No. 4. July, 1911. Vol. IV.

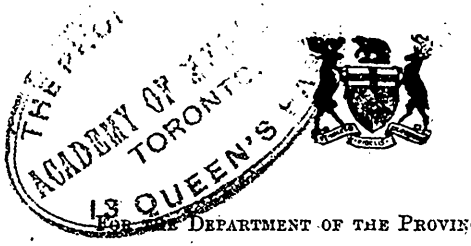
Bulletin

OF THE

Ontario Hospitals for the Insane

A Journal Devoted to the interests of Psychiatry in Ontario

Printed by Order of the Legislative Assembly.



FOR THE DEPARTMENT OF THE PROVINCIAL SECRETARY.

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.

No. 4. July, 1911. Vol. IV.

Bulletin

OF THE

Ontario Hospitals for the Insane

A Journal Devoted
to the interests of
Psychiatry in Ontario

Printed by Order of the Legislative Assembly

FOR THE DEPARTMENT OF THE PROVINCIAL SECRETARY.

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.

TABLE OF CONTENTS.

The Bulletin

OF THE

Ontario Hospitals for the Insane

A Journal Devoted to the Interests of Psychiatry in Ontario.

VISIT TO A MODERN ENGLISH ASYLUM.

DR. HARVEY CLARE.

Assistant Medical Superintendent, Hospital for Insane, Toronto, Ontario.

When Dr. Young and I were visiting Institutions in Europe we found many features that pleased us, yet in some ways we thought our methods better than any we saw while away from home. As Ontario has been for some time seriously considering a Psychiatric Clinic or "Admission Hospital" we were naturally most interested in those hospitals, wards and convalescent cottages where acute and convalescent cases are treated. Dr. Young in the last BULLETIN referred to Dr. Carswell's observation wards in Glasgow, and to the admission hospital at Larbert; also to several other institutions. Just at present when Toronto is thinking of a new hospital for insane a few words concerning what we considered the most modern institution that we saw, viz., Long Grove, might be interesting. We had been informed by many before leaving home that Claybury was the show place of England but when we went there and met Dr. Jones, the Superintendent, and explained to him that we had only a short time for observation he at once told us that we had come to the wrong place as Long Grove was the last word in asylum architecture. We admired Claybury and found it far ahead of our places in architectural com-

pleteness and equipment, but when we went to Long Grove, and met Dr. Bond, and learned of his three years' work in that institution we were surprised beyond measure by the compactness, the completeness and the simplicity of the institution.

Dr. Bond is yet a young man of about 40 and after working his way up through the ranks he has been a superintendent of a London County Council Institution for about 7 years. He is energetic, observant and seemed to know every case in the place, and to be interested in every detail. His own personal observations were found in all clinical records; he could discuss intelligently the different classifications of insanity, and he knew how many pounds of milk his dairy herd had to furnish each day for each patient. He was interested in every department as farm, garden, bakery, sewing room, etc. He encouraged amusements and played an instrument in both a band and orchestra, and in short he seemed to have his finger on everything about the place.

When talking with him we inquired as to how the people in England had been educated to build and equip so many magnificent places for the care of the mentally afflicted, and he said that the System of Asylums managed by the London County Council had been the result of a gradual development covering a period of many years. He also gave us the impression that as Britain is the leading Empire of the world she must lead the world in caring for her helpless and unfortunate. We learned that in London where the population is rapidly increasing the Asylums Department have estimates of the probable number of insane for many years to come, and they are all the time preparing for the increase. During the last 12 years the London County Council have built and equipped four new institutions accommodating about 6,500 patients. All of these are entirely new, complete and up to date. This to us seemed appropriate information for our own country. In Ontario the asylum population is rapidly increasing and 20 years from to-day we will probably have twice as many people cared for in our

Insane Hospitals as we have to-day. Surely we should take a leaf from the book of our Mother country and provide for this enormous increase.

But to come back to Long Grove; it was opened in 1907 and was intended to accommodate about 2,100 patients drawn from the City of London. The Committee some years ago secured a large estate about 25 miles from the city and on this estate are located 4 large asylums. Each has its own Medical Superintendent and we were informed that a very healthy rivalry exists between the staffs of the four institutions, and this in itself has a good effect on the work done in each of them. It pleased us particularly to examine the facilities at Long Grove for the classification of patients. The male and female sides of the institution are alike and for the sake of brevity we will describe only one side with an accommodation for about 1,050 patients.

1st.—Two Infirmary wards known as Infirmary ward No. 1 and Infirmary ward No. 2, each two stories high and together making room for 168 men. In these wards are kept the men who require special nursing. These two wards are in charge of female nurses and although many recently admitted cases come from the admission cottages still the nurses claimed that they have very little difficulty in managing these new cases.

2nd.—Just beyond the Infirmary wards are located three acute wards known as Acute wards No. 1, No. 2 and No. 3. These accommodate 227 patients who are too much disturbed to be in the Infirmary wards. In these wards are male attendants and the patients are distributed between the three wards according to their propensities and the degree of their excitement. Acute wards No. 1 and No. 2 are each two-storey buildings, but No. 3 is all on the ground floor, and in this ward the patients that they consider most dangerous were intended to be confined, but the Superintendent informed me that he had found that he could use this ward to better advantage by placing in it some old chronic cases of the demented type who

were not able to walk up and down stairs. He placed them in this ward because he had found that he did not require three wards for disturbed cases, and these old men who are now in this ward may reach the dining room and verandahs with very little walking.

3rd.—Beyond the acute wards are two for Epileptics accommodating 120 patients. This seemed strange as only half a mile away is a large colony for epileptics but those at Long Grove are said to be unsuited for Colony Life. The Epileptic buildings are only one storey high and no patient is ever exposed to the danger of falling down stairs.

Besides these wards, all of which are connected by canopied walks, they have in different parts of the grounds several cottages and villas, viz.:

1st.—Two Admission Cottages, one for men accommodating 50 patients and one for women of the same size. These they call the Hospital Villas. All the patients are brought to these cottages and examined at once. Some remain there for considerable time, and others are at once transferred to more suitable places.

2nd.—Two Convalescent Cottages each with 25 beds. Many quick recovery cases go directly from the Admission Cottage to this home-like place and never at any time even see the asylum proper. These buildings are built after the bungalow style and are very pretty. They are provided with tennis courts, bowling greens, croquet lawns and the rooms are furnished well and beautified by flowers, fancy work, pictures, etc.

3rd.—Two Cottages for 120 quiet, chronic parole patients.

4th.—Two Cottages for 130 parole working patients.

5th.—Two other buildings for chronic working patients who could not be given parole. Each of these buildings provides accommodation for about 194 men and the same number of women.

When summed up we see that the patients are classified or arranged as follows:

	Men.	Women.
Admission Hospital	50	50
Convalescent Villa	25	25
Infirmary Ward No. 1	68	68
No. 2	100	100
Acute Ward No. 1	88	88
No. 2	90	90
No. 3	49	49
Epileptic Ward No. 1	60	60
No. 2	60	60
Chronic Villa for old parole patients.	60	60
Chronic working patients	194	194
Parole working patients	65	65
Laundry patients	..	120
Working patients	120	..
	1,029	1,029

It is an easy matter to decide in which ward or building any patient should be located. He comes into the Admission Cottage and is carefully examined by the physician before he is put to bed. His period of residence in this cottage varies and when he leaves it he may go to the Convalescent Villa if his recovery is rapid, or he may go to one of the Infirmary wards if he requires careful nursing. Remember there were two Infirmary wards, both very close to the physician's office and each in charge of a trained female nurse. In the one were kept clean, tidy, quiet patients, and in the other those that were a little more disturbed. Practically all patients in these wards were in bed and excepting the Admission Cottage there were very few other patients confined to bed in any other part of the building. Now if a patient is restless or disturbed when leaving the Admission Cottage he can go to one of the two wards reserved for disturbed acute cases. And following this they have villas for parole chronic workers, for old feeble parole patients, and for workers who are not on parole.

Another pleasant feature of the institution was the abundance of room everywhere. Each ward had one small room for soiled linen, one for clean linen, one for boots, and one for brooms, brushes, etc. These rooms, while small, were not dark closets but well lighted and well ventilated, and all tiled with clean white tile.

The dormitories in the Infirmary wards gave 67 feet of floor space to each patient, and in the other wards 50 feet of floor space. This does not seem large but it must be mentioned that every dormitory has windows on three sides. Every corridor, sitting room and dormitory in the whole institution is tiled to the height of about 4 feet and every room in which there is water, as bath rooms, kitchen, laundry, scullery, closets, etc., are provided with tiled floors, walls and ceilings. It was a new and pleasant experience for us to see an institution in which all these rooms were as well ventilated and as clean as any hospital ward.

Each of the 14 wards which together make up the Institution proper is a long, narrow, two-storey structure with a 12-foot verandah reaching nearly the whole length of the building. There are no basements and consequently the ground floor is low and the verandah is not over 18 inches above the ground. The building being narrow the dormitories are the full width of it, and the windows are on both sides of it giving direct and complete ventilation. Even the absence of basements appealed to us as it did away with the constant accumulation of rubbish which not only makes the place appear neater, but also helps to do away with many nuisances as rats, foul odors, contagion, etc.

The furnishings of the wards were not profuse but what they had were substantial and mostly of the mission pattern. There were few decorations except in the Convalescent Cottages. The large open windows, wide verandahs and plain furniture gave the place the appearance of a summer cottage in this country, and this appearance was impressed on us by the fact that nearly half of the patients of the institution had their dinner the day that

we were there on the verandahs. The patients in the Convalescent Female Cottage had moved their dining tables out under a tree and we saw them having their noonday meal sitting on camp chairs in the shade of a beautiful English elm. This we understood was done every day that the weather would permit, and when it was raining the meals were served on the verandahs. This feature was so common that in several wards the regular dining room had been furnished as a sitting room and all the dining tables were outside all the time.

The medical staff of this institution is not large as compared with ours. They have 2,000 patients and about 7 medical officers. They have for the 2,000 patients about 275 attendants and nurses on day duty, and on night duty 16 men and 29 women, making a total staff of about 310. This works out about one nurse for 6 patients.

They had one padded room but it looked as though it had never been used, and we were told in Long Grove that the use of this room was not abused.

They had one continuous bath equipped but used very infrequently as they claimed to get better results from fresh air, sunlight, occupation, etc. The physicians said that sometimes they were compelled to resort to the use of sedatives, and when looking over charts they seemed to us to be used much more freely than in this country. Their charts and records were not typewritten but each patient was given six pages in a large book. These pages were divided under many headings and when all filled up contained a great deal of information mostly of the type that is furnished by our Application Forms.

