INSANITY IN CHILDREN.*

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This presentation deals with mental disease in children exclusive of choreic, epileptic and hysterical insanities, juvenile paresis, syphilitic dementia, and the idiocies. Dementia precox is also excluded, as the cases to be referred to, in the main, concern children under 15 years of age.

At first sight insanity in children would appear to be a rare affection, indeed Hagen¹ stated that it occurs in one in every 72,752 inhabitants only. Ireland believed that it was so uncommon as to make it very difficult to generalize about it. But the study of the literature forces one soon to the conclusion that there is "nothing new under the sun" after all, for Coelius Aurelianus as long as 1400 years ago described mania in children. The earliest recorded case since then is that by Berkham² who in 1750 observed a case of melancholia in a girl of eleven. Greding³ in 1790 also published a case of insane fury in an infant of 9 months of age, and in 1794 Perfect quoted by Gottgetren⁴ described a case of depression followed by mania in a lad of eleven.

Delasiauve in 1852 was the first to describe mania in children according to Moreau,⁵ who himself stated that among the mental affections of childhood mania was the first to which the attention of the authorities had been called.

I have studied exhaustively the literature of insanities in children and have collected 44 cases which seemed to be worthy of citation. Considering the importance of the subject there has been less consideration given to the study of psychosis in childhood than the subject deserves.

The rareness of youthful cases in asylums is well known. This is probably due to the fact that the children afflicted with psychoses

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are more readily treated at home than adults, for the reason that the duration of the attack is shorter than in adults, as well as for the fact that the symptoms are less severe.

A study of the cases reported by me and quoted from the literature will show that, outside of a few cases of post-infectious mental states, the usual type of mental affections in children is the manic-depressive form of insanity. While in my own experience, the usual form of psychosis is the manic type of manic-depressive insanity, of thirty two cases collected from the literature thirteen were of the circular form, eleven of the manic form and eight of the melancholic type. The circular type or, as it has been termed by Baillarger⁶ in 1854, folie à double form, was described by Lunier⁷ and others, and was recognized by Moreau in his work in 1888. Melancholia has generally been supposed to be rare in children. Eminghaus⁸ had never seen an instance of periodic melancholia, though in 199 cases of insanity in children there were 24 cases of melancholia.

Besides these types of insanities, there are a number of cases, fairly common in my experience, of psychasthenia, in which the affection is characterized by mental instability, depression and excitability associated with phobias and hypochondriasis.

The infectious psychoses are well known, though I do not believe are of common occurrence. I found only twelve cases quoted in literature after a careful search. Spitzka⁹ found 7 per cent of his cases sequellæ to fevers. The post-febrile insanities of children, according to Ireland, are often found associated with hereditary predisposition.

Alexander¹⁰ believed that 10 to 30 per cent of the infantile insanities were attributable to the acute diseases of childhood, especially the exanthemata.

Cases of insanity in children have been described following scarlatina (Ireland,¹¹ Welt,¹² Gerlach,¹³ Joachin¹⁴), diphtheria (Kuhn¹⁵), pertussis (Mischede¹⁶), typhoid fever (Welt, Jensen,¹⁷ Jordan,¹⁸ Feith,¹⁹ Nierier²⁰) and a cold during malaria (Hume²¹). In six of these cases hallucinations were observed, six were excited and agitated, one was depressed and had obsessions and one exhibited a stuporous state.

Except in the post-infectious insanities, hallucinations and delusions are not common, the symptoms consisting of either simple

depression or excitement. There were seven cases that exhibited hallucinations, two of which were cases of melancholia and only three were delusional, and one of these a case of melancholia. Systematised delusions do not occur, according to Kraft-Ebing," and Ireland stated that fixed ideas and delusions are not common. The older the patient, or the more nearly he reaches 16, the more likely is he to become the subject of hallucinations and delusions for obvious reasons.

The youngest case of insanity in children on record is nine months. Of forty-seven cases collected by Berkham² there were 10 cases under 5 years of age, and most of the remainder occurred between 10 and 11 years of age.

Of thirty-nine cases collected from the literature by myself, including my own seven cases and exclusive of the infectious psychoses, there were fourteen under 10 years of age and twenty-five between 10 and 16.

CLASSIFICATION OF CASES AS TO AGE OF ONSET.

