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OFFICERS OF THE ASYLUM. MANAGERS.

FRANCIS S. LATHROP
BEACH VANDERPOOL
SAMUEL LILLY, M. D
ANTHONY RECKLESS
GEORGE A. HALSEY
WILLIAM G. LATHROP
JOHN S. READ

OFFICERS OF THE BOARD OF MANAGERS.

FRANCIS S. LATHROP President

SAMUEL LILLY, M. D Secretary

EUGENE VANDERPOOL Treasurer

RESIDENT OFFICERS.

SUPERINTENDENT AND PHYSICIAN	H. A. BUTTOLPH, M. D., LL. D.
ASSISTANT PHYSICIAN	EDWARD E. SMITH, M. D.
SECOND ASSISTANT PHYSICIAN	A. K. MACDONALD, M. D.
STEWARD	MARTIN B. MONROE
MATRON	Miss MARY TABOR

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To His Excellency, Joseph D. Bedle,

Governor of the State of New Jersey :

The Managers of the " State Asylum for the Insane, at Morris-town, N. J.," in conformity with the tenth section of the act for organizing the same, respectfully submit their first annual report, as follows :

On the eighth day of June, the Board of Managers was organized by the election of Mr. Francis S. Lathrop, President, and Samuel Lilly, M. D., Secretary; and, subsequently, viz.: on the twenty-seventh day of July, Mr. Eugene Vanderpool, of Newark, was elected Treasurer, and filed his official bond, which was approved by the Managers and placed in the custody of the President.

The first matter which demanded the attention of the Board was in compliance with the first and second sections of the above named act, viz.: to unite with the Managers of the " New Jersey State Lunatic Asylum," and by and with the consent of the Governor of this State, " to make, adopt and enforce rules and regulations for the apportionment and distribution to and between the said Asylums," *(i. e., "* The New Jersey State Lunatic Asylum " and the "State Asylum for the Insane, at Morristown, N. J.,") " of such insane per-sons as are now or may hereafter he sent to an Asylum of this State, by virtue of any law thereof, and for the removal of insane patients from either of the said Asylums to the other."

This duty was performed, and the following rules and regulations were adopted and received the approval of Your Excellency :

"Rules and regulations for the distribution of patients, now in ` New Jersey State Lunatic Asylum.' "

All insane patients now in the "New Jersey State Lunatic Asylum," who have been sent to said Asylum from the counties of Atlantic, Cape May, Cumberland, Salem, Gloucester, Camden, Burlington, Mercer, Ocean, Monmouth, Hunterdon, Somerset and Middlesex, shall remain in said Asylum ; and all patients now in said " New Jersey State Lunatic Asylum," who have been sent to said Asylum from all the remaining parts of

the State, shall be removed from said Asylum to the " State Asylum for the Insane, at Morristown ;" *provided, however,* that the fore-going regulation shall apply only to insane persons who are supported or to be supported in said Asylums at the public expense, and not to insane persons admitted or to be admitted therein, under the special agreements authorized by law.

All insane persons to be removed hereunder shall be delivered by the Superintendent of the "New Jersey State Lunatic Asylum," into the custody of the Superintendent of the "State Asylum for the Insane, at Morristown," for the purpose of such removal at such rail-way stations near the Asylum, as may from time to time be agreed upon between the committees from the respective Boards of Managers of said Asylums appointed for that purpose, and shall be thence transported to the " Mate Asylum for the Insane, at Morristown," at the charge and expense of the Board of Managers thereof.

Rules and regulations for the division and apportionment of patients hereafter to be sent to the " New Jersey State Lunatic Asylum " and the "State Asylum for the Insane, at Morristown, N. J."

All insane persons who may hereafter be sent to an Asylum of this State, by virtue of any law thereof, from the counties of Atlantic, Cape May, Cumberland, Salem, Gloucester, Camden, Burlington, Mercer, Ocean, Monmouth, Hunterdon, Somerset and Middlesex, shall be sent to and received into the " New Jersey State Lunatic Asylum ;" and all such persons so sent from all other parts of the State, shall he sent to and received into the "State Asylum for the Insane, at Morristown ;" *provided, however,* that the foregoing regulation shall apply only to insane persons who are supported or to be supported in said Asylums at the public expense, and not to insane persons admitted, or to be admitted therein, under the special agreements authorized by law.

The Managers have also, in conformity to section sixth of the act, "established a code of by-laws for regulating the appointment and duties of officers for the Asylum; for the conditions of admission, support and discharge of patients, and for conducting in a proper manner the affairs and business of the institution."

These by-laws, together with the organic law and references to all the acts now in force and referred to in the act for organizing the Asylum, together with proper forms and directions for the admission of patients, have been printed in pamphlet form and distributed agreeably to the requirements of the sixteenth section of the act. Copies of these documents are herewith submitted

The Managers proceeded to organize the official staff of the Asylum, and appointed the following officers, " the salaries of whom were fixed, by and with the consent of the Governor," in accordance with section six of the organic act: Superintendent, Horace A. Buttolph, M. D., LL. D.; Assistant Physician, Edward E. Smith, M. D.; Second

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Assistant Physician, A. K. MacDonald, M. D.; Steward, M. B. Monroe; Matron, Miss Mary Tabor, who, together with a proper number of attendants, nurses, &c., have entered on their duties.

The Managers having been notified by the commissioners, that the institution would be ready for the reception of patients on and after the fifteenth day of August last; arrangements were made for the removal of patients from the "New Jersey State Lunatic Asylum " to this institution.

This removal was commenced on the seventeenth day of August, and completed on the twenty-fifth day of the same month, under the supervision of a committee of the Managers and the Assistant Physicians, and attendants of this Asylum.. During this time, two hundred and ninety-two (292) patients were removed without the slightest accident, escape or other difficulty.

In making and carrying out these arrangements, the Managers were ably and efficiently assisted by Dr. Ward, the Superintendent, and Drs. Kirby and Britton, Assistant Physicians of the "New Jersey State Lunatic Asylum," to whom, as well as to the officials of the Belvidere Division of the Pennsylvania Railroad and the Morris and Essex Division of the Delaware, Lackawanna and Western Rail-road, for the facilities afforded in making the removal, the Managers feel indebted, and gladly avail themselves of this opportunity to express their obligations for the same.

As soon as the Asylum was ready for the admission of patients, in compliance with the sixteenth section of the organic act, notices were inserted in newspapers published in, and also sent to the clerk of, every county from which lunatics are entitled to be admitted under the rules and regulations governing the same, accompanied by a sufficient number of copies of such notices, together with a circular from the Superintendent for transmission by such clerks to each overseer of the poor. Since the publication of these notices, fifty-four (54) patients have been received into the Asylum. The places from whence they came and other particulars relative thereto are detailed in the report of the Superintendent, herewith submitted. From the above it will be seen, that, from the date of opening the Asylum for the admission of patients on the seventeenth of August, until the close of the fiscal year, on the thirty-first day of October, 1876, a period of two and a half months, there were received the large number of three hundred and forty-six (346) patients, nearly all of whom were of the most unfavorable class for recovery or substantial amendment, on account of the chronic and confirmed character of their disease ; while many of them were of the most difficult and dangerous classes to manage successfully and safely in a new institution.

For the general working of the various parts of the Asylum and its appendages and other interesting information relative thereto, reference is directed to the report of the Superintendent and the appendix annexed hereto.

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In compliance with the fifteenth section of the organic act, the Managers, on the nineteenth day of October, appointed Hon. Alfred M. Treadwell, of Madison, and Hon. William H. Howell, of Hanover, appraisers, who with the Steward "made out a true and perfect inventory, verified by oath, of all the personal property belonging to the Asylum in and about the premises, with an appraisal thereof, made under oath" by the Steward and the appraisers. The amount of said personal property is seventy-three thousand three hundred and nineteen dollars and ninety-four cents ($73,319.94).

In consequence of the late period of the year before the building was prepared to receive patients, the Treasures of the Asylum was unable to make out and collect bills against the several counties for the support of patients before the close of the fiscal year, and there-fore makes no report at this time.