Some estimate of the cost of these buildings may be had from the Annual Report of the year 1907. We find that the foundations were built by one contractor who did the work for £43,888. The tender for the superstructure amounted to £339,892. The heating and ventilation plant cost £19,536, and the buildings and plant for light and water supply made an additional £18,500, so that we see the buildings cost about £441,816. This does not include cost of land or of furniture, clothing or linen.

Already we have an expenditure on capital account of about £220 or $1,100 per patient, and when everything was ready for opening it is safe to say that they had spent $1,200 per patient.

But we have neglected to mention that this institution has besides its beautiful wards and villas many other buildings, helping to make it more complete, viz.:

1. A nurses' home in charge of a Domestic Science woman. This building gives each of the 150 nurses a *separate* room. It has also a separate dining room and sitting room for senior nurses or charge nurses, and a dining and sitting room for nurses in training. In it is located a little hospital ward for any of the nurses who may be sick, and also a large bright reading room and recreation hall.

2. An attendants' home for male help, furnished with gymnasiums, etc.

3. Two amusement halls, one large for all institutional functions, and a smaller one for staff meetings, band practice, little hops, etc.

4. A comfortable mortuary with post mortem rooms, pathological rooms, chapel, etc.

5. Large, well-equipped machine and carpenter shops. These buildings were large enough that all the work could be done in them, and all materials stored within. Nowhere about the place did we see any old broken furniture, machinery or scrap iron lying around outside.

6. The laundry was large, well lighted and well ventilated, and tiled with white tile throughout. Beyond the regular laundry was a small one for foul and infected material.

7. The sewing rooms and tailor shops were well furnished and each patient's measure is kept on file, and each year each patient requires a certain amount of clothing and the tailor or seamstress is expected to furnish this clothing. No patient in this institution wears private clothing, so that each patient must each year be supplied with his proper number of shirts, coats, trousers, under-

wear, socks, etc. These are marked for him before leaving the sewing room. In this way each patient has a full supply of clothing furnished, and this is kept in a separate locker so that it can never get mixed with other clothing.

8. Complete fire department equal to that of any small town.

Possibly this institution could have been improved by an Associate Dining-room such as we saw at Larbert, for the serving of meals in so many places must mean a certain amount of waste and extra help. Just here we would like to say something about the Congregate Dining-room at Larbert Asylum.

In that Institution we saw about 400 patients, male and female, take their dinner in one large dining room. This room was in the same building as the kitchen and the two were separated by a serving room which was surrounded by steam tables. In the dining room were 50 tables, each accommodating 8 patients. When the dinner bell rang the patients marched in and stood at their places until "Grace" had been sung. Then all were seated. This little bit of discipline is very useful in helping to develop a habit of self-control. It is easy to train the patients here to wait because there was no food on the table when the patients came in. The day we were there the dinner consisted of three courses, viz., soup, fish and vegetables, and rice pudding. One nurse or attendant was in charge of each table, and after the patients were seated she went to the serving tables and brought the soup. This soup was served in the plates by help in the kitchen. When the patients had partaken of this course the plates were removed and 8 plates of fish and vegetables were brought. After this the dishes were again removed and the rice was brought. On a little side table were placed a pitcher of water and glasses; also milk for the rice. One nurse could with ease wait on eight patients, and the dinner was the warmest and most attractive that we had ever seen in a large asylum dining room.

This dining room and kitchen were in charge of a graduate of a good school of Domestic Science. She went

to her place in that building in the morning and her staff of maids and cooks brought in the working patients, and the head of the department remained there all the time that anyone was in the kitchen or dining room. When asked about the bill of fare for different days she knew all the meals, and the amount for each patient without referring to any book. She had also established the custom of making tea and coffee in the old-fashioned tea and coffee pots. She claimed, and gave reasons for her claim, that it is impossible to make good tea in the large copper boilers commonly used. Consequently every evening each table was furnished with a pot of hot tea, and the nurse poured this tea when the proper time had come for it.

All that was demanded of this woman in charge of the kitchen and dining room was that every dish served at every table for each meal of every day be properly cooked and properly served. This was demanded because when the physician in charge took us into the dining room a tray was at once produced with a full dinner for one patient on it. The physician examined it by tasting. He then made inquiries from the head nurses who had brought in the patients and being satisfied that all was right he went to the desk and turned up a book that had been provided. In this book he initialed every item on the bill of fare for that meal. Each meal was initialed by either a physician or the matron and when we looked back we found that this had not become simply a routine as we saw reports of various trifling mistakes in preparation or service. Each time that anything was reported wrong the woman in charge had to make a report through the matron to the superintendent explaining how the error had occurred. The meals were good in that dining room simply because it was possible to serve everything hot, and because the woman who had charge of the kitchen and dining room was a competent woman, and she had been hired to take charge and give her whole time to those rooms.

We might also draw attention to the fact that we thought she was underpaid. We understood that she was a graduate of the best school of domestic science in Great Britain, a school where four years is required to complete the course. She was young, active and bright, and she was on duty in that kitchen and dining room from before breakfast until after tea and for all this she was paid the sum of £40 a year or about $17.00 per month.

Returning to Long Grove, we would like to say that the buildings are practically fireproof. The floors are nearly all tiled. The walls of many rooms are tiled. The roofs are slate or tile and each verandah had iron pillars with a glass roof, and furthermore the wards are not quite in direct contact with each other.

What more complete institution than this could be imagined? What more ideal place for the care of the insane? and I think it is little wonder that the Englishman sticks out his chest and says, "if you will come over 'ome we will show you how to build and run an asylum."

THE BINET SYSTEM OF MEASURING INTELLIGENCE.

J. P. DOWNEY,

Superintendent, Hospital for Feeble-minded, Orillia, Ontario.

1. Age of Applicant.
2. Age of Applicant mentally.

If to the History Form or Form of Application now in use at this institution, we were to add Question No. 2, few, I apprehend, would understand the meaning of it, and scarcely anyone would attempt an answer. The mental age of a defective child is the age at which a normal child would show like mental development. For instance, the normal child of five years is able to tell which is the heavier of two weighted blocks, of equal size

and like appearance, the difference in weight being as 3 to 12. He is able to copy a square, with a pen, so that the square can be recognized; to arrange the two pieces of a visiting card cut diagonally so as to form the original card; and to count four cents in a row. The feeble-minded child, be he ten, twelve, or twenty, who responds to this five-year-old test, but fails to answer the questions set for six, according to the Binet System, is but five years of age mentally.

At first blush it would seem preposterous to suggest that any method could be devised for measuring intelligence. So thought I when the Binet System came under my notice. But I have read and seen sufficient since then to convince me of its accuracy and its ready adaptability to the work of estimating the degree of defectiveness in backward and feeble-minded children. Binet, a Paris professor, first published his series of tests in 1906. For years he had labored to ascertain the mental capacity of normal children at given ages—beginning at one and continuing up to thirteen—and many thousands of little ones were for this purpose placed under his observation.

Establishing with reasonable accuracy what the normal child should be capable of doing at a given age, Binet makes it possible to measure the degree of defectiveness, by years, in a feeble-minded person. The abnormal boy of eighteen or twenty may be shown to be six or seven years old mentally. In other words, he possesses only the degree of intelligence of the child who has just reached the age of reason. The advantage of such a system—developed and varied to meet special conditions—in the care and training of the feeble-minded, can readily be seen. Reinforced by careful observations, tabulated from time to time by those who have charge of the children—at school, at work, or at play—the Binet System can be made a reliable guide in the classification of mental defectives and their training for the greatest usefulness of which they are capable.

Of little use, in most cases, is the History Form, filled by parents or guardians, as far as giving a key to the

mental capacity of a patient. Parents are the last to see and the most reluctant to admit the defectiveness of the child. In fact, some parents are themselves so lacking in intelligence that they are blind to the evidences of absolute imbecility in their offspring. The mother of a child, recently admitted to this institution, wrote to know if Jimmie ever played on the piano. As a matter of fact, from the day he arrived until the present time, Jimmie could not tell a piano from a self-binder.

But what has all this to do with the Binet System? Only to emphasize the absolute dependence of institution officials on their own researches and observations in the classification of their patients, and the aid such a system is likely to be to them in that work.

Mental defectives are now divided into three groups: the Idiot, the Imbecile, and the Moron. These in turn may each be subdivided into three grades: high, middle and low. Between the low grade idiot—the perfectly helpless child—and the high grade moron, who can do fairly complicated work under occasional supervision, but lacks the judgment and discretion essential to his own protection among normal people—there is a wide field for study and classification. In this field much can be accomplished by the aid of the Binet System.

Let me digress for a moment here to correct an erroneous impression. Most people seem to think that only the helpless or semi-helpless idiots should be confined in institutions, and that those who may be made useful in the outer world should enjoy their liberty. A moment's reflection will show the fallacy of this view. The moron is a greater menace to society than the low grade idiot. Not by the pitiable objects that constitute the lower grades of an institution's population will another generation of feeble-minded be propagated. In the border-land cases—the cases in which the defectiveness is more real than apparent—and our failure to segregate these cases, lies the chief obstacle to the elimination of a class which year by year is becoming a heavier burden and a graver menace to society. Now to return to the Binet tests:

To be of practical use the system must be accurate and it must be adaptable. How has the Binet method stood the test of practical experience? For answer we may at once turn to the leading institution in the United States for the care and training of the feeble-minded, viz., the Training School at Vineland, New Jersey. Dr. H. H. Goddard, the Director of Research at Vineland, gave early and earnest attention to the Binet tests. Not without some misgivings did he proceed to the trial of the system among the four hundred children in his institution. At first it appeared to him that these tests were "too definite, indeed too easy," but he proceeds, "to our satisfaction, we find that the children test up by these methods very closely to what experience has taught us." And what has been the result of the applications of the Binet tests to the population at Vineland? Thirty-six have the mental capacity of a child of one year or less; 37, the capacity of a child of two years; 40, of three years; 37, of four years; 42, of five years; 39, of six years; 47, of seven years; 44, of eight years, 30, of nine years; 14, of ten years; 5, of eleven years; 7, of twelve years; and the quite surprising thing is the fact that there is none who test above twelve.

