July 15th. Soon after operation respiration 8; pulse 64. July 22d. Blue urine. July 24th. Light troubles him. July 25th. Dressing and hair removed.

RECENT PROGRESS IN INSANE ASYLUM MANAGEMENT AND CONSTRUCTION.

BY WALTER CHANNING, M. D.

LUNACY IN ENGLAND.¹

DR. ROBERTSON finds that, according to the Commissioners of Lunacy, there are 71,000 insane persons of whom they have cognizance in England. This would make the ratio of about one insane person in 350 of the population. In America, Rev. F. H. Wines, superintendent of a supplementary branch of the census of 1880, having the statistics of the insane in charge, estimates the total number at 100,000, though his returns give a smaller number. This would give us a ratio of about one insane person to 500 of the population. In the older States the number is greater, in Massachusetts, for example, being not less than one in 350.

There are sixty English county and borough asylums containing upward of 40,000 insane persons, each asylum varying in capacity from 250 to 2000. The average cost per bed has been about £200. The average weekly cost per patient has been, exclusive of interest on the cost of construction and yearly repairs, ten shillings a week.

The plan of placing persons of small means in large public asylums is commended. Mention is made of the effort of Mr. Dillwyn to obtain a law with this end in view. One very important reason for taking this step is that the cheaper private asylums are so poorly managed. That such is *not* the case in this country must be remembered. Our cheaper private asylums are the McLean, at Somerville, the Hartford Retreat, Dr. Kirkbride's, the Butler Hospital, at Providence, etc. These institutions are fully as well superintended,

¹ Lunacy in England (or England's Irrenwesen.) An address by Dr. C. L. Robertson, Chairman Section of Mental Diseases, International Medical Congress.

and much more comfortable in regard to surroundings and food, than most public hospitals can afford to be.

Of middle-class lunatic hospitals, there are in England thirteen, excluding two idiot asylums. These asylums have about 3000 beds and the average weekly cost of maintenance is £110. They receive thirty-six per cent. of all the private patients. In one of these asylums (St. Andrews Hospital at Northampton) a saving of £10,000 was made last year. Dr. Robertson thinks that this kind of hospitals affords the best means of treatment for private patients, and in thirty years thinks they would pay back the cost of construction. They will be of course public asylums for private patients. There are 3400, or forty-three per cent., of private patients treated in ninety-six private asylums. Most of these have grown up under a bad system and should cease to exist, but there should still be private asylums which may exist by the side of the public middle-class asylums. Dr. Mitchell, Commissioner of Lunacy, takes the same view. Dr. Robertson is in favor of small asylums for four to six patients. In reading the English view of private asylums, it must be remembered that it is influenced by the unfortunate system which has grown up in England. Under this system lunatics have been taken of all sorts and kinds by all sorts of persons and kept for the sole purpose of gain. This system having been inaugurated many years ago when the public were glad to find any one who would shut up their relatives, it is easy to see that many abuses might arise. Human beings were dangerous animals to be shut up, and to be treated like dangerous animals — and they were. To-day, therefore, England is struggling to throw off this incubus which she has on her hands. In America we are more fortunate. Here private asylums have started simultaneously with the public hospitals, and the larger ones have in almost all ways had a public organization. Our small private asylum system is in

its infancy, and is yet almost too small to furnish care for an appreciable number of insane persons; it seems to be wanted, however, and is growing rapidly.

Dr. Roberston speaks strongly in favor of the care of insane persons in private dwellings, and thinks that one third of the present inmates of private asylums can be placed under family treatment with safety. The experience of Scotland and the opinions of Drs. Bucknill and Maudsley all favor this plan of treatment.

