ann. Rep. of the Bd. of Contr.*—(27) *Industrial Health and Efficiency*, Final Report, p. 51.

Child Murder and Insanity. By J. STANLEY HOPWOOD, M.B., B.S. Lond., Junior Deputy Medical Superintendent, The State Criminal Lunatic Asylum, Broadmoor.

CHILDBIRTH and lactation entail a severe stress on the female sex, and, under certain circumstances, are liable to cause insanity, during the course of which attempts at infanticide and suicide are common. For this reason the insanities connected with child-bearing and lactation have a definite medico-legal aspect. In the past very little has been written on this subject, though infanticide is by no means uncommon, and cases of child murder account for a large percentage of the population of the female division of the State Criminal Lunatic Asylum at Broadmoor. Possibly a study of some of these cases may not be lacking in interest.

Child murder may be divided into two classes: (1) Those cases occurring before the end of the lactation period, and (2) those cases occurring after that period.

This paper will only attempt to deal with the first of these classes, and will be confined to—

(*a*) Cases where a mother has killed her own child and (*b*) where the murdered child was not over one year of age, except in instances where lactation had been prolonged beyond that period, and (*c*) cases in which a mother, recently confined or nursing an infant, has murdered, not that child, but an older one, and again (*d*) cases where a mother has murdered more than one child, the youngest murdered being under one year of age.

An examination has been made of the Broadmoor records for a period of 25 years from January 1, 1900, to December 31, 1924, and during that period, out of a total number of 388 female receptions,

166 (or a percentage of 42·8) had been charged with child murder of the class with which this paper deals.

Troup (1) states that "in the twenty-two years from 1901–1922, out of 1,445 persons committed for trial on charges of murder, 585 were convicted and 517 were found to be insane, either before trial or by special verdict of the jury, and of those convicted, 13 were found insane on the Home Office inquiry." Although this paper covers a slightly longer period, it can be shown that cases of child murder by insane nursing mothers account for over 25% of the total number of murders committed by persons who cannot be considered to be responsible for their actions.

The insanities connected with childbirth may be divided into three classes:

(1) Insanity of pregnancy; (2) puerperal insanity; (3) lactational insanity.

It is not proposed to deal with the first of these classes. Pregnancy is often accompanied by severe mental depression, which at times develops into melancholia, and this condition may be accompanied by ideas of suicide and homicide. The crime, in these cases, is usually committed during the later months of pregnancy. These cases are not common, and an account of them is given by Baker in an article entitled "Female Criminal Lunatics: a Sketch"(2), in which he states that from the opening of the asylum in 1864 to the time of writing his paper in 1901 there were only 11 cases.

The distinction between puerperal insanity and lactational insanity is purely an arbitrary one, and depends on the length of time that has elapsed between the birth of the child and the onset of the insanity. Infanticide is not common in puerperal insanity, occurring soon after the confinement; at this time the insanity is usually of the nature of mania, and deliberate homicidal acts are not possible in the maniacal state. Further, it develops at a time when the mother is under the almost continuous observation of a nurse or relative, and steps can be quickly taken to safeguard the mother and child. When the insanity develops later in the puerperal period, it usually takes the form of melancholia with delusions of unworthiness, and in these cases ideas of suicide and homicide are more common.

Many mothers, who for various reasons are totally unfitted to do so, undertake the nursing of their children, and their systems are unable to withstand the severe strain which lactation entails, with the result that an attack of insanity develops. As this condition is in the nature of an exhaustion psychosis the insanity usually develops during the later months of lactation, or even after the weaning of the child has taken place. It is in cases of

lactational insanity that child murder occurs most frequently. In this condition the onset is more insidious than in puerperal insanity, and the symptoms are usually less pronounced, and although the relatives recognize a change in the patient, they often fail to realize that it is the start of a serious mental condition until a tragedy takes place which could have been avoided had medical advice been sought earlier.