But Dr. Goddard and his associates did not rest content with the general confirmation by the Binet scale of the classification of their children. They subjected it to the most searching scrutiny in each particular case. Let me quote the doctor's own explanation:

"The first thing was to call to our aid the experience of all those in the institution who knew these children and had known them for some years. At our executive meeting, composed of the heads of all the departments of the institution, these lists were read one at a time, and the members present were asked to express their opinion as to whether the children given in any one list seemed to them to be all of about the same mental capacity; whether any in the ten-year-old list, for example, seemed to them to be much higher or much lower than others in that list. The result of this method was as follows: As

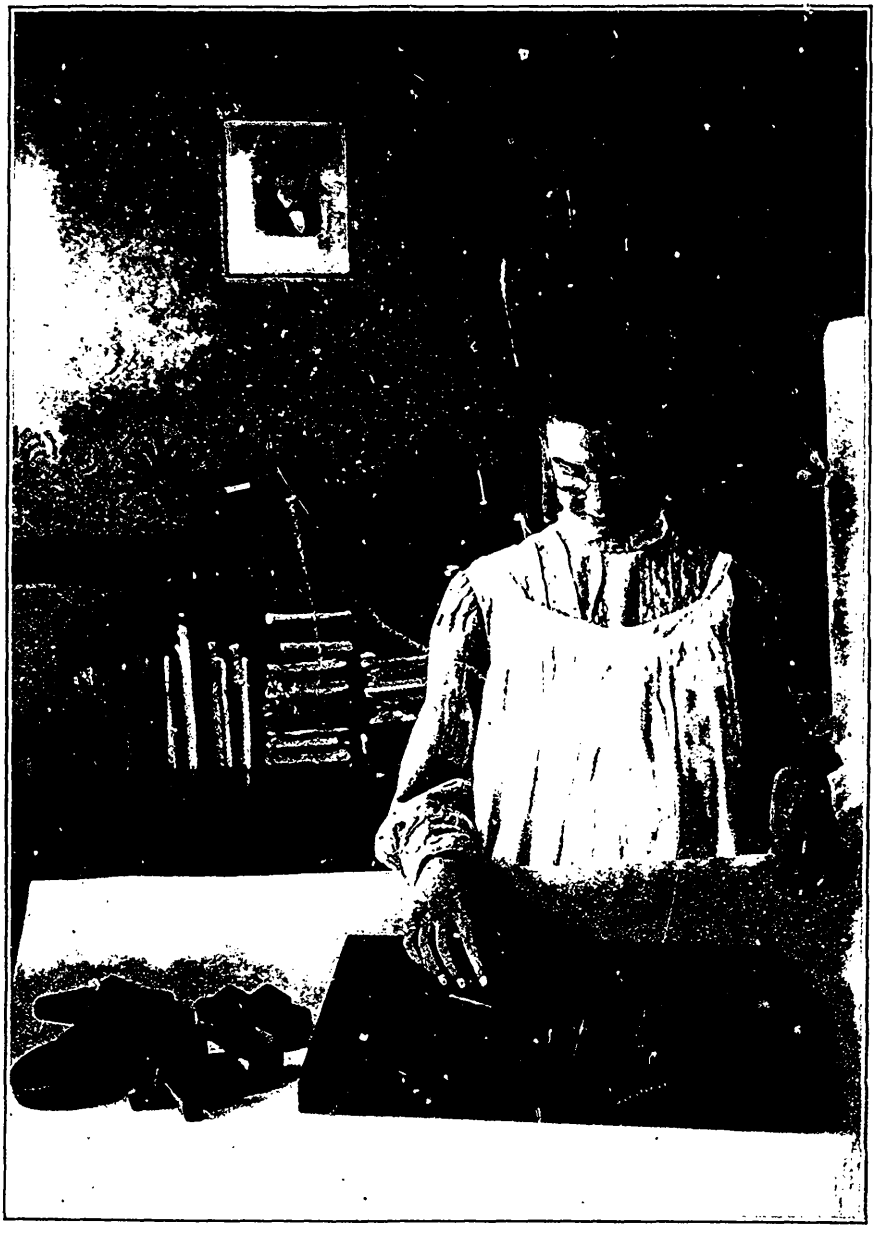
soon as the list was read, someone immediately raised a question in regard to certain cases. This was, I believe without exception, always answered by others in the room, that the objection was not a valid one, that the child in question was about the same grade as the general run of the group. Perhaps the person who thus answered would, on the other hand, suggest some other child that he thought did not belong to the group, to which again others would make the same answer. In other words, the outcome was that no child was entirely thrown out of the group by even a majority of those present, to say nothing of a universal condemnation of the result. I next took the same procedure with the teachers of the school. Having them all together, I read the lists carefully and asked them to raise any objections that occurred to them for grouping all of these children together. Precisely the same thing happened as with the heads of the departments. Certain teachers felt that some child, or several children, perhaps, were too high or too low and did not belong to the group, but always some one or more came to the defence of the classification as it was presented, and the result was that we decided that there was no exception to be made to the grouping as determined by the Binet tests.

"Such a result as this was very surprising and encouraging. Such a result was not wholly unlooked for by us because, while giving the tests, we had come more and more to feel that Binet had certainly evolved a very remarkable set of questions, and that they did work out with amazing accuracy. I believe it is true that no one can use the tests on any fair number of children without becoming convinced that whatever defects or faults they may have, and no one can claim that they are perfect, the tests do come amazingly near what we feel to be the truth in regard to the mental status of any child tested."

A test, used in many institutions for years, is known as the Form Board. As will be seen by the illustration elsewhere, this is a board into which have been cut ten designs—circle, square, star, etc.—corresponding to ten

blocks carelessly placed on the table. The test is in having the child put the ten blocks each in its proper place in a given time. At Vineland they submitted the Binet test to the test of the form board. They had every child in the institution try the form board, and the time each one occupied in placing the blocks in their holes was arranged in a curve according to the mental age of the child as determined by the Binet test. The following was the result: Those who are two years old mentally require 150 seconds on the average to do the form board; those who are three years old require seventy seconds; the four-year-olds, fifty seconds; the five year group, thirty seconds; and so on down the time scale and up the intelligence scale until those who are twelve years old can do the form board in thirteen seconds. Thus, as Dr. Goddard says, is obtained a very pretty curve and an impressive confirmation of Binet's estimate.

When I was in Vineland a short time ago, I was privileged to spend an afternoon in Dr. Goddard's laboratory. Among the children whom I saw examined that day I recall two boys. One who had just been received was quick, impulsive, observant. He seemed to take in the whole room at a glance, had something to say to everybody, and went from one subject to another with startling rapidity. Shown a series of pictures in the seven-year-old test, he described them promptly and accurately: A woman in a butcher shop; butcher selling her sausages; a man chasing boys down steps, etc., etc. When it came to the reading test this boy did equally well, but asked a moment later to recall something of what he had read, his mind was a blank. Boy No. 2 had been in the institution some time. Shown the pictures, he utterly failed to grasp their meaning. All he could see was a man and a woman; a man and boys. He read with considerable difficulty the same selection the other lad had rendered readily, but requested to recall something of what he had read, he could remember two or three of the incidents narrated. Thus the Binet System not only serves to establish the degree of defectiveness but also the par-



ticular nature of the abnormality, and aids in determining the kind of training that will conduce to the highest usefulness of the patient to himself and the institution.

I have given some of the questions set for the normal child of five. He is supposed to count up to four. Binet, on his thousands of experiments, has decided that at three years a child does not know how to count four; at four, half succeed; at five, all succeed. At three years, however, there are things the normal child can do. Asked, "Where is your nose Your eyes? Your mouth?" he should be able to indicate these organs by a gesture. A child of three can repeat two figures, 6-4; he can name figures in a picture, such as boy, man, cart, but he cannot describe the situation. All children of three know their first name and some know their family name.

What is the difference in years between copying a square and a diamond? No difference, most people would say. Binet says two years. The child of five can copy a square. He is seven before he can copy a diamond. Of course exceptions to the rule will be found. Some children of three years can copy a square; others will reach seven before they succeed. But the average will be found to correspond to the Binet System.

Passing to the tests provided for the child of six years, we find that he should be able to respond to the questions: "Show me your right hand, show me your left ear." He should repeat a sentence or a group of sentences of sixteen words. Binet gives this as an example: "Boys work on the farm; girls work in the house; boys and girls go to school." Then there is an aesthetic comparison illustrated elsewhere on these pages. Six heads of women in three pairs—in each pair, one pretty and the other ugly or even deformed—are shown to the child. Care is taken that the pretty one is now at the left and now at the right. At six all children correctly answer the question: "Which is the prettier?" At five about half succeed. Another interesting test for the six-year-old child is a commission which involves three distinct acts. For instance: "Do you see this key? Put it on that

chair, then shut the door. After that bring me the box that is on the chair. Remember, first the key on the chair, then close the door, then bring the box." These three commissions are to be done without further help, hint or suggestion. At four years scarcely any can do this, at five about one-half, at six nearly all succeed.

Through each succeeding year up to thirteen the tests become gradually more difficult. The child of seven can copy a diamond; repeat five figures, such as 4-7-3-9-5; should be able to count thirteen coppers and name four common pieces of money. The nine-year-old child should be able to name the day of the week, the month, the day of the month and the year. The days of the week should be recited in order without omission, in ten seconds. He should be able to make change, nine cents out of twenty-five, and arrange in order wooden cubes of the same size and appearance, but loaded so as to weigh 6, 9, 12, 15 and 18 grams. In three trials the child should succeed twice, and the whole operation should not take over three minutes. At eleven, among other things he is asked to say as many words as he can in three minutes, words such as table, board, carriage, horse, house, etc. The normal child should, at least, name sixty. Some have gone as high as two hundred. He should construct sentences out of given words, such as:

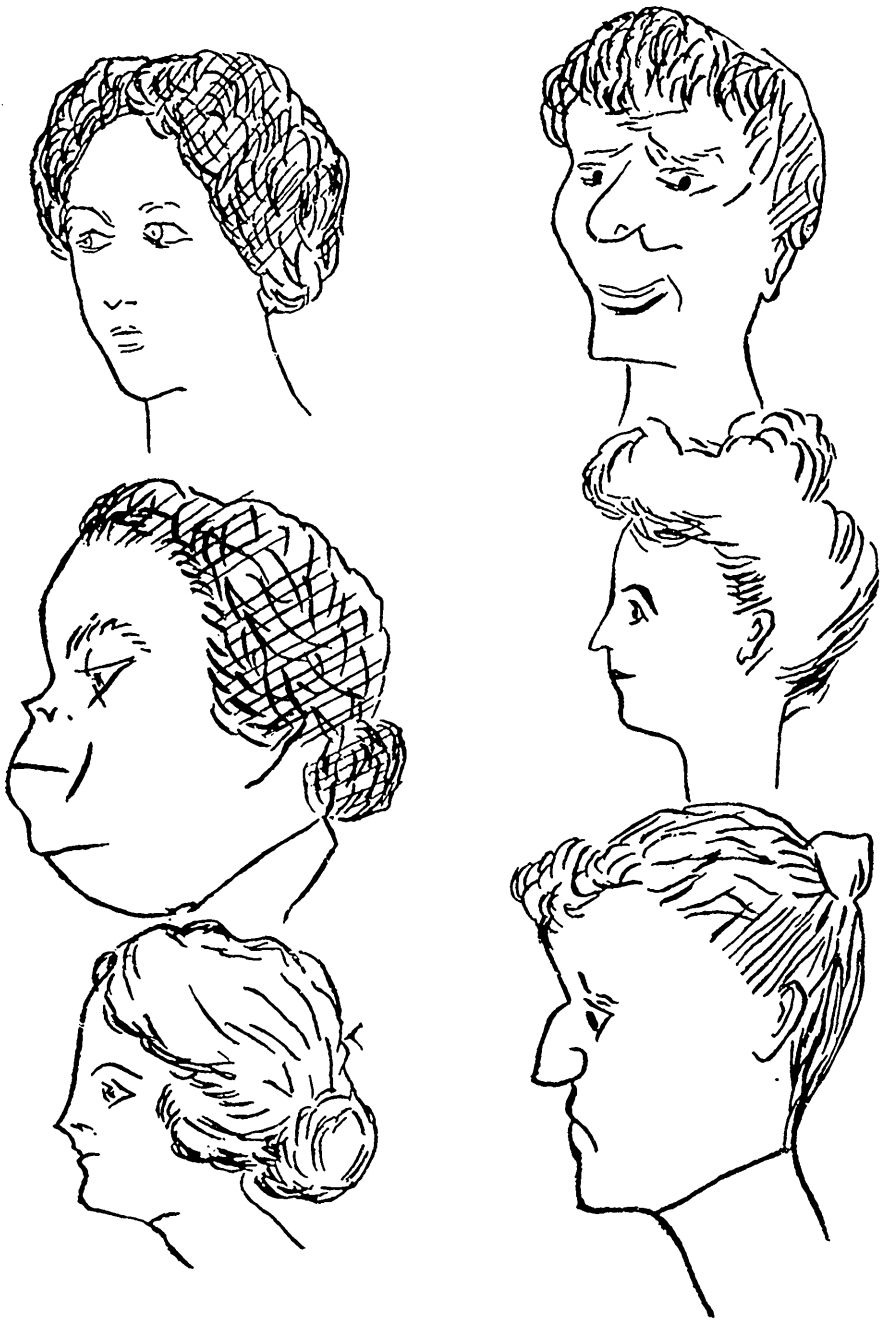
Hour—for—we—good—at—park—a—started—the.