5 years.....2	11 years.....4
6 "2	12 "1
7 "1	13 "9
8 "1	14 "3
9 "3	15 "5
10 "5	16 "3

An interesting question arises in the study of these cases: What bearing has insanities during childhood upon the future mental health of the individual during adult life? It is to be noted that all the cases recover from the attack; few with any perceptible mental damage. We may well ask whether these attacks are not the forerunners of more serious attacks in later life. A case has only recently come under my observation which throws some light upon this question. A girl of 15 had obsessions at 3½ consisting of an impulse to kiss soiled objects, such as dirty boots and the seat of the water closet. From this she recovered and at 6 developed a psychosis after tonsillitis which lasted nine weeks. At 15 she lost interest in things, did things less well than formerly, was careless, became cross, unstable, depressed, readily fatigued, sleeping poorly and was apathetic. These symptoms are danger signals in a case with a psychopathic history and it is just this sort of a case which

needs wise care in order to prevent a recurrence of a psychosis.

The first case to be reported is interesting not so much by reason of the symptoms he presented, but on account of the fact that periods of excitement were regularly followed by a depressive state, usually with a period intervening in which the boy was perfectly normal, therefore being an example of the circular type of manic-depressive insanity.

George V., A boy of 15. Healthy parents. A grandmother's cousin died insane, and a second cousin was insane at the time of his death. There is no history of other mental or nervous disease or of tuberculosis or cancer.

George, the patient, had always been healthy except for an attack of diphtheria at 8 years of age and two attacks of erysipelas three years previously, and an attack of measles in childhood.

He was what his mother termed a sensitive child and his feelings were always to be considered a good deal. He was a good boy, was companionable and was said to be a leader among his playmates. On account of the attacks of erysipelas he had lost time at school and in the spring of 1912 he was pushed in his studies in order to pass his examination in the eighth grade grammar school.

In July, 1912, his mother stated that he began "to have something on his mind." He was very depressed, self-accusatory and considered himself very wicked. He practiced masturbation and was very depressed over this, attributing his condition to this habit. He went to bed for three weeks, complaining of insomnia, of general languor, and aching of his limbs and body. He worried continually over the wrong he had done and believed that he would never get well. At the end of five weeks these symptoms cleared up and he seemed to be normal for about a week, whereupon the symptoms recurred, and he went to bed again. During this attack he was circumcised and took osteopathic treatment.

At the end of two weeks he became exhilarated, thought of and talked about wild Indians and the things he had seen in moving picture shows, wished to buy guns and to run to stores. He began to steal things not especially useful to him or for which he had any special need, acknowledging the thefts and giving no satisfactory explanation of the act. He was in this attack very active, talking a great deal and distinctly excited. At the end of a week these symptoms subsided and a period of depression occurred which lasted from the middle of September to November 1. He then again became excited, packed his clothes and said he was going to leave home because the family could not trust him. He intended to become a hermit. This phase lasted two weeks, to be replaced again by a period of depression. It was while in this condition he came under my care on November 24, 1912. At that time he was depressed, looked unhappy, confessed to masturbation, which he considered a great sin and responsible for his illness; believed he was wicked and thought he could not recover.

He was readily fatigued, complained of general aches and persistent occipital pain.

His memory was poor; he said he did not know clearly what he was doing and had difficulty in concentrating. He was underweight, pale, his appetite was poor, his tongue was coated and tremulous. He complained of indigestion and was constipated. The examination of his heart and lungs was negative. The knee jerks were sluggish, his station good, his pupillary reactions normal. The dynamometer registered 46 both on the right and left. Urinary analysis revealed nothing abnormal.

He remained depressed from November 24 until December 5, when he became again excited. He sang or talked constantly, was exhilarated, happy, careless, purloined things from the closets and the nurses' bags, knocked on the doors of adjoining rooms, kicked around in bed, pounded on walls and wrote obscene letters. This period lasted 18 days, to be replaced by depression for 10 days. There then followed an interval in which he was perfectly normal for 14 days.

Periods of depression lasting about 10 days were followed by periods of excitement of the same duration, a period intervening of about a week to 10 days, in which he appeared perfectly normal.

Under treatment he improved, the symptoms during the attacks becoming less marked, and finally in June, 1913, he became normal most of the time and remained so for a few months. I have learned recently however that the symptoms returned. In the last 7 weeks he appeared to be normal again; is at a military school and from all reports is doing well.

The second case illustrates the manic form of manic-depressive insanity, with tendency to recurrences.