Forms of Insanity.

With the exception of 3 cases of epileptic insanity, 2 of alcoholic insanity, and 6 of congenital weakmindedness, the cases of child murder received at Broadmoor can be classified under three forms of insanity.

(1) Exhaustion psychoses, 117 cases.
(2) Manic-depressive insanity, 22 cases.
(3) Dementia præcox, 16 cases.

Exhaustion psychoses.—The large majority of the cases take this form. Such patients are restless and sleep badly, often take very little or refuse all food, and are usually anæmic and in a poor state of health. Confusion of ideas is marked, memory is frequently disordered, and disorientation is not an uncommon feature. Many are depressed, but not unduly so, others show an amazing lack of emotion. Some are stuporose. Many fail to realize the gravity of their crime. Delusions are common, and are generally expressive of self-depreciation. Hallucinations, usually of sight and hearing, are also present in some cases. As a rule they improve rapidly, and a large number of them are discharged recovered; a few, however, pass into a quiet dementia. In some cases the attack is of such short duration that by the time they reach the asylum after their trial the acute symptoms have subsided, and they may show only a slight depression, or perhaps not even that.

A. B—, aged 32; married. Murder of child, aged 1 month, by throwing it out of a window. An aunt insane. A short, stolid-looking woman with somewhat expressionless features. One of a family of three. Left school at 12 and went into service as a housemaid. When 18 years old she received a shock through hearing of the death of her brother, and states she then had a fit (? hysterical). She married when 22 years of age, and has had 4 children, of whom two are alive and one was stillborn. The youngest she killed. All her labours were severe, and instruments were used in each case. She has always had good health and has been temperate. She usually slept well, but frequently had bad dreams (? nightmares). Her disposition has always been quiet and reserved. During the last three months of her lastest pregnancy this reserve deepened into despondency, and she took an anxious view of the result of her approaching confinement. She was prematurely confined of a 7½ months child. Although she seemed fond of the child, her conduct and demeanour were strange, there was an exaggeration of the symptoms of the period of pregnancy. She complained of feeling funny in the head, memory was impaired, there was no sequence of ideas; and she used to stare fixedly at one spot and paid little or no attention to what was said to her. She ate sparingly and the child did not seem to get enough milk, so other food had to be

given. She threw the child out of the window. According to her own statement this was done without premeditation. At the time of the murder, she said "I threw the child out of the window because the woman would not come to wash it." She was always worrying about the child being dirty although it was quite clean. On reception she showed marked confusion and some mental hebetude; she quite failed to realize the heinous nature of her crime. She was slightly depressed and her memory was impaired. Her condition gradually improved, and she became cheerful, rational and tranquil. She remained in this state till she was discharged recovered.

C. D—, aged 40; married. Murder of two children, aged 3 months and 2½ years respectively, by drowning. A paternal uncle insane. A slightly built woman, whose weary expression denoted that she had been a toiling nursing mother during her married life. She had an illegitimate child when 16, and the father married her a few years later. She has had 11 children, 6 of whom are dead. The two youngest she drowned in a tub. The last labour was a difficult one, and the milk suddenly left her when the child was 7 weeks old. Both the youngest suffered from a form of skin disease, and this was a source of intense worry to her. One day she was found by the police on the towing-path with her two children, and she told them that she had come to drown them. She was taken home, but about six weeks later she drowned the children in a tub and then put them to bed uptairs and went for a doctor. She was dazed when taken to the police-station, but began to cry about three hours later. On reception into prison she was confused and depressed. She had the delusion that she was shunned by the neighbours on account of the children's skin disease, and saw no means of ending the children's misery except by killing them. By the time of her arrival at the asylum her symptoms had, to a great extent, cleared up. She was somewhat depressed, and broke down on the subject of her children. Her memory was good for recent and remote events and the delusions had left her. She gave a clear account of her crime, but had no recollection of placing the children in bed afterwards. She gradually improved, but remained somewhat melancholic for about a year. After that time she became bright and cheerful and continued so till her discharge from the asylum.