To—asked—exercise—my—have — teacher—correct—my—I.

A—defends—dog—good—his—courageously—master.

In the first series I think the word "early" should be substituted for "good," and "an" for "a." The use of the word "good" as a qualifying adjective for "hour," is probably due to carelessness in translation. The sentences should be repeated orally from the printed words placed before the child. The time limit is one minute for each sentence and two sentences should be given correctly.

Many other examples might be quoted from this



remarkable series of tests, but sufficient have been given to indicate the character of the system and its possibilities as an aid in the classification of the backward and feeble-minded. It is not suggested by any of those who have adopted this method that of itself it is sufficient to get a clear insight into the mental capacity of each child. But employed, as has been already suggested, in co-operation with the work of observation by those in charge of the children and the research and analysis of scientific experts it can be made of great value.

A word may be in order as to the analysis of the tests. If a child is more than three years backward, he is considered mentally defective. A child is credited with the highest age in which he has been successful in all the tests save one. In other words, if the child should fail in one test at seven years, and one test at eight years, he is credited with the mentality of an eight year old child. Should a child fail in two of the tests in a given year, but succeed in three of a higher year, he is given credit for the lower year.

The tests must be made with sympathy and judgment. Under no circumstances should a child be excited. He should be put perfectly at ease and impressed with the idea that the tests are a game in which he and the examiner are playfully engaged. He must be kept as free from distraction as possible, and the examination should never be prosecuted to a length that will fatigue the child. An easy method of recording the results is to have the tests printed in order on a sheet. Then a plus or minus sign made after each question will indicate whether the test had been successful or not. When a question is answered incorrectly, no attempt should be made to correct the child or repeat the question, but the examination should proceed with as much encouragement as if a correct answer had been given.

The importance of the Binet System is being generally recognized in the institutions for the feeble-minded in the United States. At Vineland, N.J., they have established a Training School for teachers who have received

commissions to work among the backward and feeble-minded children. From the ungraded schools in New York, 120 in number, thirty teachers are this summer taking a special course at Vineland under Dr. Goddard and his assistants. Is it possible that in the near future we may have established at Orillia, a laboratory equipped for this work, a training school with a sufficient staff, and a summer school for the teachers of the Province who have taken up the most exacting branch of pedagogical work, viz., the training of defective children?

A CONSIDERATION OF FIFTY-NINE CASES OF GENERAL PARESIS.

JOHN H. STEAD, M.D.

Hospital for Insane, London, Ontario.

Sex.—The above series of fifty-nine cases of General Paresis is made up of fifty-four males and five females, or a proportion of 1 : 11. V. Kiss gives the incidence in women as compared with men as 1 : 3.9, Ringe found it 1 : 5.6, while Diefendorf gives the proportion as 1 : 3.9 to 7. The disease is undoubtedly now recognized much more frequently in women than formerly, the rare occurrence of a marked euphoria, and the variation in the disease as it affects females, having caused it to have been frequently overlooked.

In this series the disease comprises 12 per cent. of the total admissions. Of the male admissions 24 per cent. are paretics, while 2 per cent. of the females admitted are similarly affected. The fact that these percentages are somewhat higher than the average in America, where the relation of paretics to the total admission is about 1 : 20 to 14, may be explained by the fact that all of the above cases have been drawn

GENERAL PARESIS

No.	Name.	Sex.	Age at onset of Symptoms.	Civil State.	Admission of Syphilis.	Time between Infection and Appearance of Paresis.	Duration of Symptoms.	Post Mortem Findings.	Clinical Character of Case.	Cerebro Spinal Fluid. Ammonium Sulphate Test. + = Positive.	Cerebro Spinal Fluid. Noguchi Test. + = Positive.	Cerebro Spinal Fluid. Leucocyte Count, Per C.MM.	Wasser-man Reaction.	Pupils. I=Irregular. U=Unequal. S=Sluggish light reflex. A=Absent light reflex. D=Dilated.	Knee Jerk.
1	T. G.	M.	44	M.	Yes.	21 Years.	8 Months.	Typical G.P.I.	Demented.	+	+	0	Not done.	I. S.	+
2	W. F.	M.	51	M.	Denied.	....	30 "	Living.	"	+	+	38	"	S.	+
3	R. D.	M.	50	M.	"	....	17 "	"	Expansive.	+	+	9	"	Normal.	-
4	M. P.	M.	36	S.	Unascertained.	....	12 "	Not done.	Demented.	Negative.	+	5	"	S.	+
5	J. K.	M.	35	S.	Exposure.	....	30 "	Living.	Expansive.	+	+	18	Positive.	Left I. S.	+ +
6	F. R.	M.	38	M.	Yes.	10 Years.	17 "	"	Depressed.	Not done.	Not done.	Not dono.	Not done.	S.	Absent.
7	F. D.	M.	38	M.	"	12 Years.	17 "	"	Expansive.	+	+	98	Positive.	I.	Absent.
8	G. M.	M.	49	S.	"	12 "	18 "	"	"	+	+	218	"	A.	Absent.
9	A. B.	M.	47	M.	Denied.	....	6 "	Typical G.P.I.	Demented.	+	+	98	Not done.	I. S.	+
10	A. B.	M.	33	S.	Yes.	11 Years	36 "	Living.	Depressed.	+	+	53	"	S. D.	-
11	A. S.	M.	36	S.	"	10 "	13 "	"	"	+	+	803	Positive.	Left I. S.	-
12	W. H.	M.	41	M.	"	20 "	30 "	"	Demented.	+	+	232	Not done.	Unascertained.	+
13	W. McK	M.	45	S.	Unascertained.	..	12 "	Typical G.P.I.	"	+	+	169	"	Right S. I.	+
14	D. M.	M.	41	S.	Yes.	18 Years.	52 "	" "	Agitated.	+	+	27	"	S.	Absent.
15	E. C.	M.	38	M.	Denied.	..	13 "	Not done.	Expansive.	+	+	59	"	D. S.	Absent,
16	T. P.	M.	54	M.	"	..	12 "	"	Demented.	+	+	224	"	I. U. A.	+
17	W. H.	M.	36	S.	Yes.	14 Years.	18 "	"	Agitated.	+	+	200	"	Left D. and S.	Absent.
18	A. LeG.	M.	26	M.	"	3 "	14 "	Living.	Expansive.	Negative.	Negative.	268	"	Normal	Normal.
19	A. C.	M.	34	M.	"	19 "	12 "	"	"	+	+	234	Positive.	D. S.	+
20	C. V.	M.	41	M.	"	11 "	8 "	Not done.	Demented.	+	+	234	Not done.	Slightly S.	Absent.
21	G. W.	M.	40	M.	Denied.	....	19 "	Living.	Depressed.	+	+	20	Positive.	Normal	+
22	F. C.	M.	37	M.	Yes.	12 Years.	9 "	Typical G.P.I.	Expansive.	+	+	841	"	I. S.	-
23	A. C.	M.	33	M.	"	10 "	8 "	" "	"	+	+	136	"	D. I. S.	+
24	M. M.	M.	31	M.	"	8 "	14 "	Living.	Depressed.	+	+	63	"	D. S.	+
25	P. C.	M.	18	S.	Congenital.	....	11 "	Typical G.P.I.	Demented.	+	+	129	"	D. I. A.	+
26	J. M.	M.	43	S.	Yes.	15 Years.	26 "	Living.	"	+	+	200	"	D. I. S.	+
27	J. B.	M.	44	M.	"	18 "	20 "	"	Expansive.	+	+	2	"	I. S.	+
28	H. L.	M.	49	M.	Denied.	....	36 "	"	"	+	+	169	"	I. S.	+
29	T. B.	M.	34	M.	Yes.	18 Years.	9 "	"	"	+	+	529	"	I. S.	+ +
30	W. Mc.	M.	31	S.	"	7 "	6 "	"	Depressed.	+	+	9	"	D. Normal to light.	+ +
31	F. B.	M.	39	M.	"	23 "	12 "	Typical G.P.I.	Agitated.	+	+	90	"	I. A.	+ +
32	A. B.	M.	56	M.	"	30 "	10 "	Living.	Demented.	+	Negative.	15	"	I. S.	Absent.
33	W. B.	M.	29	S.	Exposure.	....	12 "	"	"	Negative.	+	17	"	I. Normal to light.	+
34	F. B.	M.	47	M.	Denied.	....	9 "	"	Expansive.	+	+	96	"	Contracted S.	+
35	J. T.	M.	48	M.	Yes.	23 Years.	6 "	"	"	+	+	379	"	U. normal to light.	+
36	A. B.	M.	53	M.	"	35 "	12 "	"	Demented.	+	+	79	"	Right D. S.	+
37	W. B.	M.	52	M.	"	16 "	36 "	Typical G.P.I.	Expansive.	+	+	229	"	D.Lft.inact.Rght.S.	Absent.
38	S. F.	M.	18	S.	Congenital.	....	6 "	Living.	Demented.	+	+	158	"	D. A.	+
39	N. C.	M.	32	M.	Exposure.	8 Years.	12 "	"	"	+	+	19	Negative.	I. S.	+
40	C. C.	M.	33	M.	Denied.	....	9 "	"	"	+	+	134	Positive.	S.	+
41	J. B.	M.	35	M.	Yes.	11 Years.	20 "	"	Expansive.	+	+	19	Not done.	I. U. normal to light	+
42	R. B.	M.	39	S.	Unascertained.	....	48 "	"	"	+	+	100	"	D. A.	Absent.
43	W. L.	M.	33	S.	"	....	30 "	"	Demented.	+	+	448	Positive.	D. A.	+
44	W. P.	M.	42	M.	Yes.	8 Years.	18 "	"	Expansive.	+	+	300	"	I. A.	-
45	J. A.	M.	52	M.	Denied.	....	33 "	"	"	+	+	167	Not done.	I. normal to light.	+
46	P.G.	M.	44	M.	"	....	21 "	"	"	+	+	83	"	S.	+
47	P. B.	M.	47	S.	Unascertained.	....	24 "	Typical G.P.I.	Demented.	+	+	120	"	D. S.	+
48	J. D.	M.	46	M.	Yes.	21 Years.	32 "	" "	Expansive.	+	+	23	"	D. A.	+
49	G. F.	M.	40	S.	"	11 "	51 "	" "	Demented.	+	+	120	"	D, S.	Absent.
50	J. P.	M.	44	S.	"	4 "	32 "	" "	"	+	+	220	Positive.	S.	+
51	C. R.	M.	45	M.	Denied.	....	39 "	" "	Expansive.	Not done.	Not done.	Not done.	Not done.	I. normal to light.	Absent.
52	A. P.	M.	42	M.	"	....	41 "	Living.	Demented.	+	+	2	"	S.	+
53	S. M.	F.	29	M.	Unascertained.	....	14 "	Typical G.P.I.	"	+	+	365	"	D. U. S.	+
54	R.	F.	35	M.	"	....	29 "	" "	"	+	+	30	"	D. S.	+
55	L.	F.	38	M.	Exposure.	....	6 "	Living.	"	+	+	31	Positive.	U. S.	+
56	F.	F.	47	M.	Unascertained.	....	10 "	"	"	+	+	160	"	S.	Normal.
57	H.	F.	30	M.	Exposure.	....	48 "	"	"	+	+	90	Not done.	I. S.	Absent.
58	A. W.	M.	48	M.	Yes.	30 Years.	14 "	Typical G.P.I.	"	+	+	10	"	D. I. A.	+
59	C. L.	M.	36	M.	"	17 "	19 "	" "	Expansive.	+	+	60	"	I.A.	Absent.