Joseph L., aged 9, applied for treatment January 25, 1905. There was no history of nervous diseases or insanity in his ancestors. The patient himself had measles at 3, typhoid fever at 4, and whooping-cough at 6.

Joseph was always bright, acquired readily, was fond of reading, was really precocious in his literary tastes, devouring Shakespeare's plays voraciously at the age of 9. He was, however, always somewhat irritable.

In November, 1904, two months before coming under my care, his teacher asked his mother to take him from school because of his bad temper, which was provoked by any attempt at discipline. On one occasion he took off his shoe and attempted to beat his teacher. When I first saw him in January, 1905, he was anemic and somewhat under weight. His physical examination was otherwise practically negative. The reflexes were normal; there were no sensory or motor troubles, and his pupillary reactions were normal. He was astigmatic and hypermetropic, but the eye grounds showed nothing amiss. His memory was good; there were no delusions or hallucinations; he was perfectly oriented and he concentrated well. His expression was rather excited, his eyes were shifting and he was physically restless. He was also somewhat resistive and it was necessary to exercise considerable care in talking to him in order to avoid arousing his antag-

onism. His mother informed me that he grew tired readily and that he was always more difficult to control at the end of the day; also that he was very quick tempered and had always to be handled with great care. I took him from school, advised rest, baths and increased amount of food and tonics, with the result that considerable improvement in his condition ensued. He was very much improved at the end of three months. He remained fairly well until June, 1906, although during this interval of a year there were occasional lapses, consisting of violent outbreaks at the end of the day, usually connected with some incident relating to his mother, but most of the time he was controlled.

In June, 1906, he became very excited, having periods every day of excitement, in which he would become profane, throw pillows and bolsters downstairs in anger and seemed to be in a very high temper. This subsided at the end of a few days, but there were recurrent similar attacks until November, 1906. From then until Christmas, 1906, he was in a very good condition. Then, however, he began to be excited again and was violent, rolled around on the floor, was bad tempered and profane. These symptoms persisted and on February 7, 1906, he got into an altercation with a man and boy on the street and afterwards he became very excited, cursed and complained to God for causing his condition. He said "God does not give me any show." "Why should he punish me so?" "I would be a great deal better dead." I sent a nurse to him, and gave him a partial rest cure. At first he was very violent, very abusive, and threatened to kill his mother and himself. He said to his mother, "You ought to go up an alley with a man," and made similar obscene statements. He was very resistive, refusing food, medicines and treatment. He attempted to choke his mother on many occasions, kicked his nurse repeatedly, rolled around in bed and swore at her. This attack lasted about two months, at the end of which time he gradually improved.

He returned to school in September of that year and remained at school until one year ago, having spent two years in the West Philadelphia High School.

Since a year ago he has taken two or three positions as a clerk. He did not care much for the work, but said he preferred the life of a teacher or a newspaper man. He was apparently normal until July, 1913, when he awoke with a headache one morning and remained out of work that day. His mother dates his present attack from this time. Joseph himself believes that the present attack began on the 6th of August, 1913, although he remained at work until the 14th of September, since which time he has not worked. He states that he has been fighting the thing off ever since the 6th of August. He could not keep on with work because he "got all balled up." He was quiet, somewhat depressed during the autumn and he showed no violence until January 1, when he broke a sink when irritated over some clothes that he had bought that did not fit him. Four days later he refused to get up in the morning, kicked the walls of his room, swore and shouted out loudly, calling his mother names and swearing at her. On the 8th of January, at 4 p. m., suddenly, without provocation, he said to his mother,

"Damn you," and broke a flower pot, then ran upstairs and broke things up. He later asked for coffee and said, "Make it damn quick."

In the evening started to go out, saying to his family they would never see him again. In trying to restrain him from going out a struggle ensued, in which he smashed a couple of doors and engaged in a battle with his brother. Officers were summoned and he fought them, but was finally subdued and taken to the station-house, where the police surgeon communicated with me and by my advice he was sent to the detention ward at Blockley. He was transferred from Blockley to the Pennsylvania Hospital for the Insane at the end of two weeks time, where he has remained ever since. Since his admission he has been very quiet and orderly. He does not recognize his condition or that he behaved in an abnormal manner, or at least does not admit it.