For a full description of the building and grounds, the progress made in fencing and grading, the large amount of the latter yet to done, the improvement of the lawns, grounds, &c., with trees, shrubbery, &c., &c., you are respectfully referred to the reports of the Commissioners; the Superintendent of the Asylum, and the appendix hereto annexed.

Visits have been made by one or more of the Managers to the Asylum as often as once in each week, and an effective inspection of all its parts maintained. The Managers here bear testimony to the faithful and humane manner in which the various attendants have performed their duties, and the perfect order and cleanliness in which the various wards, dormitories and other apartments are kept. The Managers have observed and are gratified with the evident improvement in the condition of the patients.

This Asylum is now available for the admission, treatment and care of five hundred (500) patients, in addition to those now within its walls. And it remains for the authorities of the several counties (where, from information received by the Managers, there are a large number of insane persons) to avail themselves of the provisions so liberally made by the State for the better accommodation of these unfortunate people.

From the observations of the Managers of the practical working of the institution for the brief period since it was opened for the admission of patients, they feel justified in expressing the opinion, that it will in future fully meet the reasonable expectations of its friends in the attainment of good and useful results; and that it will ever remain as a monument to the enlightened liberality of the age and the State that gave it existence.

To the Superintendent, for his untiring exertions for the success of the work committed to his care, to the Assistant Physicians, the Steward and Matron, for the efficient manner in which they have performed the duties assigned them, the Managers desire to express

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their satisfaction and approval. The successful working of the Asylum during the short time it has been in use is largely due to these able and accomplished officials.

All of which is respectfully submitted.

FRANCIS S. LATHROP,
BEACH VANDERPOOL,
SAMUEL LILLY,
ANTHONY RECKLESS,
GEORGE A. HALSEY, WILLIAM G. LATHROP, JOHN S. READ,
Managers.

Dated, " State Asylum for the Insane at Morristown, N. J.," October 31st, 1876.

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FIRST ANNUAL REPORT OF THE SUPERINTENDENT OF THE STATE ASYLUM FOR THE INSANE, FROM THE OPENING OF THE INSTITUTION, AUGUST 17, TO CLOSE OF YEAR, OCTOBER 31, 1876. TO THE MANAGERS OF THE ASYLUM.

GENTLEMEN:-In compliance with the law for organizing this Asylum the Superintendent submits to your board, his

FIRST ANNUAL REPORT.

The Asylum was opened for the admission of patients on the 17th of August, 1876. From that date until the 31st of October, inclusive, the close of the fisoal and statistical year, there have been admitted three hundred and forty-six patients.

	Men	Women.	Total.
Received To Nov. let, 1876	161	185	346
Discharged recovered	1	1	2
Discharged improved		1	1
Died	1		1
	2	2	4
Remaining Oct. 31st, 1876	159	183	342

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DURATION OF DISEASE.

VI.

	Ma	Female	
Less than 1. year.	10	19	29
More than 1 year	10	14	24
2 years	23	16	39
	15"	8	23
4	10	9	19
	14	19	**33**
6 "	11	7	18
7	12	7	19
8 "	10	7	17
9	6	7	13
10 "	2	11	13
11 "	5	6	11
12 "	6	6	12
13 "	3	3	6
14 "	1	4	5
15 "	2	7	9
16 "	5	3	8
17 "	**4**	2	6
18 "	1		1
19 "	1	3	4
20 "	3	2	5
21 "	1	2	3
22	1	3	4
23	1	2	3
24	1		1
27	1		1
28		1	1
30	1	1	2
31		1	1
33		1	1
34		1	1
35	1		1
36		1	1
Unknown		12	12
	161	185	**346**

In explanation of the fact that so many were received in so short a period, about two and a half months, it may be stated that of the whole number, three hundred and forty-six, two hundred and ninety-two were received directly from the State Lunatic Asylum, near Trenton, within the period of eight days. They were brought from one institution to the very door of the other, under an arrangement made by Judges Lilly and Lathrop of the Board of Managers, with the Belvidere and Delaware and Delaware, Lackawana and Western Railroads, without delay or accident of any kind. The direct super-vision of the removal of patients was assigned to Drs. Smith and MacDonald of the medical staff, assisted by attendants, male and female, sent to receive and accompany them on the way. It may be added, also, that the ease and success of the removal was much favored by the co-operation and aid of the Superintendent and other officers of the institution from which they came.

A very large proportion of the cases, as will be seen by table number six, showing the duration of the disease, had been insane for

many years, a circumstance sure to influence unfavorably, not only the statistics of recoveries but also to add largely to the mortality within the institution during the next few years. One death occurred from consumption, the patient having been deranged continuously for seventeen years.

FORMS FOR THE ADMISSION OF PATIENTS.

PRIVATE PATIENTS.

For the admission of this class, three forms are used-a certificate of insanity by a regular physician, a written request from some friend and a bond for support, removal, &c., signed by two responsible persons.

POOR AND INDIGENT PATIENTS.

For the admission of poor or pauper patients, application should be made by the overseer of the poor of the township or ward of the *city* where they reside, to a judge of the Court of Common Pleas, and for one of the indigent class (a person of some but small means) by a friend to the same officer. If satisfied on inquiry that the person for whom application is made is insane and that tie is entitled, under the law for such cases (section twentieth and twenty-first of the act to organize the Asylum), to receive support at the county's expense in the Asylum, the judge issues an order to that effect. This order is to be signed, approved by the Chosen Freeholder or Freeholders of the township or ward of the city of his residence, and then deposited in the office of the County Clerk who files the same as notice to county authorities that an expense has been incurred.

The clerk sends a copy of order, duly authenticated by his signature and official seal, to the Superintendent of the Asylum, with the patient, as a voucher for his admission and support at the county expense.

Copies of all these "forms " are given in the appendix to this report, and printed blanks for use will be furnished on application to the Superintendent of the Asylum.

NOTICE TO PATIENTS OF THE PURPOSE OF FRIENDS.

Insane persons should generally be informed of the decision of friends to place them in the institution before leaving home for that purpose. Should this, however, be omitted from motives of expediency of any kind, it is important for the welfare of patients and for

the success of their treatment after admission, that great care be taken that no false or exaggerated statements be made to them in regard to the nature and objects of the institution or the ability of the medical officers to give them certain and speedy relief.

When persons find in this preliminary stage of the proceedings that they have been treated with frankness and truth by their family and friends, it is not difficult for the officers and employees of the Asylum to secure and maintain their confidence, which is always an import-ant element of success in treatment.

TREATMENT OF PATIENTS AFTER REACHING THE ASYLUM.

Having arrived at the institution, its name and objects are distinctly stated and the purpose of friends in placing them in its care explained if they are in condition to receive it.

After the separation from friends at the institution, they are left in charge of the supervisor of a department who gives them, in a kindly manner, such information of the mode of life in the Asylum as will enable them to conform, as far as they are able, to the rules and regulations, spending as much time with them as is necessary to attain this object. They are then introduced to the hall or ward where they are to remain, and to the attendants who are to have them under special charge. Exceptions to this mode will of course occur from the inability of patients to appreciate the information usually given, or when too much excited and deranged to receive it with composure and kindly feeling.

After removing patients from the presence of friends the latter are expected to give to the physician, as far as possible, a connected account of the cause or causes of the attack ; the rise, progress and peculiarities of the mental disorder up to the time of their admission to the Asylum ; together with the medical and other treatment previously adopted. This being done and an agreement made as to the person with whom correspondence is to be held about the patient, the friends leave the Asylum with the assurance that the patient will be carefully and well treated. That all letters of enquiry about them from the proposed correspondent will be promptly answered, and farther, that they will receive notice without writing, of all changes deemed by the physicians as specially important.

When the friends accept these assurances and statements and act upon them in good faith, having confidence in the institution and its officers, they will endeavor to overcome and lay aside all undue or morbid anxiety about the proceeding and its results and confidently hope that the arrangement made is the best that is possible, to secure the recovery of the patient, if curable, or his welfare and comfort if otherwise.

At an early date after admission a careful examination is made by the physicians of the bodily health of the patient, also of the char-

acter of his mental disorder, and the facts obtained are compared with the history received from friends.