from a thickly-populated centre in which the proportion of foreign-born is on the increase.

Age.—In the great majority of the cases the disease makes its appearance in the third and fourth decades of life when the intellectual faculties are supposed to be

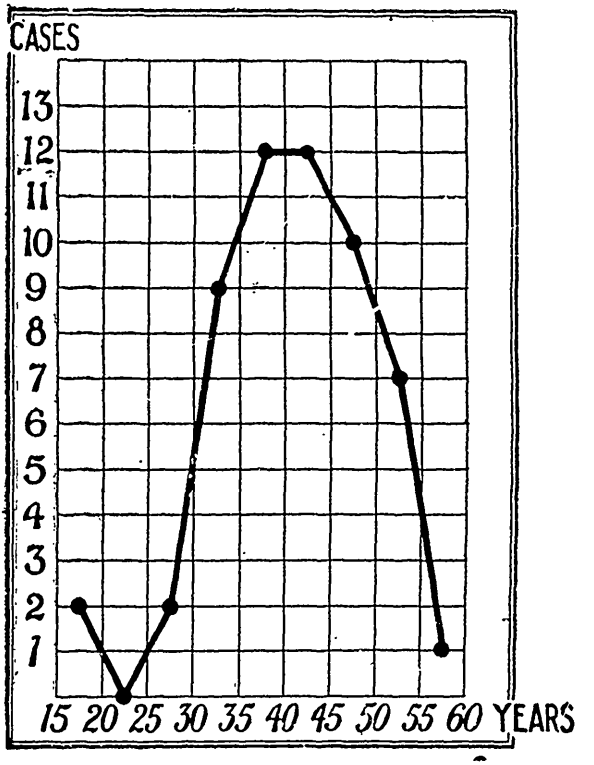


Diagram to show the relation between the age and the number of cases.
The figures at the side represent the number of cases; those at the bottom the ages.

at the highest stage of their development, and the individual is subjected to the greatest stress and strain of life. In the above list two undoubted cases appear in

the second decade, but such are rare and are generally of congenital origin. The average age of onset in these fifty-nine cases is forty years, while Diefendorf in a series of 149 cases finds it to be forty-two years, Kraepelin in 249 cases finds that 81 per cent. of his cases appear between the ages of thirty and fifty.

The average age of onset in our women was five years younger than in the men, being thirty-five years as compared with forty years in the men. Diefendorf also finds the age of onset younger, but in his series gives a difference of two years. Kraepelin, however, finds that the onset in women averages later. There are only five females in the above list, and this is obviously too small a number from which to draw any general conclusions.

Civil State.—Thirty-six males were married and eighteen single, while the five females were all married.

Duration of the Disease.—Of the cases that are dead the duration of the symptoms was twenty months, while those that are still living have an average of nineteen months. It might here be well to point out that probably the duration of the symptoms in any series is given as too short by several months, for slight changes of character, such as irritability of temper, moroseness, etc., are easily overlooked and their importance underestimated.

Knee Jerk.—The knee jerk in general paresis has been studied by numerous observers, and the character of the disturbance has been found to depend largely on the character and extent of the changes in the spinal cord. The statistics vary considerably in different series of cases, the difference being probably explained by the stage of the disease at which the observations were made. In fully one-half the cases in most series the reflex is exaggerated. It is generally diminished in those cases showing tabetic symptoms. In the above series in 64 per cent. of the cases the reflex was exaggerated, in 23 per cent. absent, it was diminished in 8 per cent., and is given as normal in 3 per cent.

Clinical Forms of the Disease.—The demented form comprises 45 per cent. of the total number of cases, the expansive form 38 per cent., while the depressed and agitated forms make up 10 per cent. and 5 per cent., respectively. The percentages usually given vary considerably from the above, the expansive form being placed at 16 per cent. and the depressed 25 per cent. It might be well to point out that there is a difference between the true depression and the unstable emotional tone so common in paresis, a fact which may account for so many cases of the depressed type being reported. The matter is not of great importance, however, the facts given out depending largely on the individual views of the observer.

Of the four clinical types of the disease the expectation of life in the expansive form seems to be somewhat longer, averaging twenty-one months as compared with nineteen months in the demented, seventeen in the depressed and thirteen months in the agitated forms. As stated elsewhere, symptoms no doubt exist unrecognized for some months, and if such time were taken into account the average duration of the symptoms would be that much longer.

Pupillary Changes.—Changes in the pupil are present in the majority of the cases and are of great diagnostic value. Inequality of the pupil is common, occurring in over 60 per cent. of the cases, and when marked is of considerable diagnostic importance when considered with other symptoms. A frequent accompaniment of inequality is irregularity in outline of one or both pupils, a condition which was present in 42 per cent. of the cases. Sometimes the pupils appear symmetrical as in normal individuals, but owing to a difference in their response to stimulation an inequality is apparent during examination, as with changing strength of the stimulus one pupil acts more quickly than the other.

In addition to irregularity and inequality a defective reaction to light in one or both eyes is present in 91 per

cent. of the cases. In the early stages of the disease when neurasthenic symptoms are present the light reflex is often very active, but as these symptoms pass away and the disease becomes more advanced, the reaction to light gradually becomes more and more sluggish and may finally pass away entirely, though the reaction to accommodation is retained. The typical Argyll-Robertson pupil is infrequent except in cases with a tabetic onset. Some observers affirm that immobility of the pupil may disappear and reappear in the course of the disease, as it has been observed to do in tabes dorsalis. The paradoxical reflex—the pupil not contracting when exposed to light but dilating shortly afterwards—was observed in one of the above cases. Out of fifty-eight of the foregoing cases three reacted normally to light, thirty-seven showed a sluggish reaction in one or both eyes, in twelve the light reflex was abolished, while the remaining six reacted normally to light but presented other changes, such as irregularity of outline or inequality.

Syphilis.—The relation between paresis and an antecedent history of syphilis is a matter that has brought forth two antithetical views, some observers holding that syphilis is the sole cause of nearly all the cases, while others minimize the significance of such infection and assert that alcoholism, heredity, exposure, etc., are equally prominent etiological factors. The prevalence of syphilis varies according to various authorities from 2 per cent. to 93 per cent., most observers placing it between 50 and 60 per cent. In the present series it existed in 54 per cent., while 9 per cent. more of the cases admitted exposure. In 17 per cent. of the cases a history was not ascertainable, while 20 per cent. absolutely denied specific infection.

To turn for a moment to a consideration of the conditions other than syphilis stated to be causes of the disease, we find among the most prominent such factors as heredity, intemperance, stress, exposure, etc. Regarding hereditary predisposition it has been frequently pointed out that this plays far less part in general paresis

than in other forms of insanity. A history of intemperance is a common result of inquiry as to the past personal history of the general paretic. The friends or wife state that the patient was all right until he commenced his alcoholic excesses, forgetting that such very excesses may be the first sign of the onset of the disease. There is no doubt that alcohol acts as an exciting cause but in rural Ireland where alcoholism is extremely common, together with insanity, general paresis is rare. Heredity and alcoholism by themselves and without syphilis cannot produce general paresis. Mental stress and exposure to cold and wet are often assigned as causes of general paresis. These factors, while they undoubtedly cause their victims to suffer in consequence, are only of a contributory nature. The fact that congenital syphilis gives rise to juvenile paresis at an age when the above contributory causes have little chance to play a part, is a further argument in favor of syphilis being an essential cause. All evidence would appear to point to syphilis as the one essential cause of paresis and while the factors outlined above undoubtedly are of contributory value, there is no evidence to show that of themselves and without syphilis they are capable of producing the disease.

Just in this connection it is interesting to call attention to the length of time between the syphilitic infection and the onset of the paretic symptoms. Thirty-one of the above paretics acknowledge syphilis, the interval between their infection and the development of paresis averaging 15 years. The shortest interval is given as 3 years. The longest period of incubation was 35 years, a statement the accuracy of which I was inclined to doubt until inquiry of the patient's brother and the fact that the disease was acquired before leaving England over thirty years ago led me to accept the information as being correct. In none of the cases was there a history of a severe infection, all affirming that they had a slight attack or just a "touch" of syphilis which cleared up on taking a few pills or half a bottle of medicine. There is a point of interest in this. It seems to be the experience of most observers that it is

just these cases of syphilis that were cured by taking half a bottle of medicine that 10, 15 or 20 years afterwards develop paresis. Another point deserving of attention is that 10 of the 31 cases stated that they were infected during the South African war.