Katharine G., aged 16, illustrates the manic type. She has a colored father and a white mother, both of whom were well. The family history is negative. There is no history of insanity or nervous diseases. Katharine had the usual diseases of childhood, menstruated at thirteen and was regular. Her present trouble began shortly before her visit to my clinic at the Polyclinic Hospital July 10, 1911. She became restless, slept poorly, dreamed a good deal and was very absentminded. She was disorderly, frequently arose at 3 a. m. and went out of the house, or during the day wandered into other people's houses. She was very cross and disobedient. She heard people talking about her and conversed with the voices. She made fists and struck at people. She believed that the neighbors called her all sorts of names, and she wanted to fight them. Their house was the only decent home in the court.

Katharine was a girl of average height and development. There were no palsies, the tongue protruded straight and in the median line, the station was good and the knee jerks were equal and normal. The examination of the heart and lungs was negative. She gradually improved and at the end of a month the hallucinations and delusions had entirely disappeared. She was still well a year later, at which time she had been working for some time.

The fourth case is one of the manic type.

Vincent W., aged 12, was admitted to the Philadelphia Polyclinic Hospital November 30, 1911. Both parents were living. The father had had a chancre and the mother had had two miscarriages. Two brothers died in convulsions about one year of age, but otherwise the family history was negative. Vincent was born at term without instruments. When three years old he fell from a shed and struck the back of his head, but was not rendered unconscious. At the age of 8 he had a convulsion, but none since.

About a month before his admission he began playing truant, was inattentive at school, and silly in his conduct. He would twitch his face and draw on his desk. He was constantly thinking of cowboys and Indians suggested by moving pictures. He played in a tent in the yard constantly

and decked himself like a cowboy. He hid himself in the cellar and was found lying prone on the ground, apparently deep in some cowboy adventure. He was seen to draw a sharp knife over his sleeping sister. His expression was wild, his eyes restless and staring. It was difficult to hold his attention and he was physically very restless, thrashing around in bed and was kept in bed with some difficulty. He complained of frontal headaches associated with some nausea, dating since the onset of his mental symptoms. His appetite was good and his bowels regular. He was thin and anemic, but slept well. The station was good. The pupils which were widely dilated reacted normally. The extraocular movements were intact and he had hypermetropic astigmatism. The knee jerks were normal, and there was no ankle clonus or Babinski phenomenon. The examination of the heart and lungs showed no abnormality. Vincent gradually recovered and was discharged cured at the end of a month.

Samuel S., a Hungarian, aged 16, illustrates a mild manic type. He came to the clinic of the Polyclinic Hospital, April 12, 1912. There was no history of insanity or nervous diseases. He had had measles, but otherwise had not been sick since birth. He went to school until a year previously and had done well.

His present trouble began three weeks before his visit to the hospital. He awoke excited in the middle of the night and thought that the house was on fire and that a man was robbing the house. The next day he was confused in his speech, was difficult to control and was excited. Upon examination he was confused and incoherent. His replies to simple questions consisted of merely articulating a letter of the alphabet. For example, when asked where he lived his reply was "M." He could not sleep and wandered around in an excited manner.

The physical condition was fairly good but he was somewhat thin and anemic. The tongue was protruded straight and in the medium line and was coated. His hands were cyanotic and cold. The station was good and the knee jerks were much increased and equally so on both sides. The physical examination was otherwise negative. He was admitted to the wards, but was so disturbed that it was impossible to take care of him on account of his excited condition and he was taken to his home the next day. Under treatment at the end of three months his symptoms disappeared and he was able to go to work. He was still well at the end of nine months, since which time I have not seen him.

W. N., aged 13, applied to the Philadelphia Polyclinic Hospital April 13, 1914. This case is an example of transient brief maniacal attacks. The father had had an apoplectic stroke; was living and was not alcoholic. The mother was asthmatic. There was no epilepsy, tuberculosis or insanity in the family. William had six brothers and a sister living and well. He had had convulsions when a baby and chorea three years ago. He was bad tempered as a child. He was perfectly well until four weeks before applying for treatment, when he began to act strangely. There was first a feeling of sleepiness and a sensation as if the blood had rushed to his

head and he acted as if in a temper. He remained at school until two weeks ago. Five days previous to his first visit he fell unconscious and frothed at the mouth. Three days later he became very excited, talked loudly and swore. He used obscene language, threw things at the members of the family, broke up furniture, threw knives about, and tried to jump from the window. This condition appeared without provocation and lasted for about two or three hours. The following day he had a second attack of a similar nature. The family said that in the interim he did not want to go out to play as usual and sat with his head bowed forward and was very quiet and talked very little. He said to his family that he wanted to run away and drown himself.

