

## REPORT

*Dr. Manchester*

OF THE

MEDICAL SUPERINTENDENT OF THE PUBLIC HOSPITAL FOR THE  
INSANE, NEW WESTMINSTER, B. C.—o—  
FOR THE YEAR ENDING 31ST DECEMBER, 1901.  
—o—*To the Honourable**The Provincial Secretary, Victoria, B. C.:*

SIR,—I have the honour to submit for your consideration the Annual Report for the thirtieth year of the Public Hospital for the Insane at New Westminster. In doing so, I beg permission to introduce by way of preface a brief review of the history of the Institution since its inception thirty years ago, as I think this the most opportune time for doing so, inasmuch as it has entered upon a new century under new management, and moreover has emerged from comparative insignificance and obscurity and become the largest eleemosynary institution under the care and support of the Province of British Columbia.

Another consideration that prompts me to take this course is that you may have at your disposal, and at the disposal of the Government, a complete and convenient account of what has been done by the various Governments of this Province for the insane under their care, as well as to show how the Institution comes to be as it is to-day. For while this history will show that a great deal indeed has been done during those thirty years to care for and cure that class of unfortunate persons who suffer from the worst of illnesses, and much money spent in buildings as well as in maintenance, yet a lot remains to be done to bring the Institution up to the standard in point of equipment, and, therefore, I hope that it will cause no shock when later in this report I point out the necessity for considerable alteration in the near future in the accessory portions of the Hospital.

Before going further, I wish to acknowledge my indebtedness to Drs. J. S. Helmcken and I. W. Powell, of Victoria, for their kind assistance in collecting the data which relates to the earlier part of the history. Dr. Helmcken was the first physician in British Columbia to come in contact officially with the insane, through his position as Gaol Surgeon in Victoria, which post he has most creditably filled for the very extended period of fifty years.

Dr. Powell was the first Medical Superintendent appointed, but was, like several of his successors, non-resident.

## HISTORY.

The earliest record which I have obtained of an insane person in British Columbia dates back to the year 1850, when a young Scotch immigrant became deranged soon after his arrival, and proved himself to be a genuine maniac by making a most violent and unprovoked attack

upon Dr. Helmcken during a visit. He was sent home in a sailing vessel, and it was afterwards ascertained that he quite recovered his mental balance. Cases were not so rare when the rush to the gold fields of the Cariboo was on, and during the years 1858 and 1859 many new comers broke down under the strain and hardships endured, and had to be taken care of by the authorities. At this time there was no asylum nearer than the State of California, and the only place suitable in this Province for safe keeping those cases which were at all violent or turbulent was the "lock up" at Victoria.

There were then no towns upon the Mainland, so that Victoria, which was a Hudson's Bay Co's. post, was the outfitting depot and last point of departure for the gold fields, and all persons entering into and passing out of the country by the regular route passed through Victoria, to which port they usually came from San Francisco. It was in this way that the authorities began to send the insane who came under their notice in those days back to California, where they were committed to one or other of the asylums belonging to that State. This went on very well for a time until the Americans, although very obliging, gave our authorities to understand that the practice could not continue, but that if the British Columbia Government were willing to pay for their patients some arrangement might be made. However, this suggestion was not acted upon, but the insane were kept in the Gaol at Victoria until it became too full to hold any more, and then, as more violent and urgent cases presented themselves, the milder and more manageable ones were sent to the Royal Hospital.

The gaol of those early days was not large, and contained only 10 or 12 cells. It was built of hewn logs at first, but some years later a brick administrative building, two stories in height, was placed to the front of it, and it then presented the appearance shown in the first illustration here. The site was the same as that now occupied by the Law Courts on Bastion Street. So long as the patients proved to be of the male sex the gaol seemed to serve the purpose of an asylum fairly well, but when female patients began to appear it was seen that something further would have to be done for the insane and a proper place provided.

The Royal Hospital, above referred to, was a hospital for men only, and was situated upon an Indian Reserve opposite the City, upon the other side of the harbour. It was originally built for a pest-house, and this accounts for its location outside the City. As it offered no accommodation for women the ladies of Victoria opened a woman's hospital on Pandora Street, but this soon fell into financial difficulties, and it was then suggested that it should amalgamate with the Royal Hospital if the latter would keep a ward open for women. It was so arranged, and the building of the Royal Hospital vacated. Following this event, two female patients came under Dr. Powell's notice, and he suggested to the Government that they remodel the old Royal Hospital and make it into an asylum. This was done in the year 1872, and on October 12th was opened as the first Provincial Asylum, which function it was destined to fulfil for the short space of five and a half years. The Provincial Secretary took charge of the new Institution, and its management has been under his department ever since.

In describing the building, I may say that it was a very simple structure of most modest appearance, as shown in the accompanying illustration. It was about fifty feet by forty, and had an upper storey, the whole being of wood and whitewashed. A door from the upper storey led out upon a balcony which possessed a fine view of the harbour, and altogether the situation was a pleasant one. Inside, the building was somewhat re-arranged from the plan existing when used as a hospital, and every available space was made up into cells or very small single rooms.

On the opening day seven patients were admitted, and amongst them were the two women referred to, who, by the way, were sisters, and still another sister was admitted two days after. Dr. I. W. Powell was appointed Medical Superintendent, Mr. E. A. Sharpe as

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“Superintendent of the Asylum” and Mrs. Flora Ross as Matron. There were three “keepers” or male attendants, a cook and an Indian wash-woman. There were almost as many employees as patients, which demonstrates the fact that the per capita cost of maintenance, especially in regard to salaries, has an inverse relation in proportion to the number under treatment and therefore small asylums are, *pro rata*, much more expensive to maintain than large ones.

Crude as things must have been in this embryo asylum, there were malingering applicants for admission. Dr. Helmcken tells of one who pretended to be not only insane but paralyzed, but as his deception was suspected by a physician, the latter took a pail of water up to the balcony while the man was in the front of the building and suddenly dashed the contents upon the would be lunatic, who suddenly made a complete recovery, and displayed good action in his legs while hurrying away.

There is little doubt but that the structure was, internally, ill adapted for its work, as my records go to show that a carpenter was kept fairly busy repairing the damage done by disturbed patients. To keep order, at times it was found needful to resort to restraint, and this feature of the work developed and stayed with it for a considerable period of time.

There had been no Act upon the pages of the Provincial Statutes dealing with asylums up to this time, but at the next sitting of the Assembly an Act was passed which continued in force for twenty years. It was called the “Insane Asylums Act, 1873.” It placed the management, as already intimated, in the hands of a “Medical Superintendent” and a “Superintendent of the Asylum,” the former being non-resident and the latter a resident layman, whose duty it was to look after the internal economy and discipline. This Act was a very short one, and provided that a lunatic should be committed to the asylum upon the certificates of two medical practitioners, who were to examine the patient in the presence of one another, which you will note is the direct opposite to that now in force here and everywhere else. It made no provision for a statistical form or form of history, and so it occurs that we possess very little information about the patients treated in those early days, and what there is on record appears to have been obtained by the Superintendent from the patients themselves.

At the close of the year 1873 Dr. Powell resigned, and was succeeded by Dr. J. B. Matthews, who began duty on January 1st, 1874. Small improvements were continually being made about the buildings, and fences were erected to form enclosed airing courts. At the end of the year 1872 there were 16 patients; at the end of 1873 there were 14, and at the end of 1874, 19. so it will be seen that the increase in population at first was not very rapid. At the end of 1875, however, there were 32 patients, and as soon as spring opened in 1876 a small addition which, in the photograph, looks more like a shed, was built. On July 1st of that year, 1876, Mr. J. J. Downcy replaced Mr. Sharpe as “Superintendent of the Asylum,” and on December 1st of the following year, Dr. Matthews having resigned, Dr. MacNaughton Jones took charge and went to live in the Institution as the first resident Medical Superintendent. At the close of this year there were 37 patients in residence, and the building could accommodate no more, nor was it desirable nor suitable to extend the Institution upon that site which, in the first place, did not belong to the Provincial Government and, in the next place, possessed no feature that would be useful to a large Institution such as it was evident that the Asylum was certain to become. The site was about as unsuitable as it could be from an economical point of view, and a radical change had to be made in some direction and at once.