Findings in the Cerebrospinal Fluid.—The technique of examination of the cerebrospinal fluid was described at length by Dr. Ernest Jones in a preceding issue of the BULLETIN. In all the spinal fluid was examined in 57 cases. The Amm. Sulp. test, an extremely delicate one, was absent in only 3 cases while 2 gave a negative Noguchi test. In only one case were both tests absent but here the clinical features and the cell count of 268 left no reasonable ground for doubt. The average leukocyte count was 146 per cu. mm., the normal being given by different authorities from 4 to 7. As may be seen the number in this series varies greatly, ranging from 0 to 841. Case No. 1 with a negative count was rather interesting. To all appearances the condition was one of paresis though 2 examinations of the cerebrospinal fluid each with a negative leukocyte count led to the diagnosis being held in abeyance. At post mortem findings typical of general paresis confirmed our first suspicions regarding the case. Two other cases show a leukocyte count of only two, a finding, in view of the clinical picture, not easy of explanation and in itself insufficient for diagnostic purposes, yet both cases presented a clinical picture quite typical of paresis, and in one the Wasserman reaction in the cerebrospinal fluid was strongly positive. The great majority of the cases show a marked increase of leukocytes, a finding of high diagnostic value.

Wassermann Reaction.—In each of the cases above recorded the reaction was done on the cerebrospinal fluid. In all 30 cases were examined and in 29 positive results were obtained—a percentage of 96. In only 2 of the positive cases was the reaction negative the first time, and in both of these the second trial showed positive results. Statistics regarding the frequency of the Wassermann reaction in the cerebrospinal fluid vary. Wasser-

mann and Plaut in an early series state the frequency to be 78 per cent. while Plaut later places it at 98 per cent. Again Marie and Levaditi in their early work found positive results in 74 per cent. while in later cases they give it as 93 per cent. It has been suggested that improved technique may account for the variation. The important fact, however, about the Wasserman reaction is the general agreement among all observers that in suspected cases a positive finding makes it practically certain that the disease exists. In the hands of a careful and experienced worker it is the most valuable means for the diagnosis of general paresis that we possess, even more reliable than the Widal reaction in typhoid. The reaction is obtained otherwise only in syphilis of the central nervous system (and here only in 5 per cent. of the cases) and in tabes. It is a striking fact that in syphilitic meningitis the Wassermann reaction is negative. Speaking on this subject in a recent article in the BULLETIN, "Sero-Diagnosis of Para-Diagnosis," Ernest Jones says: "The value of the Wassermann reaction in the cerebro-spinal fluid as a diagnostic point is heightened, not only by the non-occurrence with the cerebro-spinal fluid of non-syphilitic cases, but still more by the comparative infrequency of its occurrence even in cases of tertiary syphilitic disease of the nervous system. If the nervous infection is syphilitic, but not parasyphilitic, then the cerebro-spinal fluid gives a positive reaction in only about 10 per cent. of the cases."

THE TUBERCULAR INSANE.

S. M. FISHER, M.D.

Assistant Physician, Rockwood Hospital, Kingston.

While we must recognize the brand which is put upon us at birth by heredity, nevertheless most of the ills of life are due to environment; the conditions under which

we live are responsible for them. This environment is changeable; herein lies our hope, and to this end should the various hospitals for the insane take the first place among the public institutions with regard to the prophylaxis, regulation and control of tuberculous patients.

It is a recognized fact that to-day the mortality from tuberculosis in asylums is just threefold as high as that prevailing outside of these institutions. Several phases of life among the insane that do not prevail under normal circumstances explain this condition of affairs. Many do not complain or tell of their symptoms, and thus do not for a time at least manifest tuberculosis; carelessness in habits, low mentality, intermingling of consumptives with other patients predisposed, and with those whose resisting power is much depreciated by intestinal auto-intoxication—these are some of the conditions peculiar to life in institutions for the insane which account for the ravages of this disease among our patients, especially the depressed and demented.

The diagnosis of tuberculosis in the insane is beset with many difficulties not encountered in general practice; in states of manic excitement or of obstinate resistance a satisfactory physical examination is extremely difficult or even impossible. On account of the lack of co-operation of the patient a definite history of the course of the disease is hard to obtain in those psychoses characterized by depression or delusional states. In some cases the mental deterioration is so advanced that little or no aid is available from the subjective symptoms, and the disease progresses without attracting attention. Even the diagnostic aid of the sputum cannot always be relied upon in the insane, as many patients swallow the sputum and cannot be induced to expectorate

At Rockwood Hospital, during the past year, we have endeavored to overcome some of the above named obstacles to the discovery of incipient and advanced tuberculosis, by the diagnostic use of tuberculin, in order that those afflicted might be isolated and treated. Three of the various tuberculin tests in common use, viz., the

"Calmette, Von Pirquet and Moro," were employed in 325 patients, and where possible a thorough physical examination was made in each case, also an examination of the fæces and sputum (when available) in all doubtful or suspected cases; autopsy reports on any of these cases were compared with our clinical data.

The following tests were used:

(1) Ophthalmic or Calmette—

(*a*) ½% Solution of Koch's old tuberculin.

(*b*) 4% Solution of Koch's old tuberculin.

(2) Von Pirquet cutaneous test (Koch's old tuberculin, full strength).

(3) Moro percutaneous test.

In the ophthalmic test an 0.8 per cent. solution of sodium chloride was used as a medium for the tuberculin and one drop of this tuberculin solution was instilled into the lower conjunctival sac of the selected eye; care being taken to hold the lid down for a few seconds to insure an even distribution about the sac. A positive reaction appeared within 24 hours in 94% of the patients who reacted to this test, and in the other 6% within 48 hours. The reaction varied from a slight but distinct palpebral redness with secretion, to a deep injection of the conjunctiva with oedema of the lids, photophobia and secretion. The reaction gradually faded away within 48 hours of its appearance in all but 15 of the 112 cases which reacted to one or other of these two tests. In all 15 cases the reaction was attended with little or no inconvenience to the patients and disappeared completely within a week. In conducting these tests the first strength was used in all our cases, with 72 positive reactions; the second strength in 55 cases clinically suspicious and which reacted poorly or did not react at all to the first test. Of these suspicious cases 40 reacted positively. Three cases, however, of advanced tuberculosis readily recognizable clinically did not react to either of these tests, nor subsequently to the Von Pirquet or Moro tests. An interval of six days elapsed before the second

strength solution was used in any patient, thus reducing to a minimum any chance of a purely irritative reaction. This test is contra-indicated in practically all eye diseases, and especially diseases of the conjunctiva.

(2) In the Von Pirquet test Koch's old tuberculin was used in full strength. Two small abrasions were made with an ordinary vaccination scarifier on the outer surface of the arm; these abrasions were superficial, no blood being drawn. One drop of the tuberculin was placed in the upper of the two abrasions and allowed to dry the lower abrasion was used as a control. As soon as the tuberculin was dry a clean gauze bandage was applied to protect it from the clothing. In 70 of the 96 cases which reacted, a positive reaction appeared within the first 24 hours, evidenced by a more or less deep cutaneous injection with one or more reddish papules about 3 to 5 mm. in diameter, in the area of scarification. Sixteen of the remaining cases appeared within 36 hours; 8 within 48 hours and 2 within 56 hours of the time of inoculation. Deep cutaneous injection was noted in 10 cases in which the patients were suffering from tubercular adenitis.

(3) In the Moro or tuberculin inunction test an ointment consisting of equal quantities of Koch's old tuberculin and anhydrous lanolin was used. Into the skin of the abdomen, over an area of about 3 square inches, a piece of this ointment the size of a pea was rubbed well in and any excess permitted to remain on the surface of the skin to be spontaneously absorbed. In the majority of our cases the reaction appeared after the first thirty-six hours, varying in all gradations from a few small pale papules over the area of inunction to that in which the region was very much reddened and covered with numerous small red papules. Of the 85 cases which reacted to this test only 6 appeared after the third day. In no case was there any untoward symptom beyond that of a slight itchiness. In the majority of cases the reaction gradually faded away by the sixth day, and in all cases by the eighth day.

The diagnostic value of tuberculin depends on a special sensitiveness the tissues acquire after a tuberculin infection, which is manifested by the inflammatory response elicited when the tuberculin is brought in contact with the skin or mucous membrane. As the tubercles become walled in by fibrous tissue this sensitiveness becomes gradually lessened, as noted in some of our cases where the repetition of a test in the same or increased dosage was capable of arousing a latent sensitiveness from a former apparently healed focus. The more recent the infection or the more extensive the disease, the more delicate was the reaction, except in a few cases where the disease was rapidly progressive and marked by a grave constitutional weakness. In the latter cases tuberculin was of little diagnostic value. From a few cases clinically tubercular, in which the bovine and human tuberculin was used with the Von Pirquet technic, we detected little or no evidence that would in any way aid in differentiating between human and bovine infection.

Comparison of the results obtained from the various tests indicates that 123 patients reacted to one of the three tests, 90 patients to two of the three tests and 70 to all three tests. In the patients which reacted to all three tests it was possible to obtain the sputum in only 38 per cent. of the cases, and among these tubercle bacilli were found in only 23 cases. Tubercle bacilli were isolated from the fæces in 5 cases in which they were not found after repeated examination of the sputum, and also in 7 cases in which the sputum was not available. Antiform solution was used in all sputum and fæcal examinations.

A glance at the autopsy reports of 17 cases in which the various tuberculin tests were tried during the past year discloses some interesting facts. In five cases which reacted to none of the tuberculin tests no obvious tubercular condition was demonstrated post mortem. However in one case in which every clinical evidence of far advanced phthisical condition was present, and the patient in a very debilitated and almost moribund state, even the repeated application of the tuberculin tests failed to call

forth any response; in this case a far advanced tubercular condition with cavity formation was found in both lungs. Again in the eight cases where a definite reaction was obtained with either the Moro, Von Pirquet or even both tests, with only one exception these bore evidence of some healed or latent tubercular condition. One case however presented a small active focus in the apex of one lung, while in the other apex was found a healed or latent tubercular focus.

In three cases which reacted to all three tuberculin tests, and which came to the autopsy table, an active pulmonary tubercular condition was found. In two of these cases a fairly satisfactory physical examination was possible, which corroborated the autopsical findings. The other case would probably never have been suspected or recognized until the disease had far advanced but for the tuberculin reactions, which fortunately enabled us to isolate the case. The last patient of this series which came to the autopsy table, and who was clinically phthisical, reacted to only one tuberculin test, and that the 4% tuberculin ophthalmic test, bore evidence of an active, well advanced pulmonary tubercular condition in both lungs.