If urgent symptoms, calling for immediate treatment, are discovered, medicine is prescribed at once, but if otherwise, time is taken to observe the patient more fully and a decision made of the required treatment at a later period.

INCREASED PROVISION FOR THE INSANE.

The provision here made for the care and cure of the insane is most ample in extent and excellent *in* character, and is fitting evidence of the humanity and liberality of the State towards its insane citizens, who are, in an especial sense from their helpless condition, its own proper wards.

The building will easily accommodate eight hundred patients, with the necessary officers and attendants, and is arranged architecturally to admit of the most thorough classification of the inmates.

The facilities of such an establishment when well organized and in working condition are *immeasurably* superior to any that can be supplied by friends or by city or county authorities, and therefore should be availed of in behalf of all those who, through the loss of reason, are entitled to its benefits.

COST OF SUPPORTING INSANE PATIENTS.

In estimating the advantages and cost of a State system for the care and treatment of the insane, we bring into view not only the extensive and perfect architectural arrangements made available for the purpose and provided without charge, for the use of individuals, but the current cost for the support of all classes of insane, which is, through its agency, so much lessened that there can be no question as to the expediency on the part of friends and local authorities of adopting and using it, to the full extent that it is offered.

It should be understood, however, by all parties who have occasion to provide for the support of patients in the institution, that a liberal system, avoiding alike extravagance and waste. is not only more humane because more comfortable, but is even the most economical, because more likely to result in the recovery of reason, thereby ensuring against the necessity for a life long support.

At this point arises the practical question, of interest to all parties, as to what is the correct principle or standard for keeping insane people of all classes. To this enquiry I would answer, that within reasonable limits they should be supplied with any and all agencies and means best calculated to secure their recovery to reason, if curable, and their welfare and comfort, if otherwise. This principle or standard is the only one that comports with the enlightened liberality

of the State in furnishing the building, and that is consistent with the claims of the insane for the best treatment, as based upon it.

To the officers concerned in the organization and working of the institution, and particularly to the medical officers, should be assigned the duty of devising and carrying out in detail the system that, judging from experience, is best adapted to secure with the greatest certainty the objects intended.

PAUPER AND INDIGENT PATIENTS.

The law authorizing the support of pauper and indigent patients in the Asylums of this State, by the several counties, maybe found in sections twenty and twenty-one of the acts for organizing these institutions.

In regard to the latter or indigent class, and provided for in section twenty-one, it may be remarked that it is most humane in its purpose and provisions. It provides, to quote the language of the act, that "when a person in indigent circumstances, not a pauper, becomes insane, application may be made in his behalf to any Judge of the Court of Common Pleas of the county where he resides, whose duty it shall be to Investigate the facts of the insanity and indigence; and if the said judge make a certificate that satisfactory proof has been adduced showing him to be insane and his estate insufficient to sup-port him and his family, (or if lie has no family, himself), under the visitation of insanity, on such certificate duly authenticated as the law provides, he shall be admitted into said Asylum and supported there at the expense of said county, until he shall be restored to soundness of mind, if effected within three years."

It should perhaps be stated that under the operation of this law, more than nine-tenths of those supported at the public charge, are sent to the institution as indigent, and are received, and should be treated as such, and not as paupers in the usual sense. In the meaning of the law, they are persons of small or moderate means, but they represent nearly all grades in society, as laborers, mechanics, farmers, merchants and professional men. They are, however, persons who have never claimed or received assistance in their support from the public. Indeed, many of them belong to families that have been reduced by misfortune from a state of competency, or even affluence, and the best social positions; hence, if it be proposed to substitute a lower or less perfect system of means in their treatment than was contemplated by the State in erecting its buildings, the humane policy of the law is thwarted and the best attainable results in their behalf cannot be secured. Such persons when admitted to the Asylum should be treated with the utmost kindness and consideration, that their self-respect may be preserved and their hopes encouraged to the greatest extent. Indeed, on no other principle

than this can they be rendered comfortable and their recovery the most certainly assured.

To enable all to judge somewhat in regard to the necessary cost of supporting the inmates of an institution where the primary principles of correct management are kept in view, the following enumeration is made of the leading things that should be considered as useful and necessary :

Buildings for the care of the insane, as a matter of both health and comfort, should be thoroughly warmed in cold and cool weather and ventilated at all seasons and hours of day and night. This of course involves a liberal, indeed, a large amount of fuel, as no building with an efficient system of ventilation can be well warmed without it. Such buildings should be well lighted with gas to render the rooms and extended corridors cheerful. They should be freely supplied with water, hot and cold, for frequent bathing of the inmates, and for all other purposes. They should also be kept constantly in a state of good repair, the fixtures, machinery and furniture should be repaired and renewed as often as demanded by constant use.

The number of nurses or attendants should be sufficient for all usual or special purposes. The supply of medicine should correspond fully to the wants of individual cases. The food should be abundant in quantity, nutritious and well prepared and served. Clothes and bed-clothes should be regularly washed and kept in good repair ; employment and amusements of various kinds, including arrangements for daily exercise in the open air in walking and riding, according to season and the circumstances of individual oases. The supply of proper apparel, or such as to meet the necessities and preserve the self-respect of individuals, which includes both the quality of the fabrics of which the articles are made and the manner in which they are fitted. All these and many other details of management and supplies become important in the medical, mental or moral treatment of individual cases, and should receive such attention from the medical officers as their relative importance demand. When it is considered that the cost of supporting the indigent in the various State institutions of the country is quite similar in amount, and the rate of weekly charge, including the various items of expense named, seldom exceeds the cost of board at respectable boarding houses in the country for sane people, (who of course require and receive much less personal attention than insane boarders). The amount received at the two institutions of this State, $3.50 from the counties and $1 from the State, making $4.50 per week from both sources, the sum will appear moderate or certainly not excessive.

To establish a lower rate would necessitate a reduction in the number and character of the attendants employed, the quality of the food furnished, and in other important respects would so impair the standard of the institution as to make it in its management and

results unworthy of the State that has shown such conspicuous liberality in its erection and progress thus far.

For the support of private or paying patients the arrangement and terms will be fixed with friends, and as far as possible adapted to the requirements for treatment and their pecuniary circumstances, when there are reasons for making the latter, as frequently occurs, a subject of special consideration.

It would be alike inexpedient and unjust, however, to the indigent insane and to the institution to have the standard and cost of keeping so reduced as to compare unfavorably with kindred institutions in other States, and as to render it necessary, by reason of such reduction in behalf of this class, to unduly advance the rate of charges for the support of private cases.

CAUSES OF INSANITY OR MENTAL DERANGEMENT.

Much attention has been given to the subject of the causes of insanity, in regard to which there is often great uncertainty, particularly in reference to those usually designated as mental and moral. Of the local or physical causes, much more definite information is attainable, because these are more obvious to the senses, and more distinctly prominent in their effects.

PREDISPOSING CAUSES OF INSANITY.

The first and perhaps the most frequent predisposing cause of disease in the brain, on which insanity is always based, is a hereditary constitutional defect, by which it is rendered more susceptible to the effect of disturbing influences. This susceptibility is also usually greater when the tendency to disease is inherited from both parents, and in families in which intermarriages have been frequent, the standard of physical vigor being rendered thereby much lower. It is not supposed in these cases that insanity is directly transmitted from parent to offspring, or that it will inevitably appear in the latter, in the most favorable circumstances for health. It is presumed, only, that on account of a peculiar quality of brain, or unfavorable combination in the strength of its parts, they are rendered more liable to attacks of cerebral disease, and hence become insane.

Another, and not infrequent predisposing cause of disease, is the susceptible or irritable state of the brain and nervous system that remains after some of the diseases of infancy or early childhood, that have appeared in a severe form. Neglect of, or imperfect physical training of young persons, by which the general tone of the nervous system has been impaired, too great an indulgence of the appetite in the use of stimulating or irritating articles of food or drink. Early and great efforts at developing the mental powers of precocious children, as well as the excessive gratification of their capricious feelings.