It was finally decided to remove the Institution to New Westminster and locate it upon a Government reserve, in juxtaposition to that City. This reserve is beautifully situated on the north bank of the world famed Fraser River, between the main part of the City of New Westminster and that portion called Sapperton, which was once the site of the Royal

Engineers' camp when they were on service in this country. The Dominion Government reserve, upon which is located the Penitentiary, lies next and parallel to this reserve. The bank of the Fraser, which forms the front of the reserve, rises to a considerable height, so that the intervention of the C. P. R. track with Columbia and Front Streets, between the river and the Institution, does not in the least break in upon the panorama of scenic grandeur as viewed from any portion of the buildings. Mount Baker, with its perennially snow-clad peak, is plainly seen in the eastern horizon directly opposite, while to the north are the serried banks of the Coast Range of the Rockies.

The reserve was then about 100 acres in extent and covered with its principal sort of evergreens, with dense undergrowth. The soil upon the river end, which was the part built upon, was fairly good, being a sandy loam, but farther back it becomes more sandy and gravelly, with many large boulders cropping up here and there, while still to the rear of that we have brick-clay and then swamp. Looking toward the establishment of an Institution farm, it presented no rich promise.

However, for convenience to the base of supplies, as well as to the centres where the most patients were likely to be found, the site could not have been better chosen, while at the same time it is said that one strong reason for placing the Institution here was to recompense New Westminster to some extent for its abandonment as the seat of local Government.

The first building was erected during the fiscal year 1877-8, at a cost of about \$20,000, and was so placed as to ensure sufficient fall in the water-pipe which was to conduct the water supply from a creek which runs through the adjoining Penitentiary property. This proved to be the water supply for about fourteen years, and may, therefore, be accepted as sufficient excuse for the error of placing the buildings too near the brow of the hill. This primary structure was built of brick and made two stories high, 125 feet long by 25 feet wide, with the main entrance in the centre, which part projected to the front about 20 feet. It faces east and slightly south.

The internal arrangement was characteristic of that time and has been altogether altered, so that no one would, from its present appearance, suspect its earlier style. A narrow hall ran from the front door through to the rear, dividing the interior into two sections, with a ward in each. The same plan prevailed up-stairs, making four wards in all. The rooms for patients were all single, and of these each ward had seven, with a day-room and lavatory, but no water-closets. These latter were situated outside, and necessitated the patients being taken out to them by the attendants upon occasion, which was certainly not in accord with modern ideas. A peculiarity of the wards was the unusual height of the window-sills from the floor, it being so that no one could see out of the windows unless he stood upon some object as high as a table, which, as one of the annual reports says, was a very common way for patients to spend hours. This defect, coupled with that of having heavy iron bars for window-guards, like a prison, made the wards very gloomy, and as they possessed no decorations, no carpets nor curtains, and very little furniture, which was home-made at the best, one can only wonder how the patients put in the time, and marvel that suicides did not occur very frequently. Even the bedsteads were home made and furnished with straw ticks and straw pillows. The wards were heated by means of open fireplaces and stoves, and for light coal oil lamps were used.

There was one dining-room for all, and the patients from the different wards dined serially, the women first and the men afterwards. The Superintendent and the Matron had their suites in the central part, and what with accommodation for the employees and store-rooms, not much space could have been devoted to the wards. In fact, this one small building

had to accommodate the entire staff and the 38 patients whom they brought over with them from Victoria.

The kitchen and laundry were contained in one small wooden shed at the rear, connected to the main building by a narrow wooden passage. Such was the first Asylum, in structure and fittings, that was built for the purpose of an Asylum in this Province.

The transfer of the patients took place during the month of May, 1878, and two or three separate trips were made, but by the 17th all were removed, together with household goods to the value of about \$800.

The 38 patients, as will be readily seen, more than filled the 28 rooms, and from the very start there was a degree of overcrowding that was not freely relieved for seven years, by the end of which time the day-rooms, corridors and lavatories were all being used as sleeping rooms.

As soon as the patients had been made as comfortable as possible in their new quarters Dr. Jones resigned, leaving the service at the end of July to return to Victoria and take up general practice. Thereupon the old system of management was reverted to, and Mr. James Phillips was promoted to the office of "Superintendent of the Asylum," while Dr. T. R. McInnes, our recent Lieutenant-Governor, was appointed Medical Superintendent, to be non-resident.

Coming now to the year 1883, we find that the annual report for the previous year was printed and distributed for the first time. It showed that the number of inmates had increased up to 49, and that the overcrowding was becoming irksome, combined as it was with so many defects in the structure and in the various services, such as the water, heating and lighting. It mentioned that very little outside work could be done on account of the proximity of the bush and the danger of escape, and altogether one gathers that the treatment was simply that of custodial care.

On January 22nd Dr. McInnes resigned, and was followed in the work by Dr. J. A. Sivewright, who was himself succeeded on May 31st by Dr. R. I. Bentley.

During 1884 plans were prepared for throwing out a wing to the north. This addition was made 99 feet long by 33 feet wide, being shorter, but wider, than the original building, with which it forms a right angle. The interior was differently planned, the intention being to provide dormitories instead of single rooms, and the corridors were made wide. The cost of this building was \$26,000, and \$4,700 more was spent on Lands and Works in the way of boundary fences and a residence for the Superintendent. At the same time, improvements were made in the old buildings to the extent of lowering the window-sills and building a balcony for each ward, so that access could be had to it by a door from the day-room. This was a specially welcome feature in this place, where the winter season is so unsuitable for patients to go out of doors in search of recreation, on account of the incessant rains and the water-soaked earth. The building of 1884 retains one feature, as will be seen from the photograph of it, which is not in vogue in modern asylums, and that is the heavily barred windows, but when one is dealing with insane criminals this, after all, is the safest window guard. It also possessed a front entrance of its own and was used as an administration building for a time.

Some attempt was now made for the first time at decoration, and pictures were framed and placed on the wards, and by using one of the larger rooms it was possible to have divine service once a week, a matter that had been neglected hitherto. The capacity of the Institution was raised to about 70 beds, with about 60 patients in residence.

At this time Dr. Bentley introduced an important innovation in the treatment of the patients, in allowing them to go out to work in the grounds, clearing and cultivating the land

enclosed within the new boundary fences. This afforded the unfortunate inmates a chance to be out in the open air and sunshine, as well as a pleasant diversion, and from the report of that year they seem to have thoroughly benefited by it in every way. Greater efforts were put forth also in the wards to amuse the patients by games and dancing, but as yet there was no amusement hall, that indispensable adjunct to every asylum.

On January 1st, 1885, Dr. Bentley, who had hitherto been visiting physician, became resident with increase of salary, and was placed in full charge of the Institution, while the hitherto "Superintendent of the Asylum" was made steward. It was arranged that the Medical Superintendent should occupy the new residence built for him and devote all his time to his work, although he was permitted to still attend to the Royal Columbian Hospital for a while longer, a duty which he had previously been performing.

During the next three or four years the Superintendent lost no opportunity of pointing out to the Government that the services of water, heat and light were thoroughly bad and needed alteration. The water pipe coming for such a long distance through hillocks and ravines over the Penitentiary grounds was choked with sand, and was continually breaking in weakened spots, while every repair was becoming more difficult, owing to the fact that the Penitentiary authorities had enclosed their property with a high boundary fence. However, as it was apparent that the future water supply of this Institution was going to be a serious matter, and no solution was visible other than to wait until the City installed its water works, it was left in abeyance and so remained for some years.

By the end of the year 1887 the Superintendent was urgently calling for more accommodation to be provided for patients, as the wards were again becoming very crowded. Nothing was done, however, until 1889, when it was decided to add an administration building and another wing, both extending, in the order mentioned, to the south. At the same time radical changes were planned for the old structure to make it conform to new ideas, and so it was widened by adding 12 feet to the front of it, making it 125 feet by 37 feet. Of course, to enable this work to be carried out, the building had to be abandoned by the patients, and 20 men were chosen and sent to the gaol, for the time being, while the rest moved into the 1884 building.