Dr. Lawson¹ takes advanced ground on this subject. In one variety of cases, delusions and delusional methods of thought are superadded to the substance and methods of ordinary idealism and rarely we find here cases of real danger. In another variety, the workings of the mind become altogether delusional and here the abnormal elements and modes of thought virtually abrogate those which are normal, making the patient dangerous to himself and others by the supremacy of his mental aberration over his daily conduct. The first class are the most common, and it is only the second class that require care in an asylum. Residence in an asylum is apt to make a patient with mania, or melancholia, attended by suspicion, worse rather than better. A maniac of this class is only too ready to find in the expressed delusion of another the most satisfying conviction of the truth of his own fancies. In cases of recurrent mania also, Dr. Lawson has seen most excellent results from treatment in private dwellings.

IMPROVEMENT IN ASYLUM MANAGEMENT.

The Scotch Commissioners state at some length in their report the changes which have in recent years taken place in the management of their asylums. These changes have been in three directions, as follows: (1) In the greater amount of liberty accorded patients; (2) in the increased attention that is devoted to their industrial occupation; and (3) in the more liberal arrangements that are made for their comfort. As an example of the first change may be mentioned the abolition of airing courts. It used to be thought that an intensely excited patient could work off his excitement with safety in an airing court. But it was found that the quieter patients were irritated and made worse by association with such a patient. By placing patients in the companionship of judicious attendants, and allowing a wide range of the grounds, the results were better. So with the "open door system." Here again a patient was found to be better satisfied when he felt that the doors were unlocked and he could go out at will. The relations of an attendant to a patient assumed then less of the character of a jailer and more of the character of a nurse. Experience proved that a very much larger number could be trusted than had been supposed.

An immediate effect of thus removing restrictions was a renewed desire to take up some occupation, and this led to earnest study on the part of superintendents. It was found that a great variety of industrial pursuits were needed — of these, farm-work offered the greatest advantage. Here every grade of work, from simple spading to the elaborate care of flowers, could be found. The estate could be improved; there would be road-making, embanking, draining, fencing, plowing, digging, wheeling, and even building; in short, a little of all kinds of labor could be introduced. For one patient who would be stirred to ra-

¹ Report Scotch Commissioners in Lunacy, 1880.

tional reflection by such a thing as a picture, twenty ordinary inmates of asylums would be so stirred in connection with the prospects of the crops, the points of a horse, the growth of the trees, the sale of the pigs, etc. Very much was accomplished, too, in the way of providing work for female patients. Before these persons had often led idle lives in the wards, but gradually they also were stimulated to work.

To inaugurate these and other changes considerable courage and boldness on the part of the superintendent were necessary. "The superintendent who really takes most precautions against violence is not the man who applies the most complete restrictions on liberty, but he who weighs the general results of different modes of treatment and selects that which in practice proves most successful in decreasing the number of violent acts. . . . We cannot hope, in carrying out any system, to exclude the effect of mistakes in judgment and neglect of duty."

In America we do not, by any means, find that we have advanced to the position now occupied by Scotland in the treatment of the insane; perhaps we can never hope to reach the same point, as the conditions under which we work are different, but notwithstanding, very important progress has been made. At Danvers, for example, we find that unlocked wards are being tried on quite a large scale.² Dr. W. B. Goldsmith, the superintendent, says that the doors of five wards have been unlocked throughout the year, giving over one hundred patients (about one sixth of the whole number) full freedom of the hospital farm. Only five escapes occurred among this large number. Occupation was furnished for as many as possible, but owing to the small and badly arranged laundry only a comparatively small number of females can be employed. A new laundry building seems to be needed. If such is built it is to be hoped that the European fashion of having the washing done chiefly by hand will be followed. Under some circumstances it is an excellent thing to do all the laundry work by power machinery, but in a large asylum it is taking away the best form of occupation for a large number of the healthy, able-bodied, but demented or careless and unskilled female patients.

Under the head of attendants Dr. Goldsmith brings into view the *bête noir* of American asylum management. He employs sixty-three attendants; during the year there have been fifty-nine changes. Seventeen were discharged for cause. Such frequent changes "preclude the possibility of perpetuating an efficient organized system of training for attendants." On the attendants, principally, the success of the "open-door system" as well as the system of non-restraint depends. In England attendants are in service for many years, and with the sharp social distinctions can be much better disciplined than here, and they can be looked to for more intelligent coöperation. I do not, however, mean to say that attendants are perfect in England, or that the average in this country, considering the sources from which they come, are not better than would be supposed.