The conclusions which seem warranted to us from the above facts are:

(1) Well advanced and moribund cases may not react to any of the tuberculin tests.

(2) The Ophthalmic test appears to be the most valuable in certain advanced cases.

(3) The Moro and Von Pirquet tuberculin tests especially may indicate only healed tubercular lesions.

(4) The presence of a positive reaction from all three tuberculin tests is sufficient to warrant a diagnosis of tuberculosis irrespective of physical signs, especially among the insane.

(5) The diagnosis of tuberculosis cannot be based on the result of any one test when considered alone.

In coming to the positive diagnosis of tuberculosis among the insane the entire symptom-complex must of

course be considered in detail; but in the most of our cases where the symptoms and physical signs were obscured for one reason or another, we found recourse to the family history and the application of the tuberculin tests of invaluable aid. Careful investigation of the family history, with special reference to this disease in particular, and into the patient's environment, health, occupation, etc., from early childhood not only often afforded us very suggestive and conclusive facts, but in a degree it enabled us to measure and determine the resistance of our patient. The latter we have found of incalculable benefit in basing our prognosis and treatment. A careful scrutiny of the histories also impressed us with the erroneousness of the popular and widespread idea that tuberculosis is largely due to a mere casual contact and exposure. From analysis of our suspected cases it appeared that a prolonged intimate exposure was a most potent agency in its implantation and propagation.

It is probably because of the latter fact that our efforts at this institution, and elsewhere where a definite attempt is being made to diagnose, isolate and treat the tubercular insane, have been attended with such encouraging and satisfactory results. From our observation the benefits of the isolation of tubercular patients in tents or in small cottages indicated a minimum danger of infection to patients and employees, and a well marked mental and physical improvement. The treatment at this institution consists in endeavoring to improve the general physical condition of the patients by placing them in the open air as much as possible, and furnishing them with the most nutritious food, besides stimulating and increasing the general body tonicity by the various simple hydrotherapeutic and mechanical means at our disposal. In a certain few selected cases we have endeavored to establish an artificial immunity by the injection of minute and increasing doses of tuberculin, with and without an accompanying vaccine, as the case appeared to indicate. It has been our experience that cases running a slow but steadily downhill course in spite of hygienic, dietetic and

open air treatment, improve under tuberculin. In cases where an obvious secondary infection was present the beneficial effects of the tuberculin was enhanced by the employment of a properly selected vaccine.

It must be borne in mind that as a class the tubercular insane present obstacles and dangers not considered or met with in sanitarium work. The tendency to suicide or homicide has to be most carefully watched for and guarded against. In winter undue exposure to the cold is apt to occur through disarrangement of the clothing or through the apathy of the patients, as evidenced by their not complaining even though an exposed part be frozen. It would appear desirable therefore that some special provision should be made for the care of the tubercular insane, even though only a properly equipped camp, ward or cottage be available; there the tubercular condition could be fought with decided advantage during all seasons of the year, and the mental condition could receive the same careful study and treatment which is afforded on the ordinary reception wards. Such a step in conjunction with the early recognition of tuberculosis by methods already described should yield most gratifying and encouraging results.

MENTAL DISEASES OF PREGNANCY AND PUERPERIUM, WITH SOME NOTES ON THEIR TREATMENT.

F. S. VROOMAN, M.B.

Hospital for Insane, Mimico.

Every practitioner has to do occasionally with cases of insanity which occur during pregnancy, and much more frequently with cases occurring shortly after childbirth. On account of the accompanying circumstances such cases are even more than usually distressing. From

the standpoint of the psychiatrist they are perhaps not as interesting as some of the other forms of mental disturbance, but rather of great concern to the attending physician, who sees them in their incipiency and has to decide upon the course to be pursued in their treatment. When one thinks of the great alterations in metabolism and the added labor which is thrown on the various emunctories during the period of pregnancy, it is easy to understand that the nutrition of the brain may be disturbed or that the brain may be, so to speak, poisoned by waste matters which are not eliminated. Then also there is a considerable anxiety before labor, especially in primiparae. These conditions all predispose towards mental disturbance, particularly in individuals whose nervous stability is at no time great, and in those with faulty heredity. We all are familiar with the physiological changes in disposition so often seen in pregnant women whose normal pleasant and cheerful attitude becomes transformed to one of extreme irritability and disagreeableness; while more rarely, on the other hand, the morose and easily irritated individual becomes cheerful and optimistic. Too often these changes pass the boundary of the physiological into territory of the pathological and a true psychosis exists. In fact, in about 7 per cent. of asylum admissions the mental illness develops during the puerperal state and somewhat less frequently during pregnancy and lactation.

Although we speak of the "Insanity of Pregnancy" and of "Puerperal Insanity," there is no especial type of mental disease peculiar to these periods, but there are three or four forms of insanity of which these events are prone to be the exciting cause. This paper will treat almost entirely of the two most common forms. Firstly Catatonia and secondly the Toxic or Exhaustion Psychoses. Manic Depressive Disease is sometimes found but is not very common, nor has it any especial relationship to pregnancy or the puerperium.

If any one kind of insanity were to be termed the insanity of pregnancy it would be the stuperose form of

catatonia. Kraepelin has said that, "The appearance of catatonia during pregnancy is always so common that it is not very probable that it is an accidental coincidence. We must rather suppose that pregnancy, like the puerperium, is very favorable to the development of the disease. It seems to me to be the stuperose forms passing quickly into profound dementia which most readily appear. Parturition has either no influence on the course of the disease or an unfavorable one. This is an observation of great importance, because it will keep us from producing artificial abortion or premature birth in such cases, a measure which is in reality never indicated here."

Passing on to the disease forms occurring during puerperium, we find again most prominent, catatonia. The puerperal state may be productive either of the excited or stuperose form of the disease or, as the attack progresses, the symptoms may alter from excitement to depression and stupor, or *vice versa*. The attack develops generally within a fortnight after delivery. If unrestrained these patients may be in a state of continual activity. They jump, run, sing, slam the doors, destroy the furnishings and assume peculiar and strange attitudes. Their movements are often sudden and impulsive. They will jump up quickly, bang their heads against the wall, throw articles of furniture, pull down the lighting fixtures, or make sudden and unprovoked attacks on those about them. They are also more or less unclean in their habits. This period of excitement may or may not be succeeded by the stupor already spoken of under Insanity of Pregnancy. Often the attack assumes the stuperose form from the beginning. While in this condition the patient sits perfectly quiet with head bowed and hands folded; they often refuse to speak and do not show any attention when addressed. They resist dressing and undressing, and do the opposite to that which they are requested. They even resist the natural impulses. They refuse food, retain their urine, faeces and saliva, necessitating feeding by the tube, catheterization and enemata in some cases. The prognosis is not very hope-

ful—60 per cent. do not improve, but on the other hand dementia supervenes, 27 per cent. make a partial and 13 per cent. a complete recovery. I regard the prognosis as being somewhat more favorable in puerperal cases than in those having other and less definite exciting causes, and being perhaps less acute in onset.

The following case illustrates very nicely catatonia occurring in the puerperal period:

The patient was a young French-Canadian woman whose history showed hereditary predisposition to mental disease, her mother having been insane for a short period. Her mother's brother was a dipsomaniac and another maternal aunt was said to be nervous. She was married at sixteen years of age, and sixteen days after the birth of the first child, about one year later, she had an attack of excitement lasting about one week, during which she was treated by her own physician. She made a fairly good recovery, although it is said that she was somewhat excitable afterwards. In April, 1910, her second child was born and she again became disturbed, the marked symptoms dating from the birth of the child, although she showed some eccentricities during the preceding week. After this event excitement became quite pronounced. She fancied that she was going to be put in a box and down in a black hole. She saw people about her dressed in red, with whom she talked. She also talked in answer to voices which came from the air. She would say, "They think I am foolish, but I am not."

When admitted here in May, 1910, she was fairly well nourished, but appeared exhausted. Her tongue and teeth were coated with sordes. She waved her arms about and talked constantly. She would answer no questions and seemed to have no idea as to where she was, nor did she have any realization of her own condition. She was very restless, and it was difficult to keep her in bed. Her condition fluctuated from day to day, and at times it was necessary to feed her by the tube. After twenty days' treatment she began to take nourishment voluntarily. Her tongue became cleaner, she lost her

dazed expression and commenced to gain in strength. She still talked a great deal and often burst into song. In a month's time the improvement was pronounced, and she was able to go out for a little walk. After three months' treatment she made a good recovery. Her physical condition was good, she was quiet and normal in her conduct, and took a healthy interest in her surroundings. She has remained at home since and all reports are favorable. This is a fairly typical case of short course with a favorable termination.

Treatment.—Bed treatment is always necessary, nurse being other than a member of the family. Unless quite satisfied as to the efficiency of the nurse it is better that patient be removed to a hospital on account of the danger of suicide. Providing the diagnosis of catatonia is correct we may be prepared for a more or less protracted illness. In our hospital insomnia and excitement are treated by hydrotherapeutics and other simple measures, hypnotics and sedatives being almost never used. The continuous warm bath—temperature from 96 to 98 deg. F.—lasting several hours, if necessary, at times has a wonderfully soothing influence, the patient often passing in a comparatively short time from extreme restlessness to calm sleep. If the continuous bath is not effectual, either hot or cold packs are used, and these are always in command of the physician in private homes as well as in the hospital. If the use of sedatives is unavoidable, the dose should be as small as will produce results. Trional or veronal may be given. Occasionally 1-200 or 1-100 grain of hyoscine hydrobromate administered hypodermically or ¼ grain of morphia sulphate are useful. They may be given singly or in combination. Sometimes in very pronounced excitement they are useful in conjunction with the warm pack. The excretory functions must be carefully watched and eliminative treatment is invaluable. It is very important to see that the patient is taking a sufficient amount of proper nourishment. Feeding with the tube is often necessary, and if indicated should be done twice daily, the patient receiving

about two quarts of milk and from four to six eggs in the twenty-four hours. When possible the bed of the patient is kept on the verandah, where fresh air and sunshine prove valuable adjuvants to the other measures.

The second type of disease found most often in the puerperium is, as we have already seen, the Insanity of Exhaustion. The onset is acute, the course comparatively short, and prognosis hopeful if patient be properly treated. Perhaps, indeed, there is no mental disease in which the outcome is more dependent upon the remedial methods adopted. The attack follows as a rule some sudden and pronounced change in the body, as an acute infectious illness, great loss of blood, childbirth and sometimes severe emotional strain. No doubt many cases following childbirth are due to some septic or toxemic condition which has produced such slight general symptoms as to pass unnoticed. Often there are fever and other general indications of the septic processes, which of course are treated if indicated by curettage or douching or medication, as is usual.