The new administration building now forms the centre of the main block, and is 65 feet by 43 feet, built of brick, and three stories in height. It was at first arranged to contain the officers' quarters and administrative offices as well as the steward's stores, a dispensary and a reception room for visitors, while the entire top floor was one large hall to be devoted to amusement purposes. As for the new wing, it was slightly larger than either of the others, being 127 feet by 38 feet, and arranged in the most accepted style of the time, with a wide central corridor and all the bedrooms leading off it, the day-room and lavatories being in the centre. It would accommodate 55 patients in all, while the alterations in the old building made it of like capacity. The only possible objection to the changes in the old building was the doing away with the balconies. This was a distinct loss which it is hoped will yet be remedied, but the substitution of the new window screens for the iron bars partly made up for it. A brick kitchen was also built in the rear and that service improved. Connections were made with the New Westminster Gas Company's pipes, and gas was installed for lighting the wards, but the attendants' rooms were not so provided, which still necessitated the use of coal oil lamps. Two hot water furnaces were placed in the basements, and the wards were heated by this means, which was a great improvement in that system. We now hear for the first time the mention of a work-shop, and this was when the old kitchen was allowed to the carpenter for his use. When all these operations were completed the Government had spent \$55,000, and the Institution had a capacity of 165 patients.

The 20 patients in the gaol, whose number had been augmented to 27 during the twelve months while the building operations were in swing, were brought back in August of 1890, and the population was found to be 117.

The acquisition of an amusement hall led to greater development along the line of amusement than anything that had been previously attempted, and during the following winter the female patients danced three times a week to music sung by one of their number, there being as yet no piano.

The men had a violin and concertina which could be heard all day long, but it was not at that time customary for them to dance with the women. The chief event that transpired during the year 1891 was the purchase of a piano for the amusement hall.

At this time the water supply, which had not been remedied with the other defective systems, was in a state of collapse. The water used was what was dipped up with buckets from a ditch at the back of the Asylum yard.

However, during the year 1892 connection was made with the service pipes which had recently been installed in the City, and for the first time since its transfer to New Westminster was the Asylum furnished with an unlimited supply of pure fresh water, such as has made New Westminster famous amongst the Coast Cities.

It brought with it also an increased degree of fire protection, as hydrants were placed in all the wards as well as in the front grounds, all of which possess streams of high pressure.

The greatest need now felt in the Institution was that of a better laundry, and this was supplied in the year 1894, when the present brick laundry building was erected. It was furnished with a cement floor and a very faulty dry-room, but the other internal fittings were left in a rather primitive state. No machinery of any kind has, up to the present, been installed in it, and the washing is being done in tubs by the Chinese patients. Until recent years part of the laundry was used for a shoe-maker shop and another part for the plumber.

During the years that Dr. Bentley was in charge the work of clearing the land surrounding the Institution went on rapidly, and the grounds were very greatly improved as well as the lot of the patients.

Towards the close of 1894 a Royal Commission, comprised of Dr. C. F. Newcombe, of Victoria, and Dr. Edward Hasell, of the same place, was appointed, for the purpose of investigating the affairs of the Institution. As the result, Dr. Bentley resigned his position and retired from office at the end of the year. Dr. Newcombe was placed in charge temporarily for a month, and was relieved on February 1st, 1895, by Dr. G. F. Bodington.

As it was deemed advisable that the Superintendent should live in the Institution, it was arranged that quarters for his accommodation should be provided by the erection of an addition to the front of the main centre building. This work, together with the erection of a gate-keeper's lodge, was completed within the year, at a cost of \$6,555, and the former Superintendent's residence was converted into a detached cottage for female patients. This cottage was lighted by electricity from the City plant, and the same system was installed in the new residence, so that this was the beginning of the period of electric lighting, which later on extended to the entire Institution.

The arrangement of the front grounds was greatly altered and improved, by doing away with the old entrance and providing a more direct road from the corner of the property nearest to the City. This new avenue of entrance is quite level, and has been made very attractive in appearance. A lodge was built at the entrance for the accommodation of those attending the gate. During these two years the number of patients was gradually increasing, until at the close of 1896 we find the wards full to overflowing, there being 171 in residence, with

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accommodation for 165. Plans for extensive additions were now prepared, and work begun in the summer of 1897 upon the first of two new detached buildings which were to be located to the south of the then existing Institution.

Each of these structures was built to accommodate about 50 patients, and care was made to have the appointments along modern lines. They stand detached, their only connection with one another and with the centre block being by means of a wooden corridor in the rear.

Internally they present some marked contrasts when compared with the old wards. There is, first of all, a proper day-room, large, bright and commodious, with a beautiful view from the windows. There is no dark wainscotting, which lends so much sombreness to the other wards, while the lavatories and bath rooms are tiled and more commodious. There is ample light in every part of these buildings, and had the work of construction been well done, there is no doubt but that they would have satisfactorily met the expectation of the management. The 1897 building possesses an isolation apartment for noisy patients, while that attached to the 1898 building is in the shape of a pavilion.

As soon as the first building was completed in 1898, it was occupied by male patients. The other cottage was finished the next year, 1899, and was furnished suitably for occupation by the female patients. It was not occupied, however, until the 20th of February, 1900. This afforded great relief to the female department, as it provided two wards for the accommodation of those female patients who had, up to this time, been accommodated in one small ward. It further enabled the management to place by themselves those patients who presented some hope of recovery. At the time that these additions were undertaken, provision was made for one general system of heating, which it was decided should be by steam.

With this object in view, a central boiler-house was located to the rear of the main building, and to secure sufficient fall in the return pipes the boiler-room was placed fifteen feet below the surface of the ground. Three new large safety boilers were installed, while all the coils and radiators in the old building were re-arranged to correspond with the system placed in the new buildings.

Two stories were built above the boiler-room, the first one being on the ground level and affording accommodation for the steward's several store-rooms. To the rear of this and attached was built a two-storied structure, 64 feet by 40 feet, the ground floor being taken up with a kitchen, scullery and pantries, while the up-stairs was arranged for a combined associate dining-room and amusement hall, with the corridors which connect the buildings in the rear running into it.

During 1899 the old amusement hall, which had been abandoned for the new, was remodelled and made into an infirmary ward, with a large and well-lighted operating room in conjunction. The ward, which will accommodate six patients, has not yet been opened, but is in readiness. At the same time a new brick mortuary was erected at a convenient place in the rear grounds. It is provided with a well-lighted room for post-mortem examinations, and the floors all through are of cement. The last alteration was the enlargement of the Superintendent's office by the addition of a bay window. Altogether, the years 1898 and 1899

When this work was completed it was suggested that the waste steam from the laundry be used to provide power to light the Institution by electricity, but when the plant was installed it was found that a much higher pressure of steam would be required to run it than that usually carried in our boilers, so that the plant really became a separate and distinct one by itself, and has proved very efficient up to a certain point, but is very much too small to be entirely satisfactory.



The only attempts that had been made to provide work-shops was a shed which the carpenter had set up for himself and which served as a carpenter shop and general lumber room, while the plumber usurped a corner of the laundry.

At the close of the year 1898, there retired from the service an officer who had served the Institution in various capacities for the period of almost 24 years. I refer to James Phillips, our late steward. The service he rendered was marked by the most conscientious and faithful performance of duty, and what he was worth as an officer in charge of an all-important department can never be estimated. He joined the service as an attendant on March 1st, 1875, was made "Superintendent of the Asylum" September 1st, 1878, and finally steward on January 1st, 1885, retiring at the ripe age of 75 years.

During the year 1899, the Medical Superintendent being laid aside with a severe illness, an assistant was appointed, and the writer was chosen as the first to hold that appointment.

Thus at the close of the century this Institution, whose name had been changed by the new "Hospitals for the Insane Act" of 1897 from "The British Columbia Asylum" or "The Provincial Asylum" to "The Public Hospital for the Insane," had grown until it possessed ten wards and a cottage, with a total capacity of 310 patients. These continued extensions had taken a great deal of the land that had been improved and used for garden purposes, and this will explain, in a large measure, how it is that, after thirty years, the extent of ground under cultivation is so small.

Little can be added as regards important events to what has been set down in the foregoing history, although much more might have been done in the way of embellishment, which I did not consider needful.

I now beg to submit the accompanying statistical tables, some of which are entirely new, whilst others have been altered. A report of this description is of interest not only within the Province, but in all other places where institutions of this kind exist, for the purpose of statistical information and comparison, and if this Report is to accomplish this purpose, the tables should be made to conform with those in vogue everywhere else.

