essential that the medical officer in charge should have had a thorough training in the treatment of mental disorders; and in passing one might mention that such a necessity would provide openings for the assistant medical officers of large institutions, who have at present far too long a period of waiting to look forward to ere they can meet with a reasonable reward. A very desirable adjunct to the Receiving House would be a convalescent home in the country, wherein the recently recovered could be received for an easy probationary period, before returning to the struggle for existence. I feel sure that the institution of these methods would seriously reduce the number of the insane in the asylums and State hospitals of English-speaking communities, and incidentally lower the cost of the maintenance of the chronic insane, as there would be less necessity to provide elaborate accommodation in the large State asylums.

I attach statistics drawn up in much the usual way to show the number of patients admitted and discharged, as well as the causes of, and kinds of, mental disorder amongst our patients.

Insane Movements and Obsession.(1) By J. LOUGHEED BASKIN, L.R.C.P.Ed., Medical Superintendent, Fisherton House.

ONE cannot visit the wards of an asylum without realising that there are many types of mental disease, each with its own symptoms and physical signs, and that intercurrent and overlapping affections of the mind are especially common; thus, in maniacal excitement you may find delusions, in paranoia you find delusions with marked impairment of judgment, in general paralysis you get, in addition to physical signs, delusions, which vary from the facility of the early period to the more difficult mentation found in the advanced age, so that here we have three distinct types of disease, each of which may have delusions, and the delusions may all be of the exalted variety—the patients may consider themselves gods, kings, or mighty personages. The progress of research has had more difficulties to contend with in the subject of mind than in almost any other. It is a subject which is intangible, yet its reactions can be timed.

It is unseen, yet its force can manifest itself in various ways through various channels, and it is even possible to transfer it from one person to another if the medium is so constituted, as in hypnotism, thought transference, and similar phenomena. It may occur to you to ask why has the subject of insane movement and obsession been chosen for this paper; well, gentlemen, for some years it has been my lot to witness, on my daily round of the wards, grotesque movements, antics and pantomimic display by patients, which, were they not interesting as symptoms and physical signs of nervous disease, might otherwise be depressing because of their meaninglessness. About three years ago, however, I had my attention drawn to a woman who seemed engaged in making movements, the precise character of which I had not read of or seen before in any asylum. I shall show you this patient making these movements by means of the cinematograph. We would have brought her here only she obstinately refuses to operate when watched, and it was necessary to have the cinematograph pictures focussed through a partly open window when she least suspected observation. Gentlemen, we are well acquainted with such terms as insane acts, insane expression, insane language, insane conduct, and insane movements.

There will be no doubt from what may be learned from these movements that they are insane; moreover, a careful consideration of their diagnosis opens up the question of obsession. Now, gentlemen, what are these movements? What do they mean? How can we explain them? Are they very common? Are they prejudicial to the patient's life? How can such cases be treated? These are questions which naturally occur to the physician when they are brought under his notice. Let us examine the mental condition of the patient, and then we shall be in a better position to understand the movements. The features of the well-known disease dementia præcox, especially the paranoidal form, are all to be found in this case. We have verbigeration in the frequent remark made by the patient: "Give up the keys and get your head cut off." Negativism, in her refusal to answer any questions; her affections are impaired, and she either refuses to see her sister or she is very abusive to her. Stereotypism is evident in the movement of her limbs. It is impossible to test her memory or comprehension except concerning such elementary

actions as getting in and out of bed, remembering the right bed, eating off her own dish, and knowing the use of soap, water, and a towel. These habits she performs fairly well. There are no cataleptic signs or rigidity, and she is impervious to verbal suggestions. Volition is largely replaced by automatism. Now, gentlemen, in connection with this disease certain movements of the limbs and hands have been described by various writers and authorities, but none approaching the range, precision, and duration of those exhibited by this patient; Dr. Bolton describes a case of the katatonic variety of dementia præcox in which the patient made habitual movements of the hands and forearms. Dr. Clouston describes the case of a voluntary boarder who came to his institution because she could not restrain certain movements of the limbs, which were aggravated in her case at the menstrual epoch. He termed it muscular mania. Let me now describe the movements.