Manic-depressive insanity.—The cases of this form of insanity are usually in the depressive phase, homicidal impulse being uncommon in the manic phase. They show marked emotion, are extremely depressed and dejected, and generally agitated. Memory, as a rule, is unimpaired, but occasionally amnesia is present. There is marked slowness of the cerebral functions. They are in poor bodily health and look ill. Constipation is a frequent symptom. They sleep but little, and are often disturbed by dreams of a terrifying character. Delusions of unworthiness are sometimes present, and they may imagine they hear voices. These voices tend to confirm their delusions and so increase their abject misery.

E. F—, aged 33; married. Murdered her child, aged 8 months, by drowning. A thin-featured melancholic-looking woman with a downcast expression. Married at age of 26, and has had 3 children. The first labour was difficult, but the other two were normal. She was anæmic after the last confinement, and she had to discontinue nursing the child after three months as she became so weak. She suffered from acute depression and became a prey to gloomy apprehensions, and thought that the neighbours looked down on her and called her names. She developed the idea that the carmen on the street shouted out that her child was the devil and that mother and child were going to hell. She drowned the child in a tub of water and then gave information to the neighbours. The child was well formed and healthy. She did not attempt suicide at the time, but two days previously she had sent a child to buy salts of lemon, but the chemist refused to sell it. After drowning the baby she went to a neighbour and said "I have drowned my baby,

go and take it out." She then met a policeman and told him the same story. During her trial her demeanour was that of extreme dejection. She sat with bowed head and manifested no interest in the proceedings. On reception she was extremely dejected and melancholic, she gave a fairly coherent account of her past life, and was very emotional when discussing the details of her crime. After remaining melancholic for some time she passed into a maniacal state, and these two states alternated for some years till she became demented. She is now demented, but restless and spiteful.

Dementia præcox.—Cases may belong to any of the different types of this form of insanity, but, as alterations of conduct are frequently one of the first signs of this disorder, it often happens that these cases are received into the asylum before the mental symptoms are well marked, and it is impossible to make a definite diagnosis until some time later. Kraepelin (3) states "that very sudden impulses not explicable to the patient herself interrupt the inner connection of psychic events." These impulsive acts are often an early manifestation of the condition, and may be homicide or other crime of a serious nature. Amnesia is very uncommon in this condition, but the patient, although aware of what she is doing, has a feeling that there is some force compelling her to act as she does. She feels that she is being driven by some power over which she has no control. Mott (4) explains why, in some cases, the onset of dementia præcox is delayed till the period of child-bearing.

G. H—, aged 36; married. Murdered her child, aged 9 weeks, by drowning. No family history is available. In prison she was reticent and deluded, and exhibited hallucinations of hearing. She made impulsive attacks on officers. On reception into the asylum her cerebral faculties were considerably in abeyance —she showed slowness and hesitation. She gave monosyllabic answers to questions and no information could be gathered from her. She would take very little food, and usually had to be fed. She became resistive and negativistic, impulsive and quarrelsome, and was wet and dirty in her habits. At times she passed into a semi-stuporose condition, when she would take no interest in her surroundings, but would sit for hours in one position. At other times she was impulsive and would strike out without provocation. The dementia gradually became more marked and she died in the asylum nine years after reception.

Disposal.

Of the 166 cases admitted, 94 have been discharged recovered, 10 have died, 4 have been transferred to county mental hospitals, and 58 are still in this institution. Five of the present patients have, in the past, been conditionally discharged, but owing to relapses have been readmitted. It is probable that some of the present patients will, at a future date, be sufficiently recovered to be discharged; 15 of them have only been in the institution for a short period.