It is in this way, by the exchanging of Reports by the Superintendents of Asylums the world over, that much valuable information is obtained. I trust that this will be sufficient explanation for the course I have adopted in altering the tables submitted.

#### ADMISSIONS.

The admissions for the past year have been more than in any previous one. They consist of 89 male and 26 female patients, making a total of 115, which is 2 more than in 1900. Five were admitted upon urgency forms from outlying districts, attesting the value of this statutory provision. The Yukon Territory contributed the same number of patients as in the previous year, viz, 10. Single men predominated in the number of male admissions, there being 53, compared with 27 married, a matter easily accounted for by the predominance of single men throughout the Province as a whole. Twenty of the women were married, 5 single, and 1 widowed. In the matter of education, 102 had either a common or superior education, and the most of the remaining 13 were Asiatics, about whose attainments I was not informed. As to place of birth, England leads with 25, while 20 were born in United States and 19 in Ontario, the rest being distributed generally. Four Japs and 4 Chinese were admitted, but it is remarkable that not one native British Columbian, either white or red, was admitted. Table No. 8 shows that the coast district, including the Yukon and Atlin, supplied 83 of the admissions as against 32 from interior points. The ages of those admitted ranged all the way from 18 years to 80, although the most common ages were between 35 and 45, also between 50 and 60 years. Sixty-six were said to be first admissions, as were also, possibly, a large

proportion of those classed unknown. A fairly good proportion were admitted early in the course of the disease, and close observation of our discharge records will show that the vast majority of the recoveries came from the ranks of the early admissions. It is a great mistake for the friends of patients to keep them at home until all hope of recovery is gone, and to send the patient in only as a last resort, after he has become to them unmanageable.

As will be observed in Table No. 13, a great majority of the patients could not be classified in respect to heredity, but in 17 cases it was clearly ascertained that mental or nervous troubles existed in one or more of the blood relatives. Table No. 14 shows that the chief alleged causes of the disorder were similar to what we find in other reports, namely intemperance and vicious habits. No less than 20 of the 115 admissions were due directly to intemperance, and in how many of those cases classified as unknown who can say. I feel that if men throughout the Province at large, who are given to over-indulgence in stimulants, could behold for a brief space what in language is indescribable in connection with the closing scenes in the lives of many of these unfortunate and unhappy wrecks from intemperance and vice, there would be an improvement in these statistics.

In 35 cases the bodily health was average on admission, while in 63 cases it was reduced and in 17 others greatly reduced, two or three being practically moribund. Only one case was admitted twice during the year. The table of diagnosis, which is offered for the first time, shows that out of the 115 patients admitted only 47 presented any prospect of recovery, while 51 were either completely demented or progressing rapidly toward that state. Three cases were congenitally deficient, and thus hopeless. There were 14 cases of general paresis admitted, which formed 12 % of the total number—a rather startling fact, when one considers that it is one of the worst forms of disease and always incurable. Whether the climate has anything to do with the virulence displayed by this disease in this country, I am not prepared to say, since I find it so difficult to get a correct history in such a large percentage of the cases.

Before leaving this section I would devote a few lines to the matter of admitting patients of criminal tendency. During the year we admitted 7 criminal insane and 1 insane criminal, which, with those already in residence, brings these undesirable classes into prominence here. It has always been the common practice to ignore section 26 of the Act, and to place these patients on any ward where it was convenient, which cannot be avoided so long as the wards are so full and no special provision is made for this special class. On the other hand, we cannot escape having them, since this is the only Institution in the Province that cares for the insane, but certainly special accommodation should be prepared soon for such cases.

#### DISCHARGES.

The total number of discharges for the year is 60, 44 males and 16 females. Forty were recovered, 14 improved, 5 unimproved, and 1 not insane. The number of recoveries is the highest reached in any one year, though the percentage on admissions does not come up to that of some past years, as set forth in Table No. 2; but those figures must not be taken too seriously, since I have discovered instances in the records of those years where even cretins were discharged recovered. I shall spare no pains to have the records added to this table by me correct, and shall not place doubtful cases under any but the proper heading.

I would draw your attention to Table No. 18, which shows that 25 of the 40 who recovered were admitted during the first month of the malady, and 8 more within the second month, showing, as already mentioned, the wisdom of early removal to the Hospital. I do not claim that cases do not recover at home sometimes, but I do insist that the percentage of such cases is very small, and that before deciding to adopt this course the friends should get medical advice as to whether the case is a suitable one for home treatment or not.

Among the discharges unimproved was the entire lot of Japs, 3 in number, whom the Japanese Consul kindly undertook to send home, provided I placed them on board the steamer, which I gladly did. In the same way I have not lost any opportunity of deporting an Asiatic, and have succeeded in getting rid of a great number; but during the past year I had a new experience, in having one of them return from China and enter the country the second time, so that it would not seem as if all that were necessary was to send them back home, but they require to be kept there.

#### DISCHARGES ON PROBATION.

There have been 46 patients discharged on probation during the year, of whom only 3 had to be returned. This statutory provision is a most useful one, but in this Province, where so many of the patients are friendless, I think its scope is not wide enough. Before a patient can leave on probation, some friend has to come and sign the bond; but where there is no friend, the Medical Superintendent should have the power to grant probation, and, by means of the Provincial Police service, keep a friendly eye upon the patient for a time.

#### ESCAPES.

On account of the greatly increased number of patients who were engaged during the year in clearing land and building shops, there was an increase in the number of attempts at escape, and of these some were successful, but in no instance was the patient long unaccounted for. Altogether 12 succeeded in getting from under the eye of the employees for a longer or shorter space of time. Seven were away less than one hour; one reached home, where he was allowed to stay for some months. Three were inebriates who had recovered from their acute alcoholic condition, and were shortly to be discharged at any rate. They went to their compatriots and got work, so were left unmolested. The last was an interesting case, in that he suddenly recovered the next day after his escape, and while making for the mountains. As a result, he wheeled about and made for the Coast, where he got work, and when he had satisfied himself that he was quite well he reported to me his whereabouts, and being allowed probation, is doing well. From this it would appear as if escapes were at times not an unmixed evil, yet everything is being done to prevent such occurring; but I feel prompted to say that there is no Hospital for the Insane, that is treating its patients at all fairly, that does not have an occasional elopement, since a certain degree of liberty is absolutely essential to recovery. The moral nature of a patient has to be appealed to constantly, and his sense of honour stimulated. It is worthy of notice that, of the large number of patients who have occupied the "open-door ward," which was instituted during the year, not one broke his pledge; however, this good record cannot always be expected, and occasionally a patient will fall from grace and, throwing his pledge to the winds, run away. Notwithstanding that, the system is good and the benefit accruing compensates a thousand times for any disadvantage.

#### ACCIDENTS.

The accidents of the year were not numerous, but at least one might have had a serious termination if prompt surgical measures had not been taken. A gang of Chinese patients were out working on the grounds in charge of an attendant, when, without warning, one who was working with a pick attacked another, inflicting a wound in the left lumbar region which extended into the kidney itself. Surgical measures were adopted, with such success that the patient soon recovered.

The Chinese are peculiar, and we suffer from the disadvantage of not knowing their language, so are ignorant of what friction may occur between them until some overt act reveals their frame of mind. However, such viciousness as evidenced above is unusual, and can only be guarded against when once it is known to exist.

During a slight scuffle, while coming in from the airing court, one patient threw another down and broke the point of one of his ankle bones; but this man also made a complete recovery, although advanced in years. The last case was one of partial suffocation in a female parietic, from attempting to swallow a large piece of meat without chewing it. This case was resuscitated after life had apparently fled, and she completely recovered from the effects.

#### DEATHS.

The general health of the inmates and staff has been very fair, and no epidemic of any kind has occurred amongst us. A case of measles was admitted, but isolation was successfully carried out. I usually seize upon the long winter months, when the patients are confined to the wards mostly, to vaccinate all who have not been vaccinated by me before, and so I trust we shall never be caught napping while small-pox prevails to such an extent on the American coast. In this way last year I performed over 100 vaccinations, with fair results.