You will observe the frequent elevation of the arms: the movement begins from below upwards; the hands are raised to the level of the head and passed down to a few inches below the knees, with the arms fully extended and adducted so as to touch the knees in their upward passage. The patient performs always in the sitting posture; the fingers are extended and adducted. There is no tremor of the limb, the upward movement is perceptibly quicker than the downward, the eyes are fixed looking straight in front; at the beginning of the action the lips twitch slightly, the expression is one of pain; as the operation is repeated the expression becomes less unhappy, and finally even a semi-contented appearance takes place on the countenance. These movements are performed daily all the year round; they begin when she rises in the morning, the continuity being only broken for the purpose of dressing and having her meals. They continue all day, and when the other patients have been put in bed she still insists on sitting in her bedroom and performing for an hour after everyone else has gone to sleep. The movements are noiseless; they are rhythmic and varying in frequency from 30 to 45 per minute, which is about the rate of stroking in the boat race.

What is the effect of these movements? Well, gentlemen, I believe that they exercise the patient. She enjoys robust health; they take the place of walking, for she refuses to go for a walk

except the very shortest distances in the ward. She does not perspire nor have difficulty with her breathing, thus showing the perfect condition that this insane training has produced. Movements, as found in the insane, may be briefly classified, according to their relationship to time and the figures performed, into rhythmic and stereotyped and arhythmic and dissimilar. According to the anatomical distribution you may have, firstly, movements of the large joints and trunk muscles, as in nodding movements of the head, swaying of the trunk and waving of the arms and dancing, all of which can be seen any day in an asylum. Secondly, a finer class of movement taking place mostly in the smaller joints, exemplified by picking clothes, rubbing fingers together, and protrusion of the tongue; and thirdly, twitchings, or minute spasms which chiefly affect the muscles of the face. On analysis, the movements will be seen to consist of flexion and extension, abduction and adduction, rotation, circumduction, or any combination of these; they may take place on any plane.

When do movements, which under ordinary circumstances are normal, become so altered as to deserve the description insane? There are many insane persons whose movements are highly skilled and well co-ordinated; every asylum contains its billiard-playing patients, some of whom make good breaks with a regularity that compares well with the standard of playing found in our best club billiard-rooms. Organists and pianists are here to be found, and their movements in executing difficult and intricate passages leave nothing to be desired. Many other examples can be easily furnished, but, gentlemen, movements, either instinctive or acquired, whether we trace them in the elementary efforts of the chick as it picks at food in its first wanderings from its shell, or those of offence and defence in the carnivora, or observe the movements of prehension of the anthropoid, or find them culminating in man in the highly finished product of the artist who places on canvas a faithful reproduction of Nature as we see it around us, for all the varieties of movement there is a simple test, the application of which enables us to decide on its sanity. If the movement is incorrectly applied for the realisation of the end or purpose in view, whether in excess, showing lack of inhibition, or by inefficiency, thereby revealing feeble energising power, in either case we have a movement which is not sane or healthy. We

know, if there is pathological change taking place in the reflex arc, we shall have a corresponding paralysis. The movements of hemiplegic athetosis cannot be in any way considered sane; they are unhealthy and indicate trouble in the cortical reflex arc or its connections; they reveal an almost entire absence of inhibition. The ability to exercise inhibition over any variety of movement is a fairly good proof that the cortical relations are intact and operative, and also that the greater or less perfection of the movement, bearing in mind the object for which it is made, is indicative of a greater or less perfection in the physiological apparatus of cortex, cord, nerve, both afferent and efferent, and muscle.

Gentlemen, you have seen these movements; there can be no doubt that they fail to serve a sane purpose, and there is such an absence of inhibition as to clearly mark them insane. Is there any explanation for the origin of these movements? On examining the history of the patient most carefully we can find nothing which satisfactorily explains their origin. She was a lady's companion; her late mistress suggests that the motion of the hands was due to brushing of the hair, which she performed for her mistress every day most thoroughly. We cannot agree with this explanation, because the movement is of such a character as to prevent her getting satisfactorily at the hair, being, as we have seen, from below upwards. Whatever be the explanation, we have here an example of the necessity to energise described by Clouston. Let me give you a brief outline of the history of this patient. She came to Fisherton House in March, 1902; she had been in two other asylums, where her condition made no improvement—first the Virginia Water Sanatorium, and then the Borough Asylum, Portsmouth. The medical officers of both these institutions very kindly supplied me with notes on her case and progress while in their care. She comes of neurotic stock; her maternal grandfather committed suicide by hanging. There were eleven in the family; two of her sisters were queer in childhood, a brother died who was paralysed in infancy, her father died from pneumonia, her mother died from natural causes. She was engaged for seventeen years in the capacity above mentioned to a family in Hampshire, which she left on account of her health breaking down. I will give you, in the words of her mistress, a short description of her character while