Perhaps the Government Hospital for the Insane at Washington, D. C.,³ furnishes as good an example as any of the improved system of hospital treatment in many respects. At this hospital there has existed for a year past a continuous medical service during the

² Annual Report for 1881.

³ Annual Reports for 1880-81.

entire twenty-four hours. As far as I am aware, this is an innovation on the usual medical system of management. The total insane population of the hospital is over nine hundred. With such a large number a considerable amount of night work was necessary, and with the terrible fire at Anna, Illinois, in view, it seemed to the hospital management that an efficient night medical officer might relieve the rest of the staff of arduous labor, and in case of an accident perhaps be the means of preventing serious disaster. The experiment has worked, so far, well, and probably has already saved several lives.

At this hospital during February (a month, of course, unsuited to farm labor) the superintendent, Dr. W. W. Godding, states there were employed, out of 706 males, 188. And out of 237 females, 97. In weather suitable for cultivation the number employed would exceed thirty-three and one third per cent. on the whole number. For females alone the percentage is about forty-one for February. The women work with the needle and in the domestic department. The men work at brush making, mattress making, hair picking, tailoring, stable, domestic labor, farm work, road building, etc.

The "open-door" system applies to more than one fourth of the male patients. In one cottage building there are sixty-five inmates and no window guards. In another two hundred patients and no guards on the lower floor, and very slight ones to prevent accidents on the upper stories. The doors of these buildings are unlocked, and patients can go from one part to another at will. Only one escape has so far occurred.

These figures may seem small to our Scotch and English brethren, but they show that some of our asylums are at least following in their footsteps. It must be remembered that the Government Hospital has a large proportion of negro patients, and among them many violent and difficult persons to manage.

HOSPITAL CONSTRUCTION.

In this direction, also, progress has been marked, for we find smaller buildings, better adapted to the needs of the patients, being erected, and at a very much diminished cost. At Washington the Relief Building connected with the Government Hospital for the Insane cost only two hundred and fifty dollars per patient, furnished.¹ This is a low estimate for the present high price of materials and labor, but five hundred dollars per patient would build and furnish a comfortable building for at least mild cases. At Kankakee, Illinois,² there is to be a small central building for acute cases and officers. There are then to be in addition cottages, as many as may be needed, and to contain from twenty-five to thirty patients. These cottages will be two stories in height, having day rooms on the lower floors and dormitories on the upper. They will be located on the streets, into which it is intended that the grounds shall, like a village, be divided. It is intended that these cottages shall be the permanent home of a chronic class of patients.

The managers of the Vermont Insane Asylum have recently purchased a boarding-school estate and building near the asylum, at which a suitable class of patients will be treated.³ At Hartford a cottage has been erected by a gentleman for his insane daughter.

This will eventually be used for other patients.⁴

As a result of the fire at the Illinois Southern Hospital for the Insane, at Anna, in April, 1881, it was found necessary to put up a temporary structure while rebuilding was in progress.⁵ A one-story building, consisting principally of one ward on each side of a centre building, was found to answer the purpose admirably. There were numerous doors into large airing courts, which were kept open so that patients could wander out at will. The greater amount of freedom in this building had the effect of making the patients more contented, and they improved in health, and less restraint was necessary. At night, though large numbers were together, they were unusually quiet. This building worked so well that it will be used in the summer in future. Its cost, including hot and cold water and a system of sewerage and gaslight, amounted to only thirty-seven dollars per capita.