The total number of deaths for the year was 25, being four less than in 1900. General paresis was the cause of death, directly or indirectly, in 12 cases, or about half the entire number. Not only is this disease very prevalent on the Coast, but it is very virulent in its nature. In the older parts of Canada it is not uncommon to see cases lasting from eight to ten years, but the average duration of the disease here is about eighteen months. One of the old-timers dropped dead while working on the front grounds. He was one of the first admissions in 1872. I regret that the year did not pass without leaving me to record a suicide. The case was that of a Chinaman who had been three and a half years resident and had come to be much trusted. He was naturally cheerful in disposition and a good worker, and such a thought as that he might be suicidal had never been for a moment entertained. The Chinese ward becoming crowded, this man was allowed to sleep in a room that had belonged to an attendant, but was not so used just at the time of this occurrence. The electric lighting fixtures were not altered, as it was expected that the room would again be used by an attendant. The wire to the electric lamp was very long, to permit of its free removal from place to place as required, and this was the agent used to bring about death. Some time in the early morning hours he sat up in bed and deliberately wound this cord about his neck, throwing the lamp over the other part at the side of his head and thus avoiding knots. He then gently let himself over the edge of the bed so that his weight would produce a strain, and yet careful not to break the rosette from the ceiling. Thus, with his legs still on the bed and his hips almost touching the floor, he died without a struggle. An inquest was held, but no blame was attached to any one.

Another attempt was made in which a Yukon patient figured, but he was not successful; although he had succeeded in suspending himself with a towel in the lavatory, he was instantly detected by the attendant, to whom all praise is due for his watchfulness. However, when I consider the number of suicidal patients who have been under care during the past year, I am thankful that we have no other fatalities to record, and feel that every credit is due those who have the direct oversight of the patients.

In these days, when the scourge of tuberculosis is so rampant in every charitable institution, it should be a matter of much gratification to the Government of this Province to find that it possesses so large a hospital as this, showing no death from that disease for the past year, and no case in residence, which fact, I think, places the Institution in a unique and enviable position amongst the Asylums of the continent.

#### TREATMENT.

The methods of treatment at present pursued in Hospitals for the Insane differ greatly from those in vogue thirty years ago, and that this applies to this particular Institution will

be observed from a perusal of the history. That we have not yet reached the desired point of efficiency and excellence I must confess, and if we are ever going to, much will have to be done in the way of improving the equipment and if our percentage of recoveries is to be increased by such a procedure then we should not stop short of the required expenditure to place ourselves beyond the reproach of these unfortunates whom the law commits to our care and control when they have lost the ability to perform these functions for themselves. Restraint, which so characterised the early plan of treatment in this Institution, is dying away, and we are finding each successive year less need for the measures once used.

The cure of the insane is not to be compassed by the use of medicines alone, nor of any other single measure, but rather by every means that will tend to put the body in good condition and divert the mind from its morbid action. The most useful medicines we possess in this work are the nervine tonics, but there are no specifics. Dessicated thyroids have an action that is sometimes very beneficial in a certain type of disease, but its exact manner of working is not as yet clearly understood. It has seemed to aid recovery in a few cases during the past year. Another animal product was offered during the year, but its trial was not attended with success in my hands.

Nothing, however, is more important in the treatment of insanity than good feeding, that is, the food provided must be good in quality, plentiful in quantity, and properly prepared and served, and in this regard I feel that some advance has been made during the past year to which I will refer at greater length under another heading. In looking over some reports I had received, I discovered what is stated to be the ration list prepared by Prof. Austin Flint for use in the New York State Hospitals, where great attention is paid to dietary treatment. This list is as follows—

	Daily per capita allowance
Meat (bone included), fish and poultry	12 ozs
Flour, corn meal, macaroni	12 "
One egg	2 "
Sugar	2 "
Butter	2 "
Cheese	1 "
Rice, hominy and oatmeal	1½ "
Beans and peas	1½ "
Coffee, in berry and roasted	½ "
Tea (black)	¼ "
with fresh vegetables and fruits	

This is what should be consumed per capita by the Institution as a whole—officers, employees and patients—and not, as one might think at first glance, the amount to be actually consumed by each patient daily.

I have not been able to make our table conform exactly to that of Prof. Flint's, as we do not bake our own bread and so do not know the weight of flour used. However, I venture to submit the following for comparison, the amounts here mentioned being those consumed per capita in this Institution last year—

	Ounces
Meat (with bone included), salted meats, fresh and salted fish, poultry	12 98
Bread and buns	17 57
Flour, cornmeal, cracked wheat, macaroni and corn starch	2 08
Eggs	187
Sugar	2 00
Syrup	658
Butter	1 50
Cheese	063
Rice, barley, oatmeal, sago and tapioca	2 06

Beans and peas . . . . .	65
Dried fruits, prunes, apples, peaches, raisins and currants . . . . .	98
Coffee . . . . .	17
Tea . . . . .	88

In glancing over these lists one cannot help but note the great disparity in the quantities of eggs and cheese allowed. The latter has never been furnished the patients here on a pound of the expense, but the extra allowance of meat may be regarded as an equivalent. However, I would like to see my patients getting more eggs and milk, which I regard as better for them than meat. Most asylums can afford to do this because they possess their own herd of cows and their own poultry ranches, but here we have to purchase these commodities, as we do all our other supplies, and we shall never be able to do any differently until we have a farm colony of our own. As for eggs, I have not yet heard of any other hospital for insane which has to pay 25c. per dozen the year round, as we do, to remedy which we should have to engage extensively in poultry-keeping. At present eggs are not allowed except to sick patients, or private patients, so that, except in cake, the generality of the inmates taste them but once a year, namely, at Easter. There is also a shortage in small fruits in season, because our garden is so small, but each year I trust we shall be able to add to it somewhat.

Next in importance to proper feeding comes regularity in the living habits and long hours of rest. As these are always inseparable from asylum life, we may take it for granted that they are provided; on the other hand, this part of the treatment may be overdone, and I fear that with us some of the patients are kept in their rooms too long at night, a matter which, I hope, we can remedy shortly.

I would now deal with measures that form an efficient adjunct to those already mentioned for the cure of insanity, as well as for the alleviation of its distress in chronic cases. I refer to employment, amusement and recreation, but most of all to employment.

I regard employment for the insane as an absolute necessity, and of its beneficial results there can be no question. Without it the life of many patients in the Hospital would be simply intolerable, on account of the monotony and ennui which must result from inactivity amidst never-changing surroundings. I have always considered the provision of occupation for the patients under my care as one of my foremost duties, and I know that in this I am only following in the footsteps of the leading alienists of the day. That there are many difficulties and dangers attendant upon the employing of the insane I will admit, but these must simply be surmounted in the interests of the patients themselves. Happily, it occurs that in affording our patients employment we are also furthering the economical maintenance of the Institution, a matter of no small moment, but one, indeed, which exercises the management a good deal at times. With these facts before us we cannot be too thankful to see springing up about us a set of work-shops, which will soon embrace a good variety of trades, and render it possible to afford employment in winter as well as in summer.

Like employment, amusement and recreation are essential and fundamental requirements in the treatment of the insane. They form, in fact, so important an element that they should receive constant attention, and not be undertaken in the desultory and indifferent manner so under this head as here, where not even a campus is available. I trust that I shall be enabled this year, with your kindly co-operation, to make some necessary advance along these lines.

#### AMUSEMENT.

The customary fortnightly entertainments and dances have been held during the winter months. These are looked upon by the patients as red-letter days and afford much enjoyment,

which, I am satisfied, could be increased by adding to their frequency. Special treats were afforded by a visit from the Robson Orchestra early in the year, and by the local Banjo and Guitar Club, under the leadership of Mr. Cunningham, of Vancouver, later, while at exhibition time a large number of patients attended the fair as usual. Of the 82 who attended, 42 were admitted free by the kindness of the directors. When the Horticultural Society held their first annual Chrysanthemum Show we were not forgotten, and by the kindness of Mr. Dashwood-Jones, eight of our female patients attended and enjoyed the beautiful floral display.

Two more billiard tables were secured and placed on the male wards, where they have been greatly appreciated and enjoyed, not to mention the improvement in the appearance of the wards so adorned. For the women a piano was purchased and placed on the upper ward, and this has made a great change for those patients. Music is something that possesses a place of its own in the lives of most all persons, and nothing can take its place. To say that it is a great treat to the patients of this Institution but feebly states the case, and if it were possible I would like to place a piano upon every ward, and hope some day it may even come to pass.