Of the 94 cases that have been discharged from the asylum, in 13 of them the attack of insanity was of such a transitory nature

that by the time their trial was over and they reached the asylum the attack had subsided, and they were sane on reception and remained sane. The prison records of these cases show that there had been a definite attack of insanity, and that at the time of their crime they were not responsible for their actions. In five cases the attack had almost subsided, and the only sign was a slight depression, which rapidly disappeared. It may be argued that as these persons were sane they should not have been sent to an asylum, or if sent there, they should not have been detained. Troup (5) has definitely laid down that "much more than a mere certificate of sanity is required before a person who has committed murder and has been ordered to be detained 'during His Majesty's pleasure' can be turned loose again on society." Fifty-four were definitely insane on reception, but recovered, without any relapse, and 22, who were definitely insane on reception, suffered one or more relapses before their final recovery and discharg.

Procedure Leading to Reception.

At their trial, 43 were found to be insane on arraignment and unfit to plead; these were ordered to be detained during His Majesty's pleasure; 120 cases were found to be guilty but insane at the time of committing the act, and were also ordered to be detained during His Majesty's pleasure. One case was committed for trial by order of a Coroner's Court, but was sent direct to the asylum. One case was remanded *sine die* and removed to the asylum, and one case was conveyed to the asylum by order of the Home Secretary. These three cases show that, although there are other methods than arraignment before or trial by jury for committing criminal lunatics into safe custody, yet these methods are seldom used by the authorities, who much prefer that in all cases, unless there are strong indications to the contrary, a prisoner should be found to be insane by a jury in open court.

Age.

The greatest number of cases occurred between the ages of 26–30, but a large number also occurred between the ages of 31–35 and 36–40. Infanticide with insanity was uncommon under 21 and over 40. The youngest case was aged 18 and the oldest 46.

Under 21 . .	5	31–35 . . .	39
21–25 . . .	26	36–40 . . .	37
26–30 . . .	50	Over 40 . . .	9

The age of onset of the attack appears to have a slight but distinct bearing on the prognosis. All the cases under 21 years of age

https://doi.org/10.1192/bjp.73.300.95 Published online by Cambridge University Press

recovered, and were discharged, and the percentage gradually decreased as the age increased. The decrease is very slight after the age of 35. All that can be said with certainty is that, in a recoverable form of insanity, an age of under 30 is a minor point in favour of a good prognosis. Of those who recovered the ages were:

Under 21	5 (100%)	31–35	19 (48·7%)
21–25	19 (73%)	36–40	17 (46%)
26–30	30 (60%)	Over 40	4 (44·4%)

Civil State.

By far the greater number of receptions were married women—married, 128; single, 33; widowed, 5.

These figures do not agree with the statements that are to be found in most text-books to the effect that illegitimacy is a potent factor in the causation of the insanities of childbirth, but it is only fair to take into consideration that murders committed by unmarried mothers often take place at the time of the confinement, or very shortly after, and that at the trial the charge is frequently reduced to one of concealment of birth, and the question of the sanity or otherwise of the prisoner is not raised by the defence.

It is a noticeable fact that practically all the cases belong to the working or lower middle classes. This is not surprising, as in these classes the strain of bringing up a family is far greater than in those of a higher social standing. They are often faced with financial difficulties, and are therefore unable to obtain domestic help; this means that they have to resume the duties of looking after their children and the house before they are in a fit state to do so. They are apt to neglect themselves, and are often unable to obtain sufficient nourishment, and as their work must necessarily take up the greater part of the day they have little time for exercise in the fresh air and other relaxations. In this class it is the rule, rather than the exception, to nurse the baby, and lactation is often unduly prolonged with the idea of preventing conception.

Infanticide Commoner in Multiparæ.

In 122 cases the patients were multiparæ, and, with one exception, had not attempted violence on their children until the onset of the attack of insanity which caused them to commit a criminal act, when in some cases they killed more than one child. As the commonest insanity connected with childbirth is an exhaustion psychosis, it is to be expected that patients of an unstable temperament would feel the strain of the puerperium and lactation more acutely in a later than in their first confinement, and thus the

marked exhaustion, with attendant mental breakdown, is more likely to occur in multiparæ than in primiparæ.