Dr. Bancroft⁶ argues that patients should not be placed promiscuously together in the wards of an asylum, but in buildings especially adapted to their needs. "The great diversity of demand in the persons coming under asylum care and treatment, growing out of wide differences in temperament, forms of disease, natural tastes, and other circumstances, calls for a corresponding variety in situation and the influences needed to meet in the best manner the wants of the whole." There is always an important minority who do not require the amount of repression needed by the majority. There should be no radical departure from the customs of society unless necessary. General customs should be followed until disease renders a change imperative. The plan of varying the surroundings to suit the patient's case has been extensively carried out at the Morningside Asylum in Scotland, and at Cheadle in England. In these institutions all forms of insanity are treated, and every kind of building, from the close asylum to the common dwelling-house, is found. At Cheadle there are eight or more houses, and two at the seashore. Probably about one fourth of the patients live in these houses. One indirect result of adopting this modified plan of building will be to diminish the contrast between life in the institution and ordinary domestic life, and thus make the public less unwilling that their friends should be placed under treatment. There is now a very natural feeling of dread when one is called on to place a dear relative among a mixed mass of insane persons, to be completely deprived of liberty, and subjected to an annoying and often unnecessary discipline. By procrastination in treatment very valuable time is lost, and hence any changes which will bring the patient earlier under treatment will be a step in the direction of more frequent recovery.

PROVISION FOR INSANE CRIMINALS.

During the last year there has been renewed interest felt in this subject, and in Massachusetts, perhaps, more than elsewhere. This has been partly caused by the murder of the President, and the question, What shall be done with "cranks" of the Guiteau type? But in Illinois, New Jersey, and our own State, for example, the trouble caused to the insane asylum man-

¹ Annual Report 1881.

² Sixth Biennial Report Illinois Board of State Charities.

³ Address of the superintendent, Dr. J. Draper, before the New England Psychological Society.

⁴ Annual Report 1881.

⁵ Care of the Insane, by H. Wardner, M. D., Alienist and Neurologist.

⁶ Report of the New Hampshire Asylum for the Insane. Dr. J. P. Bancroft, superintendent.

agers by the large number of insane criminals under treatment has led them to a vigorous discussion of the question on their own account. In Illinois we find that an asylum for insane convicts is already under way on the State Prison grounds.¹ In New Jersey but little progress has been made. In Massachusetts progress has been made—in talking at least. The trustees of the State Insane Hospital at Taunton call attention to the law of 1874, providing that provision should be made for insane criminals in the new hospitals at Worcester and Danvers, and at the new State Prison in Concord.² That such provision has not been made they infer from the fact that none have been withdrawn from their hospital, but, on the contrary, they have increased in number until there are now twenty-seven. They say the subject is so important that it demands definite action. At the Worcester State Insane Hospital Dr. J. G. Park, the superintendent, states³ that eleven convicts have been received from the State Prison, three females from the reformatory, and three men from Deer Island. Of a transfer from Taunton, two were from the State Prison, and six from the House of Correction. Ten men and one woman were received from jails and houses of correction. Here there are altogether thirty-six persons belonging to the criminal class, in one year entering this hospital! Probably some of them could be treated in an ordinary asylum, but the larger part should receive separate treatment in a special institution. Dr. Park thinks there is not a lunatic hospital in the State suitable for the safe custody of the criminal insane as a class. He would have the plan for their separate treatment include provision for dangerously homicidal patients who are not criminals. Some doubt might exist as to whether it would be constitutional, or, indeed, advisable, to treat with criminals persons of any other class.

The Massachusetts Legislature of 1881 passed a resolve requesting the Board of Health, Lunacy, and Charity to prepare a plan for separating insane criminals from the other insane in the public asylums. In their last Report the Board gave the results of their investigation of the subject.⁴ The chairman of the Lunacy Committee, Dr. Edward Hitchcock, visited the English Criminal Lunatic Asylum at Bracknell, known as the Broadmoor Asylum, where he found five hundred and thirty-two patients. This institution has a prison-like appearance, and the clanking of keys and creaking of iron-grated doors are suggestive. There are numerous workshops, and the patients are allowed a small sum of money for good work and behavior, but it is a prison, and a very rigid one at best. The Earl of Shaftesbury, for fifty years or more connected with the English Lunacy Commission, warned Dr. Hitchcock against making an asylum so comfortable that convicts would be glad to be transferred to it. Shortly before, at a county asylum, a patient murdered a visitor in order to be transferred to the "farm," as Broadmoor is known to the convicts. On the whole, the English Lunacy Commissioners seemed satisfied with their method of treating insane criminals in separate institutions.