A fair amount of reading matter has been distributed about the wards in the shape of daily papers and magazines, some of which we purchase, but most of which are sent in by kind friends of the Institution. When our new bindery is equipped I hope to be able to bind such magazines as I procure and place them in permanent libraries in the various wards.

There is a great deal to be accomplished here yet in the field of amusement before we shall have advanced beyond its outer borders, but at present we are limited by various existing circumstances that time will wear away.

#### DIVINE SERVICE.

Service has been held, as usual, every Sunday afternoon in the general assembly hall, conducted either by the Medical Superintendent or by some of the clergymen of the City. A goodly attendance has marked their course throughout the year. Quite a few of the patients have enjoyed the privilege of attending the City Churches regularly. In some cases nothing else could have afforded the solace and satisfaction that this privilege has given, and in no instance has there been anything occur to mar the repose of confidence thus placed. The Roman Catholic patients had their one service, as usual, conducted by one of the parish priests.

#### WORK.

There was a great increase in the number of patients that were sent out to work during the past year, and, consequently, there was a great increase in the amount accomplished. Referring again to the tables, we see that the patients did 48,307 days' work in one way or another. Table No. 22 shows a marked increase in the number working on the grounds, and with the carpenter, for the reason that in these two departments special efforts were being made to improve the premises.

On the wards there was an increased number of workers, while in the kitchens and in some other departments the work was about the same as last year. In the tailor and shoemaker shops the products were about as usual, while the women not only increased their labours but branched out along new lines, and began to make mats for the adornment of their wards, which has been a very welcome innovation. A great deal of work has been accomplished in the laundry, notwithstanding its lack of appliances, and much credit is due to the laundryman, who has so skilfully handled his gang of Chinamen, whom it is not always easy to keep in good washing humour. In the carpenter shop many fine articles of furniture have been manufactured by a skilful patient. Among these things were a fine maple desk for the chief attendant's office, a type-writer cabinet for the Medical Superintendent's office, a key

cabinet for the same office, and a very large filing cabinet, all of which are beautifully constructed and worth a good sum of money. In the new blacksmith shop several patients have been employed at times, the chief work being the sharpening of picks for the excavating gang, and drills for the rock splitters. This work was formerly done in the City, and so a saving has been effected with benefit to the inmates.

#### PRODUCTS OF THE FARM AND GARDEN.

The year has been a good one in general with our farm and garden departments, although the cut-worm was abroad in large numbers, and for a time threatened to exterminate some of the vegetables, but the men in charge took hold promptly, using such measures as were advised, and apparently with good results. The early cabbage was also attacked by a small worm that bored into the root of it just at the time when it was delighting the eye of the Gardener. Not much of the crop was left to us. A frost in July damaged the fruit a great deal and the returns were rather behind that of the previous year.

The Farmer had the misfortune to lose several of his pigs through some disease, the nature of which could not be cleared up, although a Veterinary made an examination. However, when changes were made in the location and housing of the herd all signs of disease completely disappeared.

A value has been set upon the produce of the farm upon the basis of our contract prices, and where these did not cover the product we marked them at market value, and by so doing we find that our farm saved us \$2,251.71 last year, likewise the garden, which I have kept separate, as it is under separate management, \$445.12. Of course the latter does not represent all the returns for the labour of the Gardener, and it is only fair to that officer to say that the garden is but a very small portion of his domain, as he has all the ornamental grounds to look after as well, which in area are about equal to all the rest under cultivation. Besides this, the fruit garden is not enclosed, so that nothing is more easy than for the paroled patients to take pleasant walks through these attractive quarters and incidentally prevent the Gardener from scoring all the fruit that ripens. A reference to Table No. 24 is interesting, inasmuch as it will show that for the first time in the history of the Institution the Matron preserved fruit for the use of the employees in winter, as is done in other places. Hitherto it had been the custom to use the fruit as fast as it came from the gardens, and when winter came to depend upon dried apples and prunes altogether.

The following schedule shows the products of the farm:—

Artichokes . . . . .	760 lbs.	\$ 15 20
Beets . . . . .	1,380 "	9 66
Cabbage . . . . .	13,972 "	244 49
Carrots . . . . .	18,362 "	82 63
Cauliflower . . . . .	205 "	4 10
Cordwood . . . . .	37 cords	120 00
Corn (ears) . . . . .	430 dozen	64 50
Ducks . . . . .	15	9 00
Eggs . . . . .	25 dozen	6 25
Fowl . . . . .	12	4 80
Hay . . . . .	1½ tons	15 00
Parsnips . . . . .	24,158 lbs.	169 11
Pork consumed . . . . .	5,144 "	462 96
" sold . . . . .	7,006 "	447 27
Potatoes . . . . .	48,842 "	451 79
Turnips . . . . .	24,158 "	144 95

\$2,251 71



*Products of Garden.*

Beans (string).....	357 lbs.	\$ 7 14
Cabbage.....	2,999 "	48 83
Carrots.....	1,288 "	5 80
Cauliflower.....	263 "	5 26
Celery.....	228 "	11 40
Leeks.....	473 "	9 46
Lettuce.....	244 dozen	36 60
Onions.....	120 lbs.	1 80
Peas.....	100 "	3 50
Potatoes.....	1,182 "	10 94
Radishes.....	239 "	2 39
Rhubarb.....	292 "	14 60
Squash.....	100 "	3 00
Tomatoes.....	352 "	35 20
Turnips.....	28 "	17
Apples.....	5,181 "	129 52
Blackberries.....	50 "	2 00
Cherries.....	33 "	2 64
Currants, black.....	221 "	8 84
" red and white.....	153 "	7 65
Gooseberries.....	401 "	20 05
Grapes.....	14 "	1 40
Peaches.....	96 "	9 60
Pears.....	205 "	6 15
Plums.....	547 "	10 94
Raspberries.....	362 "	28 96
Strawberries.....	266 "	21 28
		\$445 12

## CHIEF EVENTS OF THE YEAR.

*Change of Management.*

Early in the year the Hospital received a visit from Dr. C. K. Clarke, Medical Superintendent of the Rockwood Hospital (for insane) at Kingston, Ontario. He came under instructions from your Department to inspect the Institution and examine into its workings and report to the Government. After a most searching investigation, which began on January 18th and lasted nearly a week, Dr. Clarke recommended that certain changes should be made in the system, with a view to introducing greater economy in the use of supplies, and to make the general plan of management to conform to that which has proved to be the most successful at the present day.

It was apparent that to bring about the required changes would entail an immense amount of work, and Dr. Bodington felt constrained, through the advance of his years, to relinquish the labour to younger hands, and seek well-earned rest and retirement in the land of his birth surrounded by the members of his family and his friends. In this connection I can truthfully testify that no greater general sorrow has been witnessed throughout the Institution than that occasioned by the departure of the one who had taken the helm at a very trying time, and had safely piloted the Hospital through some difficult passages, giving to it his best energy and utmost attention, though never in robust health, and having already arrived at that period of life when men hope to be able to forget labour and worry. Dr. Bodington's resignation was accepted by the Government, who voted him a retiring allowance for his faithful services, which terminated on February 28th, after 6 years of most arduous toil, during the greater part of which he was alone in charge of the Institution. His Assistant, the present incumbent of the chief executive office, was appointed his successor.

It was found advisable to make certain changes in the staff to begin with, in order that proper co-operation might be secured in carrying out the new system of management, which it was at once seen was not in favour with some. With loyal co-operation upon the part of the staff in an institution of this kind, a superintendent of very mediocre ability might successfully carry on a good work, but it would be impossible for a man even of the highest endowments to do justice to his patients and his employers, while a lot of underhand scheming is going on amongst his assistants, with a view to making trouble. The very first change attempted precipitated a crisis, as the result of which one male attendant was dismissed and five others were permitted to leave at once, all of which vacancies were filled immediately by young men from the City. This matter would have been trifling in itself, had it not been for the disturbance made in the public press as a result of the sensational and lying reports circulated by the disgruntled malcontents whom we had dropped from the staff, but as soon as the truth became known my attitude was upheld.