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Injuries of the bead from blows, falls, &c., *in* childhood and afterlife, *even* although they *may* be slight, are sometimes followed by an increased liability to disease. Finally, any cause, physical, mental, or moral, that in its effects materially impairs the tone and vigor of the brain and nervous system in general, may operate as a predisposing cause of disease of this organ, and to mental derangement.

In the list of predisposing causes none perhaps is more frequently injurious or fatally destructive to the native organ of the whole system, including the brain, than the precocious development and excessive indulgence of certain animal feelings, to which too many misguided youths are addicted, the tendency being in most instances, to a depraved, feeble state of the bodily health, and great mental lassitude and imbecility, rather than to active derangement.

It may be pertinent in this connection to state, also, that among the list of causes leading to the abuse of these feelings, is the reading of works of fiction, in some of which the attention and imagination of the young are so fixed and stimulated, that they become an easy prey to habits alike destructive to physical and mental strength, and to the loss of reason itself.

EXCITING CAUSES OF INSANITY.

Dr. A, Combo, an eminent author on this subject, remarks that " Whatever disturbs the healthy action of the brain, may become an exciting cause of insanity, and of nervous disease. External violence, the application of intense cold, exposure to solar heat, irritation in a distant organ of the body, severe and unremitting study, mental affections, grief, fear, anxiety, inordinate ambition, and, in short, any feeling or faculty of the mind, roused to an inordinate degree, are all occasional causes of insanity, and of cerebral disease, because all of them tend to disturb the healthy action of the brain. But it must be observed that the same causes sometimes do not occasion any disorder in the manifestations of the mind, either of an acute kind with delirium, or of a chronic nature with, insanity. This difference of result depends on the peculiar constitution to which the existing cause is applied. If a hereditary predisposition to insanity exists, then the consequence will most likely be an attack of mania; if there be no predisposition and the patient be young and vigorous, and the cause sudden and violent, then acute disease and delirium will most probably follow ; and, lastly, if the individual be arrived at maturity and otherwise in good health, and be favorably situated in respect to resources, the effect *may* simply be a paroxysm of mental distress, which will subside before it go to the length of disease. To all these instances, however, the tendency and action of the cause, is to derange the health of the brain ; and the manifestations of the mind never become morbid, unless the health of the brain be previously overset."

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In estimating the deleterious consequences likely to ensue to the brain and the healthy balance of the mental faculties from the application of most of these causes, reference should be had as much to the peculiar physical and mental constitution of the individual as to the intrinsic nature of the cause itself or its usual mode of action.

This brings us to the consideration of the second or functional class of causes inducing disease of the brain, and which are of the greatest importance both in a philosophical and practical point of view. The same intelligent author before quoted, says, in speaking of this subject : " To understand the manner in which the functional class of causes act, we must keep in mind the two-fold function of the brain, and regard it not only as the seat of thought and feeling, but as the center of sensation and nervous energy. This is necessary, because a distinct set of causes is related to each of these divisions. As the center of sensation, the brain is constantly stimulated and acted upon, by whatever is passing in every part of the body. If a breath of wind strikes upon the face, it is the brain that feels it; or if a straw falls across the foot, it is again the brain that apprises us of the fact. In the healthy state, the intimations sent to the brain of the condition of other organs, as the stomach, the intestines, or the muscles, are scarcely attended with consciousness, because if they were acutely felt, our attention would be entirely and needlessly taken up by them. But if from disease, an altered action be set up in any part, that moment a disagreeable sensation is transmitted to the brain, compelling us to attend to it. Even a whitlow on the point of the finger is often so excruciatingly painful as to throw the brain into a state of excitement incompatible with sleep, thinking, or sound feeling, and sometimes into positive delirium. In like manner in inflammation of a large joint, the sensation transmitted to and perceived by the brain, will often over-stimulate the latter to such a degree as to induce violent delirium, which will immediately cease on removing the remote irritation. The brain being thus powerfully acted upon in the more external and unimportant parts of the body, is naturally still more influenced by sources of irritation occurring in internal organs." In speaking further of this subject, and in explanation of the fact, why disease of the internal organs often exists for years, without causing disturbance of the brain or mind, Dr. C. remarks, in substance, that the latter is more likely to occur when the nervous plexuses and tissue of internal organs are the parts more especially involved.

The next, and by far the most influential class of functional causes of disease in the brain, are those that have reference to it as the agent or seat of thought and feeling. This class has usually been termed moral, in keeping with the idea formerly entertained, but now quite obsolete, that they had reference to disease of the mind itself, which can never occur. The former term of functional causes has reference to diseased action of the brain as the organ of mind,

and is therefore more truly expressive of the seat and nature of the malady. The natural or healthy functional action of a region or part of the system, is that which its constitutional endowments of strength and activity enables it to endure without fatigue, exhaustion, or other material injury. If carried beyond this point, it becomes a cause of disease, which, of course, is augmented in proportion as it transcends the limits of healthy endurance in a given subject. Physiologically, this is easily understood. During the state of healthy functional action of a part, its vessels and nerves become active to the extent required for the purpose, and which they are constituted to bear without injury. Suppose, however, as constantly happens to individuals, that the part is exercised beyond its healthy limit, the consequence is that its nerves and blood vessels are over-wrought and a sense of fatigue and even pain is experienced. If the exertion is carried still farther, the blood vessels become distended and engorged, and the person is finally compelled, by the suffering of the part, to desist from further exertion. Gradually, under the influence of repose, all the distressing sensations disappear and the healthy state returns. Again the exercise is resumed, increased and continued to a point still beyond the former error, but again the part is apparently restored by rest. Finally, however, after many repetitions of the offence, the capability of the organ for healthy reaction is lost and settled irritation or disease of the brain and disorder of the mind is established. In this connection it should be fully understood that rest by sleep is the recuperating agency by or through which an attack of derangement is prevented or delayed for considerable periods. Whenever, therefore, through the disturbing influence of mental or moral causes the ability of the individual to take rest in this way is greatly impaired or lost, it should be regarded as a symptom of gravest importance. He should, if possible, instantly restrain the current of his thoughts or have them diverted to other and less disturbing channels. If, perchance, he has already lost the mastery of his mind in this particular, resort should then be had to remedial means, which may yet prevent an attack, by compelling rest, but, if unsuccessful, may moderate the intensity of the forming stage and shorten its duration. Back of the consideration of mental and moral causes, however, which may be in a given case, very important or extremely trivial in their character and influence, it should be known and admitted, in order to a right understanding of the subject and the expression of enlightened -views in regard to insanity, that the brain is not only, in a general way, the organ of the mind, or the agent by or through which its faculties are manifested in this life, but that its regions and parts are related, through their functions, to classes and individual faculties of the mind, and that all attempts, while denying or ignoring this cardinal fact or relation between the two, to profit greatly by pathological inquiries into the condition of the brain, will be largely disappointing, or even futile and worthless,

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as it regards an improved or better adapted system of medical, mental and moral treatment of the disease.

ACKNOWLEDGMENTS.

The religious services of our chapel on Sunday have been conducted by the clergymen of Morristown and the vicinity, to whom we would return grateful acknowledgements.

We are under great obligations to Messrs. Chickering & Sons, of New York, for the donation of a Concert and Grand Piano of their most approved make.

From John S. Pierson, Esq., of New York, we have received over one hundred volumes of useful reading matter for patients' library, and seventy-six large colored lithographic prints for embellishing the wards, for which we return our warmest thanks.

From Mrs. F. S. Lathrop, of Madison, we have received a large number of miscellaneous books, pamphlets, and papers, for the use of the patients.

From Mrs. Revere, of Morristown, a large contribution of reading matter including the numbers of seventeen volumes of "Littell's Living Age."

From the citizens of Morristown a large supply of periodicals and papers for daily reading for the patients, kindly collected at the post office and forwarded by Dr. J. S. Dodge.

We are indebted to the "Morris Republican" and the "Jersey-man," for gratuitous copies of their papers.

From the green house and grounds of Judge Lathrop have been received a very large collection of cut flowers, as well as a great number of plants in pots, including many valuable rose bushes for embellishing the halls and grounds.

From Mrs. and Miss Duryea, of Newark, two large and well filled hanging baskets of flowering plants.