In 44 cases the murder was related to the first confinement. Maurice Craig (6) has pointed out that first pregnancies, in neurotic persons over 32 years of age, are always accompanied by risk. Of these 44 cases, no less than 17 gave birth to their first child when over 32 years of age. Of the remaining 27 cases, 10 were legitimate and 17 illegitimate.

It may therefore be considered that insanity of childbirth with murder is of rare occurrence in young married primiparæ.

Number of Attacks.

Whether the patient is suffering from her first attack of insanity or not is an extremely important factor in prognosis.

In 101 cases the patient had never had a previous attack, and 73 (or 72·27%) of these cases have been discharged recovered. In the remaining 65 cases recovery has only taken place in 21 (or 32·3%).

Previous attacks of insanity thus have a very definite bearing on the prognosis, and the chance of recovery is much lessened in a patient who has been previously insane.

Heredity.

Cole (7) considers that insane heredity has a *rôle* in 40% of cases of the insanity of childbirth, and that dementia præcox invariably originates from a neuropathic stock. Maurice Craig (8) places neurotic inheritance as an important factor in the ætiology of the puerperal insanities, and finds that there is a defective heredity in a very large proportion of cases of dementia præcox.

In many of the cases admitted to Broadmoor it is not easy to obtain a reliable history of their antecedents owing to the natural reluctance of both patients and relatives to admit a defective or insane heredity, and it is often impossible to verify a suspicion of neuropathic taint in the family. Of the 166 cases, a family history of insanity has been admitted in 53 (or roughly 32%).

A direct family history of insanity was present in 19 cases, a collateral in 31 cases, and a history of insanity in the siblings in 21 cases. Of the 53 cases with a family history of insanity 28 have been discharged recovered.

Methods Employed for Perpetration of Crime.

The methods employed by the mothers for the killing of their children were various, but in most cases they were simple and

impetuous, and lacked the previous planning which is sometimes shown by a murderer. In the large majority of cases no attempt was made to conceal the crime or to evade the consequences. In 14 cases the patient killed two or more children.

In 132 cases one of the following three methods was employed: drowning, of which there were 67 cases, cutting the throat, 45 cases, or strangulation, 20 cases. The remaining methods were as follows: Poison, suffocation by coal-gas, suffocation by ammonia fumes, smothering, throwing into a dust-bin, throwing out of a window, jumping out of a window with the child, throwing out of a railway carriage, stabbing, violence on head, hitting with a hatchet, placing on fire, mutilating, setting on fire with paraffin. The last-mentioned case is interesting and unusual. The patient, a weak-minded woman who had previously been in an asylum, gave false evidence at the inquest, and stated that she had placed the baby, in its crib, near the fire, and that a live cinder had fallen out and set fire to the baby's clothes. A verdict of accidental death was returned. The true facts of the case were discovered by the mother-in-law, whose suspicions were aroused by the mother's apathy and strange behaviour, and also by the smell of paraffin on the baby's clothes. She questioned her daughter-in-law and extracted a confession.

Suicide.

Suicidal ideas are common in these cases. Out of the 166 cases admitted, suicidal ideas were present in 98 cases, and of these 59 had actually attempted to commit suicide, the remainder having only threatened or talked about it. This relation between suicide and homicide is instructive, as it shows that in a large number of cases it is probable that the original idea is suicide and not murder. Sullivan (9) has emphasized the fact that—

"In most cases of murder in manic-depressive insanity the homicidal tendency is associated with a tendency to suicide, and frequently seems, indeed, to be a transformation or extension of the latter impulse. A similar relation between the two impulses is also very common in senility and alcoholism; but in these latter conditions it appears to be of a somewhat different character to what is observed in melancholia. The distinction may be roughly expressed by saying that the destructive impulse in the senile and the alcoholic is, in some sort, a protest, in the melancholic it is an acceptance, so that in the former the impulse is homicidal-suicidal, and in the latter it is suicidal-homicidal." A few lines further on he states that "What has been said above with regard to homicidal crime in the melancholic forms or phases of manic-depressive insanity applies equally to the cases of murder associated with the exhaustion psychoses, which find their most characteristic and most frequent expression in the murder of their children by nursing mothers."