One of the first changes inaugurated was that whereby the kitchen department was placed under the control of the Matron. It had previously been managed solely by the cooks, who, not being in touch with the wards, were unable to dispense the food to the best advantage in order to prevent waste. The diet sheets are now made out fortnightly, to insure a healthy degree of variety. In short, this service, which used to be the source of so much complaint and unpleasantness, has been made thoroughly efficient and complaints are very rare.

In the outside department a distinction has been drawn between the farm and the garden, and a separate officer is now in charge of each, with his domain distinctly outlined as well as his duties.

As touching the wards, I saw that there were enough trustworthy patients who, if gathered together, would fill one ward, which they might be able to take care of themselves with some oversight, and at the same time have the privilege of open doors; accordingly, the "open-door ward" was established and has proved successful, so that two less attendants were required on the staff. These patients were also allowed to remain up at night until 10 p. m., for reading and social games. By another arrangement the patients who were willing and anxious to work, but not on parole, were gathered together in one ward and went out to work every fine day, which they seemed to enjoy very much.

In the offices I had a very busy year. The method of keeping the correspondence had become so antiquated that it had to be all re-arranged, and in this connection all the admission papers of every patient from the first had to be gone over and dealt with. New filing boxes and a filing cabinet were made and installed in the office. In ascertaining the per capita cost of maintenance, as I will intimate in this report later, I spent a great deal of time, and every voucher in our possession had to be dealt with separately, in order to classify the expenditures according to the plan to be mentioned under the section on expenditure.

#### IMPROVEMENTS.

During the year improvements were effected in nearly every department. In the centre building it was found that the new Infirmary was impracticable in the form in which the means of security against escape from the ward, as well as the means of communication to the basement another partition was built, to shut off the dust and steam coming from the boiler room. An office was made for the Chief Attendant by appropriating two rooms in B ward; this has the advantage also of enabling that officer to keep some oversight of B ward, which is the "open-door" ward. Suitable clothes-rooms were arranged in A, D and F wards to replace the small dark closets formerly used for that purpose. D ward was generally overhauled and

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decorated, so that now it presents a most home-like appearance and is by far the most handsome ward that this Institution has ever known. This work will be carried on until every ward in the house is made what it should be. The capacity of the ward was incidentally increased by three beds. The Superintendent's residence had to be completely gone over by the Plasterer, and the opportunity was taken advantage of to install gas-pipes in the principal rooms.

The Gate-Lodge was practically reconstructed and made more sanitary. It had formerly contained but four rooms, in which eight persons had to live, and contained no modern conveniences. It now has six rooms, besides a bath-room and water closet, also an entrance hall. The public entrance at the gate was also greatly improved in connection with this same alteration, and two porticos of handsome design were placed about it, the one on the inside and the other on the outside of the gate. The whole structure was artistically painted by ourselves, in colours not quite so sombre as those prevailing here in the past.

The eastern ends of the 1897 and 1898 buildings were cemented to keep the rain from soaking through the brick, and rendering parts of those buildings uninhabitable in the winter. Paint and oil were used as a finishing coat, and the appearance of the buildings has been somewhat enhanced. A stone retaining wall was built at the side of the kitchen and capped with cedar, with a protecting rail over that. On account of the frequent blocking of the sewers from the '97 and '98 buildings, it was decided to build brick traps in such a position as to catch foreign bodies before they would lodge in that part of the pipe, which is now from 12 to 15 feet below the ground. One was built for each building and securely covered. It was found necessary to take up the steam pipe to the laundry and replace it, as it had become completely rusted through and had been causing a great loss of steam intended for the dry-room. New pipes were laid and covered with asbestos in a tunnel built of brick and cement. A steam trap was placed on this connection, and has resulted in a great saving of steam and thus fuel.

The old iron sinks in the scullery rusted through and were replaced by porcelain ones. The front bank, where all the excavated earth for any number of years had been dumped, was graded and sodded by the Gardener, with the aid of patients. More remains to be done during the current year. The excavating which had been left unfinished by the chain-gang at the rear of the 1898 building was completed by us, and the high bank graded and sodded. A drain 600 feet long was put in at the top of the bank to prevent percolation of water through the bank. The telephone and electric light poles were removed from the front grounds, where they were unsightly, and were placed in the rear.

Chairs were substituted in two dining rooms for benches, and knives and forks were placed upon the tables, as well as spoons for the patients to eat with. In the past spoons only were allowed, except upon special occasions, such as Christmas.

Increased fire protection was afforded by the installation of a fire-alarm box of the same pattern as those used by the City, and connected with the City system. A hydrant, which was located in an unsuitable place, was moved to a better one, while the house for the hose-reel was moved and painted. The hose in all the wards was tested and defective portions discarded and replaced. The babcocks were attended to regularly and the lawn house supplied with new fire pails, of a better pattern than those on the wards. I feel that we should make some good ladders this year and keep them in readiness as we do the other fire apparatus. I hope to institute fire practice when the new shops-building is completed, and the outside employees are gathered there in the living quarters being prepared for them. Thanks to our proximity to the City, we have never felt that in case of fire we were utterly dependent upon our own exertions, and for that reason I suppose this department, usually so well equipped

and trained in other institutions of this kind, has been rather neglected here. However, it is advisable that whatever available men we have for the purpose should be trained so as to be able to assist the City Fire Brigade in the event of fire.

The Engineer recommended that steam traps be placed upon those portions of the system that were in his opinion causing the greatest loss of heat, and that the return pipes generally should be covered. To test the matter, three steam traps were installed and considerable covering done to the pipes, the results of which have been so satisfactory that we shall secure and place in position several more traps, in order to thus control the entire system and render it as economical as possible.

In no previous year has so much been accomplished in improving the ornamental and cultivated land belonging to the Hospital. A large area of new land, I should say about five acres, was cleared of trees, stumps and stones and placed under crop. Some days as many as 70 patients were engaged in this work. The results, both in improved health to the patients and in increased returns from the soil, were eminently satisfactory, and encourage us to go on and achieve greater results this year. In the fall, attention was turned to draining, and about 2,000 feet of tile were laid, so that the land should be in even better condition for the next crop. A lot of old shacks were cleared away in the rear and the pig-yards pushed farther away from the proximity of the buildings. A small house was erected and fitted up for killing and dressing our own pork, which has proved an economical procedure. The boundary fence was continued up the boulevard as far as possible, with the material on hand, and it is expected that the new appropriations will enable me to have it carried completely around the rear of our property, so that we may have a park for the ladies and a campus for the men.

#### NEW BUILDINGS.

An attempt was made during the year to fill, so far as the funds would allow, a long-felt want—namely, workshops. The first to be undertaken was a combined blacksmithy and plumbing shop. It was built of fir and measures 37 feet by 12 feet, with a lean-to at one end for a store-room for the Steward. The blacksmithy was fitted up with a brick furnace and large bellows, anvil, vise, and a general assortment of tools, many of which were manufactured there. The plumbing-shop has no fittings other than three good benches and plenty of room for those things which had been occupying space in the laundry for years. This work of construction was done by the patients, under the direction of the carpenter.

In the same way a paint-shop was built on a line with the other. It measures 24 by 12 feet, and is nicely fitted up with drawers, etc.

The chief undertaking of all, however, was the erection of a building 101 feet long by 36 feet wide, with a basement, two storeys and an attic, which for want of a better name I have called the "shops-building." This is the building the plans for which I had the honour to submit to you last spring. The first floor contains a carpenter-shop 50 by 36 feet, attached to which is a cabinet-shop and a finishing-room. There are also rooms for book-binding, brush and broom-making, mattress-making, lock and clock repairing, with a tailor-shop and shoe-maker-shop up-stairs. The second-storey also accommodates about ten employees, while the attic has four good-sized rooms. The basement is built with ten feet of masonry, and will occupy one-half the space under the building. The floor will be cemented and a hot-air furnace will be installed for the heating. The only outside assistance which we had to secure for this work was a master-mason for a month and an extra carpenter. The patients, under the direction of the employees, have carried on the greatest part of the operations, from the excavation to the shingling, which is about as far as we had reached at the close of the year. The completion of this building will be an important event in the history of the Institution,

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and I trust that the new appropriations will enable us to complete it, in order that we may prove what we have always contended, that the establishment of shops would be a great boon to the Hospital.

#### EXPENDITURE.

Before submitting to you the figures that represent the amount of our expenditure for the past year, I would venture upon a few remarks.