At a later period of the year, Dr. Hitchcock, Mr.

F. B. Sanborn, and the writer visited the Criminal Insane Asylum at Auburn, N. Y., at the request of the Board. At this asylum there were at the date of the visit one hundred and forty-two patients. This small number of inmates for a State of over five millions is explained by the fact that the period of detention of patients is short, and that there are, according to the statement of the superintendent, Dr. C. F. MacDonald, probably several hundred insane criminals scattered around through the State who would be fit subjects of treatment in the Auburn asylum. Dr. MacDonald thought that were the laws modified the number in his asylum might rise in a few years to five hundred. This asylum does not have a prison-like appearance, resembling closely the ordinary asylum, but convicts rarely feign to get in, and do not stay long if sane. Comfortable food and surroundings, and thorough medical care seem to exert a good effect on the inmates. The discipline is good, the amount of restraint one per cent., and the number of cures fully equal to that of Broadmoor. Hence it may be inferred that the asylum plan, rather than the prison plan, may be the more successful in America.

Drs. Orange and Nicolson, medical officers of Broadmoor, find a marked difference between convicted and unconvicted insane criminals, so that they would prefer a separate institution for each class.⁵ In this country, so far as a smaller experience goes, while there is a difference in some cases, it is not so great as to call for distinct institutions for the two classes for some time to come.

The Board find three varieties of the "criminal insane," as they call them. First. There are those insane persons who have committed crimes, and have been adjudged lunatics by the court. Second. Those persons who have become insane in prison. Third. Persons obviously insane, and confined in asylums, who either commit offenses there or manifest such dangerous tendencies as to render them unfit for association with the ordinary insane. This class is, perhaps, more in need of separation than the others. As I have said before, I doubt the propriety of making these persons into criminals until they have committed a crime, making them properly amenable to the law. Perhaps the law could be so modified as to bring them within the desired category, for they are a troublesome class.

A certain number of the "criminal insane" can, under proper circumstances, be sent to an ordinary asylum for treatment, the Board thinks. There will be occasionally persons of good social standing, of upright character, and high attainments, who may have through insanity committed a crime. These persons, if any, can be made an exception.

The Board then goes on to propose four plans for separation from which the legislature can choose the best. The first plan is to take the eastern part of the State Reform School at Westborough, which is strongly built for prison purposes, and, tearing out the cells, adapt it to the purposes of a criminal asylum. This arrangement would allow room for one hundred insane criminals, with quarters for the necessary officers and attendants, and would cost about thirty thousand dollars. By adapting other portions of the buildings room could be found for about one hundred and fifty more patients of a more manageable class, epileptics, for example. A second plan is to build a "prison asy-

¹ Sixth Biennial Report Board of Charities.

² Annual Report, 1881.

³ Annual Report, 1881.

⁴ Third Annual Report of the State Board of Health, Lunacy, and Charity.

⁵ A Chapter in the History of Criminal Lunacy in England.

lum" in connection with the State Prison. It seems quite feasible to use a portion of the prison, remote from the main prison, for the convict insane. There is also a space of four acres inside the prison enclosure where a building for one hundred insane persons could be erected at a cost of less than seventy-five thousand dollars. A third plan is to use certain wards connected with some State insane hospital where the insane criminal patients could be placed together. A fourth plan is to build a new and distinct asylum, which would cost from one hundred and fifty thousand dollars to two hundred thousand dollars, for one hundred and fifty persons.

The Board would on the whole give the preference to the first plan, and they add that the Westborough buildings could at a future time be used for some other class of the insane. The experiment would not cost much and the buildings could be got ready in a very short time.

It may be said, in considering these plans, that nearly all hospital superintendents, and others acquainted with insane criminals, would regard the fourth plan as the only one which, on scientific grounds, would be the most successful.