This statement is well borne out by the cases under review. In exhaustion psychosis and manic-depressive insanity it is seldom found that the killing has been committed with any idea of revenge, but rather because the mother has considered that it is the kindest, in fact the only thing that she can do to the child.

In many cases the patient is happily married, and is a good wife and fond mother, but she is weighed down during the strain of lactation, by domestic and other worries, real or imaginary, connected with the child. Ideas of suicide develop as she

imagines that she would be better dead; these ideas are thrown off, only to return in greater force, till at last they become a delusion. She feels that if she takes her own life she cannot leave the child behind to be neglected by other people and perhaps starved. She decides that the only possible thing to do is to take the child with her and argues that it will be happier in " Heaven." It frequently happens that after the deed has been committed a weight seems to be lifted from the mother, and she experiences, at first, a sense of relief that the child has been killed. This relief is short-lived, and soon gives way to a feeling of intense grief and sorrow. Severe vertex headache with a feeling of weight or oppression is a frequent symptom in these cases.

Occasionally a patient will give as a reason for the deed that she wanted to get hanged. In these cases the prevailing idea is a wish to die, but for some reason she shrinks from committing suicide and resorts to murder as a means to the same end.

Of the 59 cases of attempted suicide, 37 (or 62·7%) have been discharged as recovered.

In dementia præcox the suicidal impulse is very uncommon, only 2 cases in this series showed any evidence of an impulse to commit suicide.

Alcohol.

Alcohol appears to have but little importance in the causation of the insanities connected with infanticide. It is a noticeable fact that the large majority of patients who have been sent to Broadmoor on the charge of infanticide are not of the type that indulge in excessive alcohol, but, as has been previously stated, most of them are good wives and mothers who are fond of their homes and families.

A history of previous alcoholism was obtained in 18 cases, but in only 1 case was the patient under the influence of alcohol at the time of the act.

I. J—, aged 38; married. Murdered her child aged 4½ months by cutting its throat. A strong featured, fresh-coloured woman with a healthy family history. Lived happily with her first husband till his death. She had eight children by him. Thirteen months after the death of her first husband she married again. Her second husband appears to have been a drunkard, and she lived unhappily with him; he squandered the money and treated her unkindly. One child was born and the labour was a difficult one. The day after the birth the husband came in drunk and began to illtreat one of the step-daughters. The mother rose from her sick-bed and interfered; this caused some fever and suppression of lochia, but the milk did not cease. She recovered in due time and was able to get about. A week before the tragedy she took part in a drunken orgy to celebrate the return of a relative from the war and drank beer steadily for four days. She returned home in a state bordering on D.Ts., became worse, had hallucinations of sight, saw devils, prayed long and loudly, and in a delirious paroxysm laid the child on the hearth-rug and cut its throat. She remembered nothing of the crime, her

first recollection being of the hospital ward to which she was conveyed. By the time she reached the asylum the attack had subsided and she remained sane till her discharge.

In none of the cases under review has the causation of the insanity been connected with drug-taking.

Epilepsy.

In recent years much prominence has been given to epilepsy as a defence in cases of murder. Undoubtedly certain murders are committed during a state of epileptic automatism, but a defence of epilepsy, in the hope of proving insanity, is often brought forward when there is no true evidence of the prisoner ever having suffered from the disease.