I understand that it was owing to dissatisfaction under this head that the Government appointed a Royal Commission to investigate the working of this Institution last winter, and I know that during the investigation the Commissioner endeavoured to ascertain the exact per capita cost of maintenance and could not, because of the system employed by us in keeping the accounts. This was not the fault of the Clerk at all, but of the system in use.

To remedy this matter, the Commissioner recommended that the Clerk be made Bursar, and be allowed to perform every function of such an office; that all accounts should pass through his hands, so that he might properly classify them, which is an indispensable requirement to satisfactory administration. This change was concurred in by yourself, and the appointment made with increase of salary, but as yet no change has taken place in the duties, and matters are no better than they were.

To explain how the accounts should be kept, in order that the per capita cost may be correctly computed, I would state as follows:—This Hospital for the Insane is an indispensable Government Institution, and as such is a Government asset, like all the other Government institutions of the land. It must, therefore, have two accounts, the one, capital, including the money spent in construction, improvements and primary equipment, every item of expenditure under this head having something tangible to show for it and being a permanent asset. The other account is that for maintenance, and includes the money spent on salaries, provisions, water, fuel, clothing, medicines and miscellaneous, as well as for repairs to plant and equipment, expenditures which leave no asset, but are incurred simply in carrying on the work for which the Institution exists.

Now the mistake that has been made here is simply this: The primary furnishing and equipment has been charged to maintenance, and no account taken of the \$17,000 worth of furniture and fittings that we now possess, and so it has been made to appear that maintenance was more costly than it really was, which was greatly to the disadvantage of the management, when comparisons were instituted between our per capita cost and that of other similar institutions.

Of course the original equipment deteriorates and wears out, but it is always maintained at a proper degree of fitness by the substitution of new articles from time to time, and *these* are charged to maintenance, so that the original equipment remains a permanent asset of full value.

On the other hand, I found that some amounts were charged to capital account that really belong to maintenance, and that some other departments were sharing our expenses. For instance, we never see our telephone or telegraph bills, while stationery comes from the King's Printer free of charge. These all belong to maintenance. However, the figures that I propose to submit have been placed under their proper heads, and have been taken from the vouchers submitted by us to the department for payment. They cover the entire period of the existence of the Hospital, and consumed a great deal of my spare time during the past year in compilation. The totals tally exactly with those in our books, only the headings being changed. I went to this trouble with the entire lot, since it is apparent, that to submit the figures for the past year under a different arrangement from those of the previous years would be very unfair to my predecessors, the results of whose management, from a financial point of view, are shown up in better light by the new adjustment.

Our expenditure for maintenance for the past year, as shown in Table A, herewith appended, was \$55,106.08, being about \$1,000 less than it was in 1900, notwithstanding the fact that we had an average of 26 patients more throughout the year. Dividing this amount by 269.56, which was the daily average number in residence, we get \$205.54 as the per capita cost. For the previous year it was \$244, so that there was a gratifying reduction of \$38.46 per patient. Had the per capita cost been the same as it was the previous year, \$10,370 more would have been spent for the same results, so that this figure represents the real saving.

Table B shows the per capita cost analysed under its various divisions, and a moment's reflection will show you that while the amounts mentioned in Table A are ever on the increase, those in B should remain stationary or decrease, and if any undue expenditure should occur it can be localised at once in this table.

Comparing the items for the past year with those for the one previous to it, we note that the reductions were chiefly in salaries, provisions, fuel and miscellaneous, but most marked in fuel, while there was an apparent rise in clothing. This latter is explained by the fact that the shoemaker was paid from the vote for "boots, etc.," instead of from that for salaries. While a reduction was effected in the expenditure for salaries, it was not by cutting the wages of anyone in the service (with one exception, which was accidental), but was due to the reduction of the staff by instituting the "open door ward," dropping the barber, plumber and teamster and one medical officer.

In the matter of expenditure for salaries, we cannot expect to compare figures with eastern institutions, where I know that the general run of employees are shamefully underpaid, and that, too, in a service that requires the best type of person that the country can produce. Nor yet can we hope to compare figures with those larger institutions which handle from one to two thousand patients, for the simple reason that a small institution requires nearly as many officers as a large one, but we may rest assured that as our numbers increase the per capita cost will go down and compare favourably with any Institution, under similar circumstances.

As already intimated in this Report, our expenditure for provisions must always be high while we depend upon the general purveyor for all the supplies used upon the table. A farm colony is the remedy.

As was anticipated, the most satisfactory reduction was in the fuel bill, and in this connection I would praise the Engineer for the careful way in which he handled the coal supplies. He set out to cut the fuel bill in two, and he almost succeeded, at the same time furnishing all the heat required as hitherto. We hope to make further reductions in this expense by improvements to the heating plant during the coming summer, but I do not think that we shall reach much below the present figure until we have a wharf and scow of our own to enable us to do our own delivering and deal directly with the mines.

The expenditure under capital account was greater than it was in the previous year. It amounted to \$7,134.58, of which \$1,840.53 was spent upon new furniture and equipment, \$104.20 on the medical library, and \$14.65 on new surgical appliances, the remaining \$5,175.20 being spent upon lands and works in the manner following:—

Outstanding accounts left by previous management . . . . .	\$ 166 75
Installation of weigh-scales . . . . .	150 00
Clearing and improving land for cultivation . . . . .	243 81
Slaughter-house for farm . . . . .	23 54
Re-constructing gate-lodge . . . . .	408 24
	\$992 34
<i>Carried forward</i> . . . . .	

<i>Brought forward</i> .....	\$992 34
Plumbing and blacksmith shops .....	233 80
Paint shop .....	120 03
New "shops-building" .....	2,143 70
Improvements to wards and infirmary, painting, etc. ....	206 92
Improvements to interiors other than wards .....	298 44
Cementing the north ends of 1897 and 1898 buildings. . . . .	108 86
Steam traps, valves and asbestos covering for heating plant ....	318 87
Extensions to lighting service .....	29 96
Extensions to hot and cold water service .....	81 27
New brick culvert to laundry for steam pipes .....	129 35
Fire-alarm box, moving hydrant, etc. ....	161 38
Improvements to sewers, brick traps, etc. ....	38 30
Fixing grounds next to buildings to protect the latter .....	48 50
Retaining wall in rear of kitchen .....	17 95
Netting about tennis lawn .....	10 45
Sundry small works, fencing, laying sidewalks, etc. ....	125 00
Goods in stock not yet used, paint, glass, hardware, etc. ....	110 08

\$5,175 20

Including all in a grand total, we have expended \$62,540.66 during the year 1901, which is about \$1,000 less than the grand total for the year 1900.

TABLE A.

Showing the average number of patients in residence each year, and the total amount spent for maintenance, with the per capita cost.

Year.	Average number in residence.	Maintenance expenditure.	Per capita cost.
1872 (81 days).....	16.57	\$ 2,265 25	\$616 00
1873.....	16.07	7,841 94	487 96
1874.....	16.76	8,232 41	491 20
1875.....	27 42	9,892 38	360 77
1876.....	36.41	12,558 18	344 91
1877.....	34.61	12,917 17	373 26
1878.....	36.52	13,985 05	382 93
1879.....	38.17	10,253 72	268 63
1880.....	45 42	10,552 18	232 32
1881.....	47.18	10,691 76	226 62
1882.....	47.86	11,343 65	237 02
1883.....	48.73	11,829 11	242 75
1884.....	48.70	11,843 94	243 20
1885.....	54.67	15,555 87	284 54
1886.....	59.11	15,334 43	259 42
1887.....	73.55	15,945 22	216 70
1888.....	79.43	16,261 06	204 72
1889.....	71.30	15,657 79	219 60
1890.....	78.78	17,577 80	223 13
1891.....	119.87	21,767 03	181 50
1892.....	125.24	23,518 37	187 80
1893.....	133.92	25,904 96	193 36
1894.....	148.64	26,495 83	178 25
1895.....	162.97	31,587 89	193 83
1896.....	171.43	32,001 40	186 67
1897.....	188.91	36,224 76	191 75
1898.....	216.53	46,420 25	214 38
1899.....	226.44	54,917 45	242 52
1900.....	243.24	58,349 20	244 00
1901.....	269.56	55,406 08	205 54