From Miss D. L. Dix, a kaleidoscope and one hundred and fifty lithographic prints for the use of the patients and the embellishment of their wards and rooms. For contribution of bibles, including large pulpit bible for the chapel, we are indebted to the Morris County Bible Society, through the Hon. John Hill, of Boonton.

From various other parties we have also received contributions of books, pamphlets and illustrated papers for the use of patients.

Our household was greatly entertained by an instrumental and vocal concert by a musical company from Morristown, under the direction of Prof. Fussell of that place.

We were also much gratified by an evening serenade by the Boon-ton Brass Band, led by Mr. George Hessey.

To the Board of Managers I beg to express my sense of obligation for their considerate kindness and courtesy to myself and family, as

well as for their enlightened liberality and most efficient aid in con-ducting the affairs of the institution thus far.

From the resident officers I have received cordial sympathy and support, and by the attendants and assistants have been manifested an earnest desire and effort to do right and well in their several places of responsibility and trust.

Respectfully submitted,
H. A. BUTTOLPH.

STATE ASYLUM FOR THE INSANE, MORRISTOWN, Nov. 1st, 1876

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APPENDIX A

TO THE MANAGERS' REPORT, CONTAINING A BRIEF DESCRIPTION OF THE BUILDING, FIXTURES, &C.

As the building is of its kind one of the most recently finished and occupied in this country, the present is deemed a suitable occasion to allude to its form, size, arrangements, fixtures, facilities for the care care of patients, &c.

Information in regard to many of the details can, however, be more satisfactorily obtained from the reference table, appended to the ground and other plans presented in the report.

The building is constructed of gneiss, quarried on the premises, of a light gray color, very hard, and resembling granite in solidity and texture. The walls are all laid on deep foundations of concrete, formed of coarse gravel and cement, and the outer walls are laid in broken range-work above the ground level.

Great pains was taken in this part of the work to prevent any yielding of the walls. The structure is formed to so large an extent of incombustible material, that it is practically fire-proof in nearly all its parts. This result is obtained by the use of stone and brick **in** the walls ; of iron beams; filled between with brick arches; of slate roofing constructed almost entirely with ridges, hips, valleys, gutters and conductors of copper, and with cornices of stone, and by constructing the stairs of slate.

Considering the great size *of* the building, the durable character *of* the material *of* which it is composed, and the careful workman-ship on the walls and interior finish, it may be truly said that it has scarcely an equal, oertainly no superior in these respects, in the world.

To attain so great excellence in results, the Commissioners and the Architect have carefully followed the progress *of* the work from the beginning *of* the enterprise to the present time.

The central edifice is trimmed with Pictou or Nova Scotia stone, and the wings with free stone from the Newark quarries, the whole presenting a very substantial and imposing appearance.

The inner or lining walls, as well as the division and corridor walls, are of brick, throughout the entire building. The center building consists of a front and rear division, united by a connecting corridor, an arrangement intended to secure light and air at points from which both would be excluded in a continuous line or block of buildings.

The plan shows that the third story of the rear center is used as an amusement room and chapel. The former of these, fifty-nine by forty-seven feet, and twenty-four feet high, is well lighted, and is to be fitted up with stage and scenery for tableaux and minor theatrical representations on one side, and with arrangements for showing magic lantern views on the other. The spectators are furnished with seats with reversible backs.

The chapel is seventy-one by thirty-seven feet, and thirty-six feet high, and is lighted by stained glass windows. The arched wood ceiling is embellished with stencil work, and the sides, front end (a plain surface) and rear end (an arched recess) are tastefully frescoed.

Both of these rooms are exceedingly valuable for the purposes for which they are intended, and are now in frequent use.

The principal kitchen is situated in the basement story of the rear center building, beneath the amusement room. It is eighteen by forty-seven feet in extent and twenty-two feet high ; the second story being thrown in at the top with its tier of windows to insure an abundant supply of light and air.

The room is furnished with a large three-oven range, broiler and cake baker, and also in a recess at one end with four large iron jacketed steam kettles, which may be used for stewing meats, making soup, cooking vegetables, &c. These fixtures, together with two sets of large, copper coffee and tea boilers, an outfit of tea service, boxes for food, tin cans for distributing coffee and tea, and a variety of cooking utensils, are all of the most approved pattern and best finish.

The same room is also supplied with eight cast iron steam ovens made double throughout, except a small door with extra copper cover on the top in front.

These ovens are used for roasting joints of meat, poultry (about twenty-five pounds each), and may be employed for broiling beef steaks or other meats. Meats are cooked in these ovens in a highly satisfactory manner, with scarcely any waste, inasmuch as steam heat neither burns nor dries them unduly, leaving them very tender and juicy. The surface is also so well carbonized or browned, as to leave nothing to desire in this respect. Other steam fixtures have been provided to cook certain vegetables, such as potatoes, in a dry or baking heat.

The rooms, one on either side and near the kitchen, have been selected for use as auxiliary kitchens, in which tea and coffee are made, and the vegetables mainly prepared and cooked.

This arrangement of cooking fixtures and partial separation of cooks, serves to prevent the overcrowded condition of the main or

meat kitchen, and simplifies and facilitates the preparation and distribution of food, a point of much importance in a large institution.

In addition to the foregoing, there is, in immediate proximity to the main kitchen, a smaller one, fitted with a family range, to be used when required for the preparation of special or prescribed diet for the sick, and still another, in the first story of the front center building, used for the officers and their families.

There are on both sides of the center building, and united to it by connecting corridors, four principal sections or wings of the building, with four stories, for the use of patients. These wings are united by connecting returns of the same height, and terminated, at either extremity of the building, by wings at right angles with the fourth, arranged with rooms on one side of the corridor only, and two stories high. The latter form, with the fourth wings, hollow squares, and are used for the accommodation of the most excited and irregular patients of both sexes.

The open courts within the squares command cheerful views of scenery, are supplied with seats and shaded walks, and are properly considered as the most attractive of the enclosed grounds.

The air chambers beneath the wings occupy the space between the corridor walls at their base. In these are principally placed the cast iron radiators for warming the building; and to them the air is supplied by two fans through passages under ground. One of these passages terminates at the intersection of the first and second, and the other at that of the third and fourth wings on either side, while the center building, front and rear, receives air from the same fans through cross trunk leading to the main passage in that direction.

The warm air is conveyed from the air chambers through flues in the corridor walls, and escapes through registers placed near the floor in the corridors and rooms above. The heating surfaces consist of cast iron radiators, suspended from the iron beams above, and are enclosed by hoods of sheet iron, with divisions by tin plates between those assigned to the warming of different stories. The heating surfaces are so large as to secure the desired object by using steam at low pressure.

The ventilation of the building is effected through flues in the outer walls, opening from rooms near the floor, and passing downward to horizontal foul-air trunks or passages, situated at the base of these walls. These trunks discharge the foul air into the upright brick shafts, around which the flights of stairs are built, and which finally terminate as open chimneys, above the roof, the tops being covered with sheet iron caps to exclude the rain and snow, and to prevent a back or downward action of the air arising from eddying winds. Finally, to secure and maintain a reliable and steady upward motion of the foul air through these passages, two double cone coils of steam pipe are placed in each, one near the bottom, and the other near the top. When these are heated, they produce a regular exhaust force

for withdrawing the foul air from the building, and are made to operate in all of the rooms and at all points of the building where warmth and ventilation are required. As two of these heated shafts in each section or wing of the building are kept constantly in operation, day and night, there is little chance at any point for the accumulation of bad air from stagnation.

The arrangement of ventilating flues in the outer walls of the building has the additional advantage of warming and drying them in cold and wet weather, by the constant circulation through them of warm, dry air from the interior. As the upright shafts are made fire-proof, there is no danger that fire will be communicated from them to other parts of the building, as may be the case in any form of ridge ventilation.

The ventilation of closet-hoppers, of which there are about one hundred for clay, and fifty for night use, is effected by the exhaust force of the stack, operating through the main sewers and the several waste pipes with which the closets are connected.