Upon examination he stated that he was very unhappy. No delusions or hallucinations could be elicited and he was perfectly oriented. He had, however, no memory of the attacks of excitement. He was mentally sluggish and unable to describe his sensations or his feelings. He complained often of vertical headache and slept poorly, sometimes remaining awake all night. His tongue was slightly coated and teeth indented. His pupils were equal and reacted to light and inaccommodation. His hands were cold and somewhat cyanotic. His pulse rate was 120 and his heart sounds were perfectly clear, but the tension of the pulse was high to the finger touch. The knee jerks were increased, but equal on both sides. His face had a somewhat anxious expression and was pallid. I admitted him to the wards and placed him on the rest treatment with bath, massage, and forced feeding. He improved rapidly, became cheerful and alert, and was discharged to the out-clinic at the end of three weeks. I saw him a few days ago, and he was still well.

MELANCHOLIC TYPE.

E. W. is one of two cases of pure melancholia in my series. She was 11 years old when she applied to the Neurological Department at the St. Agnes Hospital on February 17, 1898. Her father was subject to nervous headaches and her mother was living and well. There were five other children, all of whom had had spasms, except one, during teething. One of her brothers at the time of his death was epileptic and insane. The patient herself was a 9-month child and was born without accident; was breast-fed, walked at 12 months and talked at 14 months. She had had scarlet fever eight years previously. Her chief complaint at the time of applying for treatment was epileptiform attacks, dating two years previously. She has had one convulsion at 2 years of age and one again at 4. Since November, 1896, she has had five or six grand mal attacks a year with numerous petit mal attacks.

Her physical condition was fairly good. Her tongue was coated; her teeth were good and her palatal arch was high. The knee jerks were exaggerated and equal on both sides. The station was good. The heart and lungs were normal. She had no scars on her head and there was no history of her having had an accident. An examination showed absence of

any source of reflex irritation in her nose and her vision was properly corrected.

She was clever at school and was normal, cheerful and good-natured.

In 1898, when she was 12 years old, while listening to instruction for her first communion she became very much depressed. She was very unhappy; felt that she had been guilty of committing many sins. Every act she interpreted as a sin. The depression was very much worse upon awakening. She was much absorbed by these depressive thoughts and did not recognize at the time that they were delusions. These symptoms lasted about a month, when the depression cleared up entirely. Incidentally the epileptic attacks diminished gradually in frequency and in 1904 ceased entirely.

Morris F., aged 13, the second case of melancholia, applied to the Polyclinic Hospital February 16, 1914. Family history was negative. There had been no history of insanity or epilepsy or other nervous diseases. The patient had had measles, but had otherwise enjoyed good health. He was clever in his school work, having reached the Fifth Grade A.

His present illness began in June, 1913, when he was struck by a baseball over the left eye. He was not rendered unconscious and was able to leave the hospital in a day. He has been nervous and restless ever since. His father stated that he acted in a stupid manner; he slept very poorly; complained of headache, especially at night, and in the three weeks prior to his going to the hospital had dizzy spells. Two months ago he fell unconscious to the floor, but did not have any convulsion. Recently he became very much depressed, refused his food and did not play with his companions, sitting around the house all day long, voluntarily making no remark to anyone.

At the time of the examination he was apparently very much depressed. His face was expressionless, his eyes were fixed in one direction and he could be aroused from his reverie only with great difficulty. He denied hallucinations of hearing. He did not know why he was depressed or what he was worrying about. He mumbled his replies to the questions of the examiner, blinking his eyes and giving indefinite replies. He never smiled and said that he felt sad and was sick at heart. At times he would walk constantly around the house without any object. This patient is still under observation, having improved very considerably, though he had not entirely recovered when seen last.

In a thorough search of the literature available I collected forty-four cases which seemed to have been recorded sufficiently carefully to warrant quoting. These cases can be divided into the manic-depressive type, including the circular, manic, and melancholic types, post-infectious psychoses, and one case interesting as illustrating a precox type of psychosis which is not readily classed. These cases have been described briefly, but in sufficient detail to preserve the characteristics of the symptomatology.

CIRCULAR TYPES.

CASE 1.—Gottgetren. Male, aged 10. Heredity untainted. At 7 concussion of the brain, followed by failure of memory. Two days later unruly and restless, followed by a period of depression. Sent to an asylum. Hallucinations of voices in his abdomen, also of sight. Fears he will be killed and believes that a patient removed one of his ribs. Recovery in about one year.