We find from the Report of the Board that our State will very soon be called on to provide room either for our chronic insane, who are more than nine tenths of the whole number, or for the recent and possibly curable insane. Now the question is: Will it not be better to use Westborough and its large farm for this great number who must be provided for within a year or two, rather than spend money on it for the benefit of a comparatively small number of insane criminals? We find that cottages can be built at Westborough, and at a cost not to exceed \$200,000; the Report states there will be room enough for five hundred chronic insane persons.

The best course would be to appropriate money for this change, as well as a moderate sum to begin a criminal asylum; should the legislature refuse, however, to do this, it will then undoubtedly be advisable to adopt Westborough for the criminal insane.

PREVENTION OF INSANITY.

Dr. Mary Putnam Jacobi has made a suggestive and interesting study of this subject.¹ She regards the three great elements in the moral substratum of a person predisposed to insanity, as first, the egotistical predominance of the instincts over the faculties of reflection and external relation; second, the ineffectiveness of the will even when this is impulsive, or violent; and third, the inaptitude for ideas resulting in their poverty and imperfect combination. To overcome these defects we need a strenuous educational system. "The acquisition of knowledge, the training in morals, the formation of habits of thought, must all be centred on practical activities. . . . In minds predisposed to insanity there is often, perhaps always, a marked deficiency of elasticity. An impression sinks and remains; the mind cannot disengage itself, or recover its tone; it cannot pass quickly enough into the contrasting mood; a capacity to do this is the natural provision against strain; it probably corresponds to a law of rhythmic action in the physical mechanisms of thought. This capacity should therefore be carefully cultivated

by encouraging alternations of attention on the first sign of fatigue. . . . Irritability always means the tension of nerves overcharged with impressions, which can find no issue in movements or actions. Movement is the physiological remedy for irritability. It is the remedy sought by nature in the higher grades of irritability, where the patient is no longer conscious of the tension, in maniacal excitement and mania."

The question of occupation is the great question of moral treatment of insanity. A new world should be built up around the patient. Palliation of symptoms is of great importance. The mere continuance of a morbid function may result in collapse by destruction of its mechanism.

The above examples give a slight idea of the accuracy and clearness attending this study of Dr. Jacobi. Though the writer may not agree with her in all her conclusions, he cannot help calling attention to the power of analysis she displays. It is to be regretted that want of space prevents a fuller abstract of the paper being given.

Hospital Practice and Clinical Memoranda.

UNUSUAL OR ACCIDENTAL RESULTS OF VACCINATION.

BY ALFRED H. HOLT, M. D.

ONE of the principal arguments of the advocates of anti-vaccination is, that the operation is liable to introduce into the system some other disease than the one intended, or that the process it sets up may develop or set going a train of events more injurious than the disease it is intended to modify or prevent. However unsupported or absurd such a doctrine may be, its general discussion by those in the community who know nothing of the facts of the case has brought the people generally to look upon vaccination with great distrust, and a large part of them are constantly on the watch for some bad result to follow in those who have had the operation. When such a state of things exists it is certainly of the greatest importance for not only physicians, but the community at large, to know just what results are liable to sometimes follow vaccination when properly done. For this reason I relate the following cases. As far as I can learn by reading and inquiring none like them have heretofore been recorded.

December 3, 1881, a woman was removed from a house on Harvard Street, Cambridge, to the small-pox hospital; she was, at the time of removal, at the sixth day of the disease and at the fourth of the eruption. Her two children, one four and the other six, who had been vaccinated, had been constantly in the room with her, and up to the last night had slept in the same bed. These children and the other inmates of the house were at once vaccinated, and instructed to remain here that they might be under observation. Nine days after Dr. Turner, Assistant City Physician, and myself saw them. The girl, four years old, was sick in bed, with quick pulse, hot skin, flushed face, and some headache. She had two well-marked and in every way characteristic vaccination pustules on the arm. The boy, six years old, was about the house, although the vaccination had taken full as well as his sister's. The next day, or the tenth of the vaccination, I was called

¹ The Prevention of Insanity and its early and proper Treatment. A paper read before the American Social Science Association, September, 1881.