The apartments, passages, fixtures, &c., common to the various wings and wards, are as follows : Two flights of stairs in each wing constructed of slate, situated on the front and rear near each end of the wings, as shown in the plan ; a corridor twelve feet wide, in the center of which, on the front side, is a large recess or alcove ; a sitting room or parlor; the various bed rooms for patients and attendants; a dining room with china closets, dumb waiter and steam table for keeping food warm ; an exercise room or gallery ; and a general lavatory or wash room, fitted with marble slab and three basins each. Enclosed within the lavatory by partitions of wood work, are two closets with enameled iron hoppers, a sink at which to draw cold and hot water, and a stand pipe for attaching hose. There is also in each hall a clothes room and bath room, a soiled clothes passage leading to a basement room, and a dumb waiter for returning ironed clothes from the laundry to the several halls.

The wings are made fire-proof to a great extent by the use of iron beams with brick arches between them, which arrangement also proves an effective deafener between the stories.

The building furnishes arrangements for sixteen full and twenty partial subdivisions, and for eighteen dining rooms for each sex. In addition to these facilities, there are three small special wards in each of the three stories of the first wing for both sexes. These will furnish excellent accommodations for one or two patients each, with parlor and bedroom, dining room with dumb waiter, bath room, &c., and room for attendants in charge.

The block of buildings in the rear of the centre edifice, as shown in the plan, consists of a boiler house with eight boilers fitted and arranged in the most substantial manner. The engines, of which there are two, with cylinders eighteen by forty-two inches, and placed in rooms on each side of the boiler room, are intended to be a complete

duplicate of the power required for driving fans and machinery in the machine-shop, laundry and bakery.

The exhaust steam from the engines is used for heating water for bathing and all other purposes connected with the institution, including the use thereof in the laundry. Beyond the engine room on the North side is the carpenters-hop and machine-shops, for iron and wood work, and a large room for various other purposes on the third story.

The laundry building, which includes the fixtures and machinery for the washing, drying and ironing departments, with arrangements for assorting and distributing clothes, is situated at the corresponding point on the south side of the boiler house.

The laundry is supplied with four " Nonpareil " washing machines of the largest size, and with centrifugal and starch wringers ; all of which have thus far proved very excellent.

The drying closet is in the wash room, and is heated by steam pipes near the floor. The clothes to be dried are placed on horses moved on rollers out and in the closet. The drying is done rapidly and in a very satisfactory manner.

The section of building on the front part of the block and shown on the plan is the bakery. This is furnished with a reel oven and the usual fixtures and machinery for making aerated bread.

These several departments contain fixtures and machinery of the greatest practical importance to the easy and perfect working of a large establishment, and have thus far proved in the highest degree successful. The house is lighted throughout by gas, made from coal, in works on the premises.

The work of making walks, enclosing and grading exercise grounds in the rear of wings on either side, thus fitting them for the use of the inmates next year, is progressing, and will be finished before the close of the season.

The house is supplied with water in every part, by gravity from reservoirs fed by springs in the high grounds above, with a capacity of about seven hundred thousand (700,000) gallons.

The work of forming an ice pond of about two acres in extent is now progressing. Also of building an ice house on its border, in which to store about fifteen hundred (1,500) tons of ice.

Buildings required for keeping stock, for slaughtering animals and preserving meats, are being rearranged, and will be brought into use at an early day.

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tion ; and also to provide with suitable clothing, and pay for all such necessary articles of clothing as shall be procured for by the Steward of the Asylum ; and to remove from the Asylum whenever the room occupied by shall be required for a class of patients having preference by law, or whenever shall be required to be removed by the Managers or Superintendent; and also to pay all expenses incurred by the Managers or Superintendent in sending said patient to friends, in case one or either of us shall fail to remove said patient when required to do as aforesaid; and if shall be removed, at the request of friends, before the expiration of six calendar months after reception, then to pay board for twenty-six weeks, unless shall be sooner cured, and also to pay, not exceeding fifty dollars, for all damages he may do to the furniture or other property of said Asylum, and for reason-able charges in case of elopement, and funeral charges in case of death ; such payments for board and clothing to be made quarterly in advance from date of admission, and at the time of removal, with interest on each bill from and after it becomes due.

In witness whereof, we have hereunto set our names this day of in the year 18

Name. Residence. P. O. Address
Name. Residence. P. 0. Address

Signed and sealed in the presence of

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FORMS AND DIRECTIONS FOR ADMISSION, &.c., OF

INDIGENT AND PAUPER INSANE PATIENTS

FORM OF ORDER, ETC., FOR JUDGE.

I, A. B., one of the Judges of the Court of Common Pleas of the county of , and State of New Jersey, do hereby report that application has been made to me on behalf of C. D., a resident of the (township, ward or borough), of , in said county, alleged to be insane, (and in indigent circumstances, or a pauper, as the case may be), and that pursuant to the act of the Legislature in such cases made and provided, I have called before me Dr. , a respectable physician, and other credible witnesses, to wit: (state their names), and having examined them, and fully investigated the case, and not deeming it necessary to call a jury, I do hereby decide and certify that satisfactory proof has been adduced before me, showing the said C. D. to be an insane person and that has not sufficient estate or means to support under said visitation of insanity.

Given under my hand at , in the county and State aforesaid, this day of , in the year of our Lord one thousand eight hundred and

A. B.

CERTIFICATE OF PHYSICIAN.

County, ss. I, A. B., being duly sworn according to law, do certify and declare that I have examined into the state of health and mental condition of C. D., of the (township, ward, or borough) of , of said county of , and that I am of opinion that is insane.

A. B., *Physician.*

Sworn and subscribed to before me this day of , **A.** D. 18

A. B., ***Judge,*** *4c.*

The Chosen Freeholder or Freeholders of the township, ward, or borough, must then endorse the above order and certificate as follows : " Approved," and sign his or their names as the chosen Freeholder or Freeholders of the (township, ward, or borough) of
and county of

CERTIFICATE OF THE COUNTY CLERK.

STATE OF NEW JERSEY,

County, ss.

I, A. B., clerk of the county of , do hereby certify that the foregoing is a true copy of the report and certificate of one of the Judges of the Court of Common Pleas of said county, in the case of , and also the certificate of Dr. , thereunto appended, *as* filed in my office ; that the foregoing is a true copy of the endorsement thereon, and that (A. B. and C. D.,) whose name signed to the said endorsement of approval, member of the Board of Chosen Freeholders of said (township, ward, or borough), in said county, and that said signature in proper handwriting.

In witness whereof I have hereunto set my hand and seal of office at , this day of , A. D., 18 .

A. B., *Clerk.*

B.

C.

D.

1877

SECOND ANNUAL.

REPORT OF THE MANAGERS

OF THE
STATE ASYLUM FOR THE INSANE

AT MORRISTOWN, N. J.

1877

OCTOBER 31, 1877

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OFFICERS OF THE ASYLUM. MANAGERS.

FRANCIS S. LATHROP, Madison
, BEACH VANDERPOOL, Newark,
SAMUEL LILLY, M. D., Lambertville,
ANTHONY RECKLESS, Red Bank,
GEORGE A. HALSEY, Newark,
WILLIAM G. LATHROP, Boonton,
JOHN S. READ, Camden.

OFFICERS OF THE BOARD OF MANAGERS.

PRESIDENT,
FRANCIS S. LATHROP, Madison.

SECRETARY,
SAMUEL LILLY, M. D., Lambertville.

TREASURER,
EUGENE VANDERPOOL, Newark.

RESIDENT OFFICERS.

SUPERINTENDENT AND PHYSICIAN, H. A. BUTTOLPH, M. D., LL. D.

FIRST ASSISTANT PHYSICIAN,
EDWARD E. SMITH, M. D.

SECOND ASSISTANT PHYSICIAN,
THOMAS M. LLOYD, M. D.

STEWARD,
MARTIN B. MONROE.

MATRON,
MISS MARY TABOR.