CASE 2.—Von Brero. Male, aged 13. Family history of insanity. Unusual behavior attributed to naughtiness first, then suddenly developed delusions that the neighbors were plotting against him and heard voices from the next house conspiring against him. He was going to be murdered. Became restless, profane and threatening, at times depressed. Sleep restless and fitful. Refused solid foods and wet his bed. Symptoms associated with movements like oscillations more or less regular and choreiform in type. A period of exaltation was followed by a period of depression. Excited periods were characterized by maniacal conditions, the depressed periods by stupor, confusion, hallucinations and atony. Choreiform movements were present only during stuporous periods and were intentional. The periods varied from six to twenty days and followed close upon each other. Cured in about one year.

CASE 3.—Zimmer. Female, aged 9. Insane history. At the age of 8 suddenly would whirl companions around in a dance and would leave the class-room for no reason. Said she had been accused of stealing; was infested with vermin; was unhappy and threatened suicide. Was admitted to Mendel's Clinic, where she showed symptoms of manic excitement alternating with melancholic depression, with at times periods of comparatively normal conditions intervening. Results not stated.

CASE 4.—Hahn. Male, aged 10. Acute mania following a blow. No heredity. Intelligent before. Was struck by a cane on the left frontal and parietal region. This was followed by pains in the head and a sensation as though the head was soft at the point of blow. Five days later he was listless and apathetic. Sensations of terror around the heart and hallucinations of sight and sound developed. There was self-reproach delirium, accompanied by right facial twitching, rhythmic opening and closing of the mouth. There was a manic condition, followed by depression. The next day the condition was aggravated by irritability. Struck his mother and barked like a dog. There was verbigeration. Cured in three months.

CASE 5.—Wells. Female, aged 15. Negative heredity. At 14, after hard work at school to secure a prize, developed melancholic depression; insisted upon having her dresses very short and ate little so as to retard development. Demanded a tight corset to compress her chest and thus prevent normal development. If opposed became violent. In another month chorea symptoms intervened for two weeks, but returned again in two months with other symptoms becoming more pronounced. She screamed violently and talked incoherently; exhibited hallucinations of sight; refused food, and reproached her mother for leaving her. Could not sleep. Seven months

later she improved very much, but the symptoms returned in a month and she had to be removed from her home on account of being so noisy. She improved at the end of a year and eight months from the beginning of the disease and remained well.

CASE 6.—Tremoth. Male, aged 14. Heredity positive. Normal before onset. Became reserved and apathetic and listless, refused to take food and lay perfectly listless; incoherent and mumbling. Later state of fear and tremor; loud inarticulate words for a day or two. Later he suddenly became lively, unruly, destructive, but still mute for an hour. This was repeated on two other occasions. Recovered in three months.

CASE 7.—Tremoth. Male, aged 13. Mentally deranged. At the age of 12 began to have hallucinations and feared that someone was going to hurt him. These attacks of fear recurred every eight weeks. During the interim periods of unwonted hilarity and sprightliness. Cured at the end of a year.

CASE 8.—Lehr. Male, aged 9. No heredity. Under strict supervision of studies there developed fear and melancholic depression, followed by states of excitement and rage, stubbornness and unruliness. Recovered completely.

CASE 9.—Esquirol. Female, aged 8. Normal intelligence. Sustained a severe shock during the storming of Paris and showed signs of mental disease. There were states of somnolence, alternating with unruliness, noisiness and vulgarity.

CASE 10.—Esquirol. Male, aged 15. Illegitimate. Heredity taint. Sudden violence and incessant talking, alternated with periods of misery and depression. Improvement finally set in.

CASE 11.—Ray. Female, aged 14. First symptom loss of memory, then became violent and uncertain, refusing food; dirty and untidy. She moaned piteously. Later she became self-absorbed so that she failed to understand the simplest orders. She recovered.

CASE 12.—Nasse. Female, aged 15. Poor heredity. Began with melancholia at 14 and developed into periodic mania.

MANIC TYPES.

CASE 13.—Fletcher. Female, aged 5. After being threatened with being shut up in a closet and having heard tales of dark places where witches live and the like, was very much frightened and became pale and cold and for months thereafter raved and muttered about hobgoblins. When she recovered she was very much changed.

CASE 14.—Fletcher. Male, aged 15. Intelligent. Suddenly became profane and began to talk incessantly of himself; smoked cigarettes excessively and boasted of his capacity for strong drink and his success at cards and his escape from hairbreadth adventures. He believed that he was a detective. Recovered.