there, which will show that to even an ordinary observer she was not entirely free from certain peculiar tendencies. Her mistress says: "As a rule she was very cheerful and enjoyed things and was interested in everything. Fond of reading and singing. She loved music, although she did not play any instrument. She said one day she wished she could hear some singing that would soothe her nerves. She was a very clever, intelligent woman, very thorough and conscientious in her work, most industrious, methodical, and scrupulously clean and tidy, both in her person and work. Very fond of flowers and gardening. Latterly she was constantly singing to herself; she also took to wearing very bright colours; she also spoke constantly about the Röntgen ray, wireless telegraphy and electricity. She was an extremely good woman; we were always great friends, but she eventually developed a marked dislike to me." She suffered from an attack of rheumatic fever when a child, and while in Hampshire from aphonia, panting and crying fits. These were much increased after a severe attack of influenza, from which she suffered two years before she left her mistress, and from which time she developed delusions of an exalted character, believing herself to be the Empress of China. She developed also hallucinations of hearing, carried on conversations with imaginary people, the King of Sweden being one. She also saw lights when there were no lights. Taciturnity and insomnia developed, and she was taken to the asylum. There is no history of alcoholism, love troubles, sunstroke, injury to the head, nor was she unduly religious.

On admission to Fisherton House she had the delusion that she was the third person of the Trinity, said she was the only woman of the Godhead who suffered from heart disease, and insisted upon being called "Queen." Her hair on admission was commencing to turn grey. It is now almost entirely white. Examination of the chest revealed that the heart was affected by mitral disease with dilatation; the abdominal organs were healthy. These movements commenced in December, 1904, two years and eight months after admission, when she was forty-four years of age.

Now, gentlemen, in forming our diagnosis we have to consider movements of a choreic nature, paramyoclonus multiplex of Friedreich, paralysis agitans, disseminated sclerosis, hysteria, and spasmodic or convulsive movements. We may put out of

consideration the professional cramps, senility, exophthalmic goitre, the toxæmias, and the athetoses. In chorea major, or Sydenham's chorea, a succession of similar movements is the exception, and a unilaterality of distribution is the rule. The intervention of volition is futile in chorea; in this case the patient can stop when observed by strangers. Weir-Mitchell describes habit chorea, which tallies closely with the habit-spasm described by Gowers in most particulars, but it begins differently and the movements are less prolonged. The variable chorea of Brissaud is similar to these two varieties. Huntingdon's chorea is chronic and of life-long duration, but there is no limitation of the movements to a special division of the body; they spread from one muscle to another rapidly; the gait is "dancing and skipping by turns." This patient walks steadily with only a very slight stamp in her gait. Then there is the hysterical form of chorea in which the action is rhythmic and unilateral, except where the trunk muscles are involved; the movements are like those of a blacksmith with his hammer, and are termed "*choree malleatoire*." We can eliminate paramyoclonus multiplex, which appears usually after a sudden fright or emotion; the convulsions are chronic and irregular, and affect the trunk. They are not the movements of paralysis agitans, for the patient is remarkably well nourished, and the movements are free from tremor and confined chiefly to the upper limbs. We can eliminate disseminated sclerosis because of the absence of nystagmus and the scanning speech. The diagnosis of the mental disease precludes hysteria, and the movements have been too long in duration to result from a coarse lesion of the brain; moreover, the pupils are equal and the tongue is protruded straightly. There is no paresis, the movements reach a climax daily, and at the time of maximum intensity the knees are abducted and adducted synchronously with the arm movement. This can be explained by the law of the generalisation of reflexes; therefore it is clear that we can eliminate spasm.

Now, gentlemen, there remains for us to see the relation between these movements and obsessions. On recalling the history of the case it will be remembered that she suffered from influenza. Here was developed the soil in which, in addition to the insane history of heredity, we are most likely to find obsession. An organism lives, evolves, and adapts