1877

To His Excellency,. Joseph D. Bedle, Governor of the State of New Jersey :

The Managers of the "State Asylum for the Insane, at Morris-town, N. J.," in conformity to the tenth section of the act providing for organizing the same, respectfully submit their second annual report, as follows :

The official staff of the Asylum remains the same as at the date of the last report, except that on the tenth of July last, Dr. A. K. MacDonald, who had faithfully and efficiently performed the duties of Second Assistant Physician of the Asylum, from the date of its opening, tendered his resignation, in writing, to the Superintendent, who, on the thirty-first of August, presented the same to the Managers.

Dr. W. G. Budington, who had applied for, and was nominated and appointed to fill the vacancy, after a short period of trial. finding the duties of the place .uncongenial, requested to be relieved from the further performance of the same, and on the twenty-ninth of October, the nomination of Dr. Thomas M. Lloyd. of Salem, N. J., was made by the Superintendent, and confirmed by the Managers. He has accepted the appointment, and will enter upon his duties at once.

For the proper statistical information relative to the number, character and condition of the patients in the Asylum this year, reference is directed to the report of the Superintendent, hereto appended, to which report, and to the report of the Commissioners, you are respectfully referred for a full description of the present condition and working of the various parts of the Asylum, the grounds, &c., &c.

In compliance with the provisions of the fifteenth section of the organic act, the Managers have appointed Hon. A. M. Tredwell, of Madison, and Mr. George W. Esten, of Boonton, appraisers; who, with the Steward, have made out a true and perfect inventory, verified by oath, of all the personal property belonging to the Asylum.

The amount of said personal property is eighty-six thousand three hundred and eighty-seven dollars and eighty-four cents, ($86.387.84.)

The report of the Treasurer, herewith transmitted, exhibits the

receipts and expenditures of the institution for the whole time he has performed the duties of the office, (fourteen and one-half months.)

Visits of inspection have been made by the Managers to the various parts of the Asylum as required by law, and they have recorded the results of their observations in the "Managers' Visiting Record."

The Managers again bear cheerful testimony to the faithful and humane manner in which the several attendants have per-formed their duties-duties of the most trying and arduous character. The condition of the patients, the cleanly and perfect order in which the various wards and dormitories are kept, all bear testimony to their efficiency.

From the observations of the Managers of the practical working of the institution during the past year, they here repeat what they said in their first annual report, " That they feel justified in expressing the opinion that it will, in the future, (as it has in the past) fully meet the reasonable expectations of its friends in the attainment of good and useful results, and that it will remain as a monument to the enlightened liberality of the age and the State which gave it existence."

To the Superintendent, to the Assistant Physicians, the Steward and Matron for the very successful and efficient manner in which their various duties have been discharged, the Managers desire to express their cordial satisfaction and approval.

Respectfully submitted,

FRANCIS S. LATHROP,
BEACH VANDERPOOL,
SAMUEL LILLY,
ANTHONY RECKLESS,
GEORGE A. HALSEY,
WILLIAM G. LATHROP,
JOHN S. READ,

Managers.

Dated, " State Asylum for the Insane at Morristown N. J."
October 31st, 1877.

1877

TREASURERS REPORT.

To the Board of Managers of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN :-The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from August 17, 1876, to -October 31, 1877, inclusive :

DR.

To amount received from the State Treasurer for officers' salaries,	$12,419 79
To amount received from the State Treasurer for county patients,	17,336 57
To amount received from sundry counties for support of county patients,	70,378 52
To amount received from the Steward of the Asylum for support of private patients,	15,075 06
To amount received from the Steward of the Asylum for hides, fat, old iron, &c.,	1,139 53
To amount received from the " Commissioners to select a site and build an Asylum for the Insane of this State,"	400 00
Total amount received,	$116,749 47

CR.

By amount paid M. B. Monroe, Steward's orders,	$9,7,230 15
By amount paid officers' salaries,	12,419 79
By balance in Treasurer's hands,	7,099 53
	$116,749 47

EUGENE VANDERPOOL,
Treasurer.

Dated State Asylum for the Insane, Morristown, N. J., Nov. 1, 1877.

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We hereby certify that we have examined the Treasurer's accounts, and compared the same with his books and vouchers, and find them, in accordance with the above statement, correctly stated and balanced.

GEO. A. HALSEY,
WM. G. LATHROP,
Auditing Committee.

1877

STEWARDS REPORT.

To the Board of Managers of the State Asylum for the Insane at Morristown, N. J.

GENTLEMEN : I have the honor to submit for your consideration my first annual report of the receipts and expenditures of this institution from August 17, 1877, to October 31, 1877, showing the financial operation of the institution for a period of four-teen months and seventeen days.

The cash balance remaining in the hands of the Treasurer at the close of the year being fully covered by liabilities at that date.

The expenses of the farm and garden for labor and material for the past year have been somewhat increased by reason of the unsettled state of the premises, requiring extra labor in preparing the fields and soil for tilling, and repairing the fences. The expenditures to this account amounting to $3,043.09, against which we have, in return, the products amounting to $4,353.41, showing a gain of $1,310.32 above expenses.

Accompanying is also submitted my second annual inventory and appraisement of the personal property in and about the institution for the fiscal year ending October 31, 1877, and in connection therewith I beg to mention the valuable assistance rendered me by Messrs. Tredwell and Esten, the two appraisers appointed by your board to act with me in making the estimate.

Eugene Vanderpool, Treasurer, in account with the State Asylum for the Insane, at Morristown, N. J.

DR.		CR.	
To amount received from Commissioners	$400 00	By disbursements as per 550 orders and the following abstract from August 17, 1876, to October 31, 1877	$97,230 15
To amount received for board, clothing and incidental expenses of private patients...	15,062 73	By balance	7,099 53
To amount received for board, clothing and incidental expenses of county patients	70,378 52		
To amount received from State Treasurer for maintenance of county patients	17,336 57		
To amount received from furniture account	35 10		
To amount received from incidentals, rags, &c.	108 97		
To amount received from postage	23 39		
To amount received from hides, tallow, &c	762 07		
To amount received from stock account	2i 0 00		
To amount received from funeral expenses	12 33		
	$104,329 68		$104,329 68
1877.			
Oct. 31-To balance cash on hand	$7,099 53		

ABSTRACT OF DISBURSEMENTS FROM AUGUST 17, 1876, TO OCTOBER 31, 1877.

Amusement account,	$560 28
Books and stationery,	328 37
Clothing,	3,978 60
Farm and garden,	3,043 09
Fixtures,	289 69
Flour,	4,612 50
Feed,	1,239 66
Fencing,	177 72
Fruit,	855 00
Freight,	648 23
Furniture,	1,026 77
Fuel,	4,897 11
Funeral expense,	187 33
Grounds and grading,	301 07
Groceries,	7,128 19
Harness, wagon, &c.,	404 61
Incidental, including brooms, brushes, pails, lubricating oil, waste, soap, combs and hair brushes, gas lighters, razors and straps, tobacco, telegrams and battery, locksmithing, leather, surgical instruments, boiler house supplies, etc., etc.,	1,863 29
Light,	2,212 73
Laundry,	2,123 52
Medical,	1,271 17
Newspapers,	28 96
Provision,	31,095 17
Postage,	320 00
Petty current expense,	500 00
Refunding,	408 27
Repairs,	1,124 56
Smith and wheelwright,	640 41
Stock,	142 00
Wages,	25,821 85
	$97,230 15
1877. Oct. 31st. Balance,	7,099 53
	8104,329 68

Respectfully submitted,

M. B. MONROE,

Steward.

Dated State Asylum for the Insane at Morristown, N. J., November 1st, 1877.

To Me Manager. *of* the *Asylum :*

GENTLEMEN:· In compliance with the law for organizing the Asylum, the Superintendent submits his second annual report.

	Men..	Women	Total
Patients in the Asylum October 31, 1876,	159	183	342
Received since to November 1, 1877,	**96**	84	**180**
Under care during the year,	255	267	522
Discharged recovered,	19	8	**27**
Discharged improved,	9	**12**	21
Discharged unimproved,	1		1
Died,	10	18	
Discharged and died,	39	**35**	**77**
Remaining October 31, 1877,	216		**445**

		99•4	
	County	**Private**	**Total.**
Of this number there were,	385	**60**	445

	Men	Women	total.
Whole number received from opening of Asylum August 17, 1876, to November 1, 1877,	257	269	526
Discharged recovered,	20	9	29
Discharged improved	9	13	22
Discharged unimproved,	1		1
Died,	11	15	29
Whole number discharged and died,	41	40	81
Whole number remaining,	216	•2 0	**445**

The number of patients under care at the clue of the last year, October 31, 1876, was three hundred and forty-two; one hundred and fifty nine men, and one hundred and eighty-three women.