CASE 15.—Fletcher. Male, aged 10. Neurotic parents. Imagined himself an Indian and was uncontrollable, attacking his parents and shooting at

them with arrows. He wandered in the woods at night. He had attacks of convulsions which lacked the elements of epilepsy. Recovered.

CASE 16.—Holmes. Male, aged 13. Heredity negative. After a quarrel with his sister became very much excited and threatened violence against his mother and himself. At first he was mischievous, singing and whistling and talking incoherently. He regained his normal tone in ten days.

CASE 17.—Holmes. Male, aged 10. Average intelligence. After a fall, in which he fractured his humerus, seemed to be too happy. He was irrational and showed flurries of excitement and talked excessively about his accident. Normal in four weeks.

CASE 18.—Holmes. Female, aged 7. Average intelligence. Negative history. Suddenly began to talk excessively, rhymed and commented constantly on what went on around her. Her attention was gained with difficulty. She exhibited much motor excitement. Cured in six weeks.

CASE 19.—Liebers. Male, aged 5. No heredity. Following diphtheria at 4 was unable to talk or walk for six weeks and then became restless and destructive, refusing to eat or sleep. Stands up in bed and laughs gleefully and throws his arm affectionately around the doctor's neck and then throws himself back in bed again. Violent motions and grimaces in a perfectly tireless manner. Attention could not be gained without great effort. Duration one year, followed by cure, although feeble-minded.

CASE 20.—Schuller. Male, aged 6½ years. Well until one year previously, then an indefinite fever lasting about a week. Then began to act strangely; talked to himself for hours; refused to eat; lost control of his functions; could not talk; countenance smiling and walked with a peculiar hop. Some improvement.

CASE 21.—Engelhorn. Male, aged 11. Became violent and excited after an explosion in the garden of his home which caused the death of his brother. Symptoms lasted only a short time.

CASE 22.—Steiner. Male, aged 6. Showed periodic mania. There were periodic paroxysms of rage requiring strait-jackets and opiates. Result idiocy.

CASE 23.—Holmes. Male, aged 13. Heredity negative. After a quarrel with his sister became very much excited and threatened violence against his mother and himself. At first he was mischievous and singing and whistling and talking incoherently. He regained his normal tone in ten days.

DEPRESSIVE TYPES.

CASE 24.—Noyes. Male, aged 13. Heredity negative. Mental depression and crying spells. He said his fellow pupils did not like him and accused him of onanism. Some choreiform movements, but not chorea. Cured in two years.

CASE 25.—Noyes. Male, aged 13. History negative. Restless, crying spells, anemia and insomnia; talked obscenely to his mother. Complained of being abused by the other boys. Mental depression, everybody was making fun of him. He became hyperesthetic and complained of globus hy-

stericus. Some choreiform movements, but not chorea. Cured in six months.

CASE 26.—Beach. Male, aged 14. After attending a funeral of a friend who had committed suicide said, "I must kill myself, too," and seeing the cord at the place of the suicide proceeded to take his own life.

CASE 27.—Ireland. Female, aged 11. Melancholia. She had nose bleeds appearing with attacks of loud wailings. Heredity and alcoholism were emphasized as predisposing causes. Recovered in a year.

CASE 28.—Fletcher. Female, aged 13. After the death of her mother was sent away to school. On her return from vacation she became melancholy and refused to work, spending most of the time in a semi-conscious condition in bed. She told a neighbor that she was pregnant and that her father had seduced her. Father later became insane, but the patient apparently recovered at the end of four years.

CASE 29.—Tremoth. Male, aged 16. Uncle insane. Intelligent and normal previously. Suddenly grew quiet and avoided seeing people and was hallucinatory. He lay with his eyes closed, refusing food, and was full of unaccountable terrors. Cured in six months and remained normal.

CASE 30.—Savage. Female, aged 11. Intelligent. Became very religious at 10, seeing angels and communing with them. Began to menstruate then. Then lost faith in religion and attempted to kill herself. Intense likes and dislikes, with precocious tendency towards the other sex.

CASE 31.—Gregory. Female, aged 10. Negative heredity. Normal child. After a disappointment became sad and quiet; complained of headache and refused to eat. Upon examination she was profoundly depressed; her head and body bent forward. There was no spontaneous speech. She complained of headache and pain in the stomach. She was oriented and her memory was good. No hallucinations or delusions. She improved at the end of three or four weeks, but the depression returned in a few days. She recovered.