itself only in proportion as it has the power of prompt assimilation and dissimilation according to the known laws of biology. Proper assimilation means the appropriation of the organic and inorganic elements that are advantageous or indispensable to life. Good elimination means the getting rid of extraneous elements that have penetrated into the organism, or of the products of dissimilation that are hurtful, or of no service to the living being. Wherever these conditions are not rigorously maintained life becomes impossible, or else it is poor, abnormal, and curtailed; it is well known that there is a whole group of organic diseases in which this fundamental function is altered, and every one knows the importance that this conception has recently acquired in the development of human pathology. The processes of mental life follow similar courses. A well-organised mind must select and assimilate from amongst the numerous sensory factors those that will be serviceable for its development, and will associate with other psychic elements in order to constitute the more complex and higher mental products in which is summed up the concepts of the evolution and progress of the individual, as a unit in harmony with its environment. It must also eliminate those psychic elements that cannot be utilised for the purposes of mental life; through a power intrinsic to its own organism the mind eliminates all that will not serve the final end of man as an individual and as a social unit. Of the millions of stimuli and impressions that impinge upon the senses and the perceptive senses of men reaching the threshold of consciousness not one is lost, and if only a relatively small portion of them should become a patrimony that can be made use of, ready always to be vivified and re-evoked into consciousness, the remainder will be eliminated and lie buried at the bottom of the great ocean of the unconscious, thence possibly to rise to the surface in some tempestuous or abnormal perturbation of the mind. In minds that are badly organised through morbid heredity or other degenerative influences, it may happen that the process of psychic metabolism is interfered with, and that a psychic component, destined to move transiently over the field of consciousness and to fall into the unconscious, remains in the mind and cannot be eliminated, just as it sometimes happens that some poisons develop in the organism or some substances introduced from without cannot be expelled, but

remain and accumulate in the organism. These psychic elements that have not been eliminated are obsessions. The existence of an obsession demands certain indispensable conditions, and these reveal the morbid character of the soil on which this evil growth germinates. These conditions are—first, excessive emotivity, and second, congenital or acquired weakness of the mental organisation.

In the case which I have already described to you we have the necessary conditions for the development of the obsession, and although the movements may be stereotyped, yet they resemble an obsession of the motor or impulsive variety in so far as they commence with an expression of anguish, run a course which finally brings content, and undoubtedly from our description of obsession represent a psychic motor element, which is parasitic on the mind and in which volition for the time being is in abeyance and replaced by automatism.

The most recent works and authorities all describe an obsession as being able to provoke a motor reaction. We know that hallucinatory troubles, errors of the affections, likes and dislikes, at one time fear or repulsion, at another time an unhealthy sensitiveness, were apparent in our patient's history. How can we explain the evolution of the motor obsession? There is a well-known example of the individual who, as he moved his arm one day, became aware of a cracking feeling at his shoulder-joint, and from the unwonted nature of the sensation emanates the notion that he must have some form of arthritic lesion. Renewal of the gesture is attended with the reproduction of the sound. A thought of a possible injury develops, and extends until it is an object of constant pre-occupation and becomes a fixed idea; under its malign influence the movement is repeated a hundredfold and with growing violence until it passes into the field of automatic action. It is typically functional in its repetition, in the association of desire and satisfaction; but it originates in an absurd idea, and is actuated by a meaningless motive; its range is exaggerated, its performance irresistible, and its reiteration pernicious.

We may thus regard motor obsession as an obsolete, anomalous function—a parasitic function—engendered by some abnormal mental phenomenon, but obeying the immutable law of action and reaction. With regard to the treatment of such cases as the above, the movements are best not interfered with,

unless a tendency to exhaustion exhibit itself, or loss of flesh occur, or the strength of the patient appear inadequate. The bromides and cerebral sedatives will be found the most useful medicines should the movements become much increased or pass into violence.

(1) Paper read before the Salisbury Division of the British Medical Association on May 19th, 1909.

Some Suggestions as Regards the Origin of Modern Psychiatric Ideas, together with a Note of some Cases of Mania apparently due to Microbic Infection.

By R. R. LEEPER, F.R.C.S.I., Medical Superintendent, St. Patrick's Hospital, Dublin.

TO a gathering of physicians, each of whom is actively engaged in the treatment of insanity, it would be both impertinent and needless for me to enlarge upon the present-day position of our knowledge of clinical psychiatry. As you are aware, each new discovery in the laboratory of medical science has been seized upon, elaborated, and applied to the treatment of mental diseases or considered in connection with it. Unfortunately the laboratory workers exercise only too fully the ancient prerogative of doctors to differ, and their observations and the results of their researches are thus vitiated, and further research rendered all the more difficult and needful. If the dawn and full daylight of bacteriological science have impressed us with the all-importance to mankind of the infinitely little, may I be pardoned for stating that at the present time the importance of securing more unanimity of opinion amongst its competent research workers is infinitely great.

Studies of the hypothetical causation of insanity, metaphysical speculations with far-resounding phrases used in the description of mental states and suppositious entities of disease, have resulted often in practical nothingness. Many of the ardent classifiers and metaphysical writers on insanity have gone down to posterity as those described in the oft-quoted words of Lord Beaconsfield, "as mere unsophisticated metaphysicians inebriated by the exuberance of their own verbosity."

In the history of the world's literature it is abundantly