Sullivan (10) has pointed out that the percentage of epileptics at Broadmoor is no greater than that among the ordinary asylum population of England and Wales: Broadmoor, females 5%; ordinary asylum population, females 5·6%. In this series of cases a history of epilepsy was present in 8 (4·8%), which is slightly less than that found throughout the whole insane population, and in only 6 cases can a family history of epilepsy be traced.

Three of the cases are undoubtedly the result of epileptic automatism, and exhibit all the features that are diagnostic of that condition. In each case the history of epilepsy is authentic, and the attacks have continued since reception into the asylum and in each case the murder has been a continuation, in an altered form, of the work on which the patient was engaged at the time, carrying on her task as though nothing unusual had happened, and shown total amnesia of the crime.

In one of the cases the mother placed the baby on the fire and the kettle in the cradle, and in another case the mother strangled her baby with a piece of chiffon which she was wearing round her own neck; she then placed the baby in the bed and continued her work. It was not till some time later, when, on the return of her husband from work, she went upstairs to fetch the baby that her deed was discovered.

Amenorrhœa.

In the few cases where amenorrhœa has persisted there has been no improvement in, but rather a steady deterioration of the mental state. An early return of the menses is certainly a point in favour of a good prognosis.

It has been noticed that patients who state that they had a menstrual period whilst in prison awaiting trial often have a period of amenorrhœa after reception into the asylum.

Amnesia.

From a medico-legal standpoint, the question as to whether there is total or partial amnesia is of the highest importance. If it is proved that the prisoner has no recollection of the deed, then she cannot be held responsible, but must be considered to have been insane at the time of the act. It is natural that any murderer should profess total amnesia as a defence, and if no alibi or better defence can be brought forward, then the defence of amnesia is a favourite one.

Because amnesia is often simulated it is unfair to deny its existence on that account, but rather should it lead those whose duty it is to examine the mental state of prisoners to a fuller realization of its importance, and cause them to make more exhaustive inquiries in order to satisfy themselves as to the genuineness or otherwise of the amnesia.

In differentiating between true and simulated amnesia points of importance in arriving at a diagnosis are:

1. In most cases of true amnesia there is a history of neuropathic inheritance.

2. A history of head injury or chronic alcoholism is often elicited.

3. Any previous loss of memory, partial or complete, is to be ascertained.

4. The deed is often committed without criminal motive.

5. A patient suffering from amnesia makes no deliberate attempt to escape after the deed has been committed.

6. Great importance should be placed on the beginning and end of the amnesic state. In true amnesia the patient cannot sharply define the beginning or end of the state. Simulated amnesia is to be suspected when the patient can accurately state at what moment her memory left her or returned.

7. In partial amnesia, ideas which are accompanied by marked emotion are remembered when less emotional ideas are forgotten. A patient who remembers leaving the house after the murder but has no memory of the actual murder is probably malingering a state of amnesia.

8. A sudden return of the memory of details of the act is most unlikely in true amnesia, and is highly suggestive of a simulated loss of memory.

In the series of cases under review, amnesia was present in 60 or 36·1%. Fifty-one cases gave evidence of complete amnesia, and of these 35 have been discharged recovered, 3 have died, and 2 have been transferred to other asylums. Of the 11 which remain, 6 have only been in the asylum for a comparatively

short time, and may eventually receive their discharge. Nine suffered from partial amnesia, and of these 6 have been discharged. Nineteen attempted suicide at the time of the infanticide. It is very uncommon to find simulated amnesia in a patient received into the asylum on the charge of infanticide.

Amnesia is commonest in cases of exhaustion psychosis; it is found, but to a much less degree, in manic-depressive insanity, but it rarely occurs in dementia præcox. A case where there are few signs of mental unsoundness, but where amnesia is present, is unlikely to be one of dementia præcox.

Amnesia of the crime, therefore, can be considered as a point, although perhaps a minor one, in favour of a good prognosis.

Summary.