POST-INFECTIOUS PSYCHOSES.

CASE 32.—Kuhn. Female, aged 6. Exhibited acute stuporous dementia with epileptic attacks and chorea following diphtheria.

CASE 33.—Mischede. A child of 5 years and 9 months following whoop-cough developed hallucinations of sight and hearing, which were preceded by sudden feelings of heat and cold.

CASE 34.—Welt. Female, aged 12½. Family history good, except for neuroses. Two weeks after convalescence from typhoid became depressed with insomnia and anorexia. She could not rid herself of the idea that she should kill her mother. Recovered in a few weeks.

CASE 35.—Welt. Male, aged 5. Good health. After an attack of scarlet fever became restless and irritable; did not recognize his mother; became terror stricken; wanted to rush out of the house because the house was on fire. Staring countenance. Recovered in forty-eight hours.

CASE 36.—Gerlach. Female, aged 10. Insane history. Normal child. October scarlet fever; January nephritis. March 10 suddenly had spasms,

which lasted forty-eight hours. Aphasia ensued. She became irritable, quarrelsome and destructive. Dirty in her habits and crawled around on her hands and feet and mumbled.

This condition lasted for two months. Her speech had returned, but was monotonous, alternating with clear, lively and rapid speech. She had hallucinations of sight and hearing and she could not feed herself. Sensibility seemed to be lost except on the soles of the feet. There was an attack of angina later with a rapid pulse. Great motor weakness ensued. Four months after the onset there was contracture at the left knee, with increased reflexes. She began to improve gradually and was cured at the end of nine months. She described her symptoms afterwards as follows: She had a feeling of terror; someone was about to kill her. She saw black figures on the ceiling and members of her family standing about her bed scolding her. She did not speak, because she was afraid. Gerlach believed that the symptoms were all the result of uremia, which was favored by heredity.

CASE 37.—Joachim. Male, aged 4½. Heredity stigma. During convalescence from scarlet fever, complicated by abscesses in the throat, suddenly developed raging frenzy and hallucinations, with symptoms of collapse. Refused food; was destructive and passed her urine and feces involuntarily. Symptoms disappeared in forty-eight hours.

CASE 38.—Hume. Male, aged 2½. Intelligent, neat and orderly, but after catching a cold during an attack of malarial fever became restless, biting paper and rubbish and was destructive. His speech, previously plain, became indistinct. Cured in two weeks.

CASE 39.—Jensen. Male, aged 9. Negative history. During convalescence from typhoid fever suddenly became very talkative. There was emotional exaltation and motor agitation, anger or tears over trifles and then delusions of grandeur. Recovered in about four weeks.

CASE 40.—Jordan. Male, aged 7. During convalescence of typhoid fever four weeks after the temperature had become normal became suddenly violent and had hallucinations of sight. Frogs crawled about; he had only one arm, was incoherent; lost control of urine and feces; was sullen and suspicious. Recovered in four weeks; no rise of temperature during the attack.

CASE 41.—Feith. Male, aged 5. Negative heredity. Typhoid fever, followed by pronounced motor disturbance, aphasia combined with fear and melancholic depression lasting three weeks. Sudden return of speech and the child became lively and unruly and for two weeks talked incessantly and was in a continual state of exaltation. Recovered.

CASE 42.—Welt. Male, aged 10. Negative heredity. Intelligent and studious. After an attack of diphtheretic sore throat and albuminuria he began to be restless, talkative and impudent. This was followed by paroxysms of rage, destructiveness and brutality. Bit and choked his mother; tore the clothing from her body. These paroxysms were sometimes preceded by periods of stupor, staring countenance, bodily rigidity. Hallucinations were rare and were those of sight. Complete recovery in about five months.

CASE 43.—Nierier. Male, aged 13. Periodic frenzy after typhoid fever, then alternating depression and exaltation.

CASE 44.—(This case suggests an early dementia precox.) Wells. Male, aged 14. Somewhat below average intelligence. Left school at 12 and went to work as a cash boy; at which age he developed persecutory hallucinations; wandered the streets for three days before apprehended and could give no account of his whereabouts during this time. He was returned to school, but one day did not come home and was found a week later in a vacant lot ragged and terrified. Was returned to school, where he remained for six months, making fair progress, although showed some evidence of being suspicious of those about him.

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