Insanity of Exhaustion is divided into two kinds which are much alike in many respects. The first of these is the Delirium of Collapse, a disease of acute onset and severe and rapid course, lasting from a few hours to a few days, and almost never longer than a fortnight. The prognosis is favorable. This form of disease is rather rare, and on account of its short duration patients do not reach our institutions, but are treated by their physicians at home. The attack is generally preceded and characterized by great insomnia. The patient is very weak and ill nourished. The countenance is pale, the pulse of bad quality and the temperature as a rule subnormal. Tremor may or may not be present. Mentally there is great disturbance. The patient loses power of recognition of time, place or person, hears strange voices, sees strange visions which appear to them as in a dream. Illusions are also present. They talk rapidly, continuously and more or less incoherently. Emotionally they may be either elated or depressed. They are destructive and impulsive. After

a prolonged sleep they return to consciousness and convalesce rapidly, although there may be slight relapses.

The second form of Insanity of Exhaustion is Amentia or Acute Confusional Insanity. The causes are practically the same as those bringing about collapse delirium. The course is more prolonged, lasting for some months. The prognosis is favorable, but even after the termination of the attack the patient is very easily fatigued. This necessitates guarding the patient against any unfavorable surroundings for some time after recovery. The physical symptoms are not as marked as in the delirium of collapse. The pulse is slow and the temperature as a rule subnormal. Mentally the patient first shows anxiety and forgetfulness and lack of concentration. After a few days delusions make their appearance. They hear strange voices and see strange sights. They think that their husband is dead, that their children are lost, and sometimes they imagine them to be in the hospital, when they are really many miles away. Their condition fluctuates considerably from time to time, and there may be remissions lasting for a short time in which the patient has a clear conception of her surroundings. The treatment is much the same as in catatonia but here hydrotherapy is much more effectual. The warm continuous bath should be used if possible, or that failing, hot or cold packs. The pulse of the patient should be carefully noted when in the bath or pack and any weakness met in the usual way. Keeping up the nourishment is the most important indication. If the patient does not take a sufficient amount the stomach tube must at once be brought into use, or if contraindicated nutrient enematas are efficacious. If the patient shows tendency to collapse normal salt solution may be given by a hypodermo slysis in the thighs, back, or under the breast. One cannot urge too strongly the importance of supporting the strength, as if such cases can be tided through the exhausting period of excitement and protected from injuring themselves they are quite certain to make a complete and permanent recovery.

In giving the above account of these diseases the classification and description of Kraepelin's text-book have been used as a basis.

AN INTERESTING CASE OF CATATONIC DEMENTIA PRÆCOX.

EDWIN F. JEFFRIES, M.D.

Hospital for Insane, Hamilton.

The following case of Catatonic Dementia Præcox is interesting because of the difficulty there was for some time in differentiating it from Manic Depressive Insanity of the Manic Type. It was only after most careful observation for some time that it was possible to make a positive diagnosis. The history of the case is as follows:

Name—S. G. Age, 36 years; female.

Family History.—Nothing of special interest could be ascertained in regard to the family history. Her father died when patient was quite young. Her mother is living and is 73 years of age. She has two brothers and three sisters living. Patient has stated that she has an aunt in the Toronto Hospital for Insane.

Personal History.—No reliable information can be obtained regarding her life until the onset of this psychosis. She is said to have b[illegible] a good, steady worker and of a pleasant disposition. She was mild in her manner and never perverse or contrary. The lady of the house where patient worked as a domestic in the City of Hamilton informed me that patient was a splendid worker and always very reliable about the house. She was always very conscientious in the performance of her work as housemaid, doing everything thoroughly and always acting in a respectful manner.

Present Illness.—Shortly after Christmas, 1910, she began to speak about God punishing people whom she

thought were not doing right and the punishments of hell were frequently mentioned, but her friends did not think much about this. About the latter part of March she began to complain of physical trouble and said she was not well. She had apparently not been in good health since the New Year. Her appetite failed and she became thinner and did not sleep well. The other maids in the house had noticed changes in her since the New Year, but when she would meet the mistress of the house she seemed quite normal. Her mental symptoms varied from time to time, but usually she was depressed, reticent, seclusive and very irritable if crossed or contradicted. Her memory and judgment became poor and, as she expressed it herself, she became "very much twisted." The mental changes were at first slow, but they have progressed quite rapidly since the first of April. During March she became quarrelsome with the other maids and latterly did her work mechanically and would sometimes do the same thing over twice. Her speech at times was rude and even boisterous. She began to complain of other people accusing her of things she had not done. She felt that her mistress had lost confidence in her, although she had no reason for such an idea. At times she exhibited some twitching of the muscles of her face. She gradually became somewhat untidy about her person, whereas formerly she was always neat and clean. Frequently she refused to answer questions and when she would answer she wandered away from the subject and mentioned things not at all called for. From the information available it would appear that she had at that time hallucinations of hearing and heard voices talking to her about punishment for sins, and about hell. She had at that time some suggestion of flight of ideas, as shown in her answer to a question as to how she was feeling. She said, "I don't know whether I am a devil or an angel." At another time she said, "One would have to go back two thousand years before Christ to find an answer." On April 4th she was sent to the General Hospital in Hamilton, but became steadily worse. The

nurse at the Hospital stated that the patient would call out loudly and make considerable noise at night, and when she would go to her the patient would say that she was quite comfortable. She would ring the bell violently for no apparent reason. She soiled the bed involuntarily on several occasions. When asked questions she said she did not have to answer. When asked her name she said that it was " any blamed old thing." She could not state how long she had been in the Hospital, and was very irrelevant in all her conversation. The nurse stated that the patient was very restless and required hypnotics each night to produce sleep. She was very resistive while at the Hospital.

History Since Admission.—Patient was admitted to the Hospital for Insane at Hamilton on April 14th, about 10.30 a.m. She was not very clean and had soiled her clothing, but she was easy to manage. She told the nurses that she had cancer in her throat, that she was a Presbyterian but would like to become a Roman Catholic. She would not feed herself, and so had to be spoon-fed. She was quite stupid the first day; said she had come from some Hospital. The next day she would not do anything for herself, and was very filthy in her habits and stubborn, and would not do anything she was asked. She was given a hot pack, but it was difficult to keep her in it. She did not seem to understand anything said to her. She would laugh and shout a good deal during the day. On the 16th of April she helped herself somewhat and took some food. On the 19th inst. she ate her food fairly well but had to be coaxed. She coughed considerably and raised a fair amount of sputum. At ten o'clock on the morning of April 20th her temperature was 102, pulse 84, respirations 20. She was quite excited all day and was expectorating a good deal. On the 21st inst. her temperature was again 102 in the morning, but dropped to 98 during the day and has not beer up since. She was singing and shouting every day at this time and throwing herself about in every direction, breaking crockery and upsetting food brought to her. She had to be

fed most of the time. Her sputum was examined for tubercle bacilli, but was found to be negative. She was given Veronal gr. x. every night for a while to quiet her, and with some success.

An example of her conversation at this time is given in the following. Patient says she was born on Jan. 9th, 1876. She then rambled on about as follows:

"Duncan Fisher—Marjory Braithwaite—my dear daddy is my sole sweetheart. I never had a fellow—will you say the opera girls or the nurses are the doctors? For the jerry, for the merry, for the p.p. pot. Wilfrid Laurier is Dr. McLennan's son still. For a whole pipeful, bottle and smoke to be put back there—for a jim, for a joe, for a feedy, furry, big sponge—for a katy-did—for a drink for all kinds—for fancy free—for a caustic soda cup, for my dear daddie—for my dear boys—for my dear boy's fancy tears—for a bubs-subs-jubs—for my old fancy."

During the above oration patient made all kinds of grimaces. At times she would hold her mouth wide open with the four fingers holding the sides of mouth, or with one finger in the top and the other opposite, and would roll her tongue in various positions. She kept twisting her face in various ways, and would occasionally laugh as if she realized that she was talking silly nonsense. Shortly after this patient began to be quieter and showed improvement in many ways.

Mental Status on May 17th was as follows: She will not converse with any degree of satisfaction at all. She has for the past two weeks been somewhat depressed.

Orientation is somewhat disturbed, particularly for time and place. She was for some time after her admission very dirty about her person and filthy in her habits, but lately she has improved considerably in this regard.

Her retention is very poor. Her memory is very poor both for recent and remote events.

Her attention is with difficulty gained and at present cannot be maintained or directed.

She has a peculiar mannerism of facial expression while talking; she smiles and moves her eyes in a rolling manner from side to side and twists her face and mouth at the same time. She has lately developed some stereotyped movements in which she strikes herself either in the face or on the chest and then twists her hand in a peculiar manner and at times points towards the wall. She has passed through several periods of excitement. She does not at present perform any impulsive acts such as those mentioned in the above history when she would break dishes and throw her dishes away.

Her critique and judgment are apparently lost. At present she has no insight into her condition, but there was a time when she had, and she would say that she was twisted. There is no volitional disturbance.

Physical Examination.—Patient is a woman of rather slight proportions, being 5 feet ¾ inches in height, and weighing 102 lbs.

Lungs.—Right lung presents some dulness over upper part and some fine crepitation on deep inspiration.

Heart.—Normal.

Abdominal palpation.—Reveals nothing abnormal.

Eyes.—Pupils regular and equal and respond to light and accommodation.

Superficial reflexes normal. Knee jerks are slightly exaggerated.

Urine.—Normal.

Conference Report.

Case presented at Staff Conference by Dr. Jeffries on May 19th, 1911, as a case of Catatonic Dementia Praecox. The consensus of opinion favoured the diagnosis, but the question was raised as to whether the case was possibly one of Manic Depressive Insanity of the Manic Type, the point of discussion being as to whether she had any hallucinations, but as mentioned in the history above, information obtained from the house where patient

worked as a domestic proved beyond a doubt that she had hallucinations of hearing for some time before she was admitted to this Institution.

Present.—Drs. English, McNaughton, Webster, Childs and Jeffries.

To distinguish the excitement of the catatonic from the excitement of the manic phases of manic-depressive insanity is in many cases a difficult task. In the catatonic excitement the clouding of consciousness is less marked than in the manic excitement, the patient being partially oriented even in the greatest excitement, while in the extreme manic states there is complete disorientation. The catatonic speech abounds in verbigerations such as given above in the senseless rhyming spoken by our patient. The emotional attitude of the manic is exalted, frolicsome and irritable, while that of the catatonic is silly and childish. The movements of the catatonic are purposeless and frequently repeated, while in the manic one finds pressure of activity and the movements are always purposeful and dependent upon ideas, impressions and emotions and always appearing in new forms. In catatonia the excitement in speech and that in movement are not equal as a rule, because the patient may be very productive while lying quietly in bed or he may be quite active and not utter a word. Another important point is that the increased activity of the catatonic is more apt to be limited to his immediate surroundings, while that of the manic is limited only by his confines; and further, the individual movements of the catatonic tend to be mannerisitic and unnatural and associated with silly impulses, while those of the manic are more natural and comprehensible.