1. Infanticide is commoner in insanity during lactation than in puerperal insanity or the insanity of pregnancy.

2. Exhaustion psychosis is the most frequent form of insanity, and accounts for about 75·5% of the cases.

3. An age of under 30 is a point in favour of a good prognosis.

4. Insanity and subsequent infanticide is much more frequent in multiparæ than in primiparæ. The murder of her child by a young married primipara is of very rare occurrence.

5. Previous attacks of insanity have a definite bearing on the prognosis, the chances of recovery being much lessened when there has been a previous attack.

6. Little can be said with regard to heredity, owing to the difficulty of obtaining a reliable history.

7. Suicidal ideas are common, being present in about 60% of the cases. In many cases the primary idea is suicide, and the homicide is secondary. The presence of the suicidal impulse is not a contra-indication of a good prognosis.

8. Alcohol, as a causative factor, has but little importance in the insanities connected with childbirth and infanticide.

9. Epilepsy is not common in these cases, having no greater percentage than obtains in the whole insane population.

10. Amenorrhœa is a frequent symptom, and usually persists for some months. An early return of the menses is a point in favour of ultimate recovery.

11. Amnesia is frequently present. It is commonest in the exhaustion psychoses, and provided that it is not permanent, it is a point in favour of a good prognosis. Amnesia is of very rare occurrence in dementia præcox. Simulated amnesia is seldom found in the insanities of childbirth with infanticide.

In conclusion my thanks are due to the Home Office authorities for permission to publish this paper, and to Dr. H. P. Foulerton, the Medical Superintendent of the State Criminal Lunatic Asylum at Broadmoor, for allowing me access to the Broadmoor records.

References.—(1) Troup, Sir Edward, The Home Office.—(2) Baker, Sir John, "Female Criminal Lunatics: A Sketch," *Journ. Ment. Sci.*, January, 1902.—(3) Kraepelin, Prof. E., *Lehrb. der Psychiat.*—(4) Mott, Sir Frederick, *Brit. Med. Journ.*, October 24, 1925.—(5) Troup, Sir Edward, *op. cit.*—(6) Craig, Sir Maurice, *Psychological Medicine.*—(7) Cole, R. H., *Mental Diseases.*—(8) Craig, Sir Maurice, *op. cit.*—(9) Sullivan, W. C., *Crime and Insanity.*—(10) *Idem, ibid.*

Clinical Notes and Cases.

A Note on the Wassermann Reaction in the Blood-Serum of Male Admissions to Hanwell Mental Hospital.

By G. A. Lilly, *M.C.*, M.A., M.D., D.P.M., Deputy Medical Superintendent of Banstead Mental Hospital; and E. L. Hopkins, *M.C.*, M.R.C.S., L.R.C.P., D.P.H., D.P.M., Assistant Medical Officer, Hanwell Mental Hospital.

In a series of 412 cases admitted between December 20, 1923, and December 29, 1925, the blood-serum was tested, and of these, 105, or 25·48%, were found to be positive. This shows the distinctly high incidence of syphilis of 1 in every 4 admissions.

The diagnoses on admission of the 105 positive sera cases, compared with the diagnosis on admission of the total admissions, were as follows:

Diagnosis on admission.	Total cases.	Positive sera.	Diagnosis on admission.	Total cases.	Positive sera.
General paralysis	54	50	Dementia præcox	75	3
Delusional insanity	46	8	Epilepsy	24	3
Confusional insanity	73	21	Moral insanity	1	*Nil*
Melancholia	51	4	Alternating insanity	1	,,
Senile dementia	44	7	Volitional insanity	1	,,
Gross brain lesion	12	3	Congenital imbecility	5	,,
Mania	25	6			
			Total	412	105

A consideration of these figures shows several interesting features:

(i) On admission, 55 cases, although actively syphilitic, did not present signs suggestive of general paralysis. Later a certain number developed sufficiently to be recognized as general paralysis—a recognition hastened by the fact that their sera were known to be positive.