The number received since, viz., from November 1, 1876, to

October 31, 1877, inclusive, was one hundred and eighty ; ninety-six men and eighty-four women.

The number of cases under treatment during the year was five hundred and twenty-two ; two hundred and fifty-five men and two hundred and sixty-seven women.

Of the seventy-seven discharged during the year, twenty-seven were considered as recovered, twenty-one as improved, one as unimproved and twenty-eight died.

There remained at the close of the year four hundred and forty-five, of whom two hundred and sixteen were men, and two hundred and twenty-nine women.

Death occurred in three cases from consumption ; in one from apoplexy ; in three from exhaustion of acute mania ; in one from suicide; in one from cholera morbus; in one from disease of the heart ; in fourteen from general chronic exhaustion ; in one from ovarian tumor with dropsy; in one from congestion of the liver ; in one from softening of the brain and in one from epilepsy.

By reference to the table showing the duration of disease in the cases received and treated, it will be perceived' that a very large number or proportion of them have been deranged for long periods, and that, as -a consequence, only a small percentage are. hopefully curable.

This state of things also operates to greatly increase the ratio of deaths, taking into view the total number of chronic cases under care.

The general health of the establishment has been very good during the year, as it was at its close.

STATISTICAL TABLE.

I.

	Men.	Women.	Total.
Sexes,	257	269	526

II.

		Men.	Women.	Total.
Ages between	5 and 10,		1	1
	10 and 15,	1		1
" "	15 and 20,	13	8	21
	20 and 30,	55	54	109
" "	30 and 40,	69	81	150
	40 and 50,	65	60	125
	50 and 60,	30	40	70
,,	60 and 70,	18	16	34
	70 and 80,	4	7	11
	80 and 90,	2	2	4
		257	269	526

	Men.	Wome	Total
Domestic state, married,	103	124	227
unmarried,	137	108	245
widowers,	15		15
widows,		32	32
divorced,		1	1
unknown,	2	4	6
	257	269	526

IV.

Nativity.	Men.	Women.	Total.
New Jersey,	104	76	180
New York,	32	38	70
Pennsylvania,	1	7	8
Massachusetts,	1	4	5
Ohio,	2		2
Maine,	1		1
New Hampshire,	1		1
Vermont,		1	1
Virginia,		1	1
Georgia,	1		1
Louisiana,		1	1
Iowa,		1	1
Michigan,		1	1
Ireland,	50	65	115
Germany,	32	34	66
England,	12	15	27
Wales,	2	1	3
Scotland,	2	3	5
Canada,	1		1
Prussia,		2	2
France,	3	1	4
Holland,	1		1

1

8

7

7

Sweden,		1	1
Austria,	1		1
Poland,	1		1
Norway,	1		1
West Indies,	1		1
Unknown,	7	17	24
	257	269	526

V.

How sent.	Private.	Indigent.		Criminal.	Total.
		Pauper.			
Bergen, Essex,				1	46
Hudson, Morris,	3	40	2	2	99
Passaic, Sussex,	16	74	7		78
Union, Warren,	15	58	5	9	60
Middlesex,	6	40	5	1 61 22 74	
Monmouth,	1	57	2	1	46
Camden, Mercer,	1	17	4		5
Hunterdon. Ocean,	7	62	5		2
New York,	4	41			1
Louisiana,	5 2				1
	1 1				1
	1 1				1
	28 1				28 1

Duration of Disease.	Men.	Women.	Total.
More than 24 years,	1	1	2
"		1	1
25 "	1		1
27		1	1
28		1	2
30		1	1
31.		1	1
33		1	1
34	1	1	2
35			1
36 Unknown years,	1	12	13
	257	269	526

No important new observation or inference has been made during the last year, either in regard to the seat, nature or forms of insanity, in cases that have come to our notice. We assume, as a matter of fact fully established, that the seat of insanity is in the brain, and that it depends generally upon primary, but occasionally upon sympathetic, disease of that organ.

The office and influence of the brain in developing and modifying the various mental faculties being admitted, a flood of light is shed on the phenomena of mind, both in health and disease. In other words, a physiological system of mental philosophy is thus established, which furnishes ample facilities for understanding and explaining the varieties in natural character, and the almost infinite variety in the modification of symptoms in mental derangement.

Thus it has been forcibly said by a distinguished author that, "Without the knowledge or admission of the connection of the mind with a material organ, in vain would the acutest and profoundest genius continue to observe and meditate on the phenomena and seek to discover the laws of mind, so long as the most important of all its modifying influences, its connection with a material organ, shall be overlooked, and in vain, in studying its pathological states, shall we seek assistance from the works of philosophers who have paid no regard to, and are unacquainted with, the effects even of the healthy organization." It may also be added, with equal, if not greater force and truth, that the recognition of the connection between the faculties of the mind with the regions and parts of the brain, in health and disease, or in the sane and insane state, is of primary importance in all pathological inquiries on the subject. If this, the true relation between the two, be neglected or ignored, the principal, if not the only advantage gained by pathological inquiries, will be to re-demonstrate what no modern observer denies, or even

doubts, that insanity is caused by, or is based upon, disease of the brain.

If it be practicable, by, pathological investigations, to establish the connection between disordered faculties of the mind and diseased regions or parts of the brain, thus verifying the result of observations on the healthy, living subject, and aiding to establish a physiological system of mental philosophy, the advantage would be great indeed ; because, with the increasing light in this direction, an improved medical, as well as mental and moral, treatment naturally follows.

In illustration of the practical advantage of this view of the functions of different regions and parts of the brain, it may be stated, that while the disease of the brain, as characterized by excited, depressed or perverted action, may account for the forms of insanity called mania, melancholia, &c., yet the mental symptoms or phenomena of a very large number, or proportion even, of the cases to be found in all our institutions, are so mixed and varied in comparison with each other, as to be entirely inexplicable on the principle of similarity in the kind of morbid action in the brain In fact, the only intelligible explanation of the phenomena in this large class of cases, is that they result naturally from the various combinations of diseased parts or organs of the brain, in the same way that natural character in different individuals, results from different combinations in the activity and strength of the same parts.

Thus, to attempt to follow out and classify cases of insanity, based only upon the effect of different combinations in diseased parts or organs of the brain, in different cases, is alike absurd in principle and useless in practice.

The general principles of treating the disease heretofore in use, and admitted to be well adapted for its relief, have been applied with usual success. It may be mentioned, however, that after careful observation and much reflection in regard to the uses and abuses of alcoholic stimulants, in health and disease, the conclusion has been reached, that they, as a class of agents, neither supply nutriment or permanent strength, but that their effects are rather in the nature of anesesthetic palliatives, except in rare cases, where a temporary spur of the vital forces may be needful to bridge over an emergency in failing strength.

FARM AND GARDEN.

By reference to the lists of products of the farm and garden, submitted for inspection, a general idea will be obtained in regard to their utility and convenience. It must be remembered, however, that until fences are made, of which a large amount is required, and many other necessary improvements effected, the

use of the land will be comparatively of less value than after-wards.
A pretty large number of the male patients have engaged in labor, under proper supervision, on the farm, in the garden, on the grounds, in excavating and grading and filling roads, in the laundry, the mechanical bakery and in various shops for wood, iron, tin and copper work, upholstering, &c.
The number of female patients employed is usually greater than the number of male, from the fact that there are a greater variety of employments about an institution suited to the capacity and previous habits of women than of men.
Aside from a great amount of work done by women about the wards, of which no special account is made, they give large assistance in the ironing room of laundry and in the various sewing rooms, in making and repairing clothes.

FIXTURES AND MACHINERY.

The experience of the last year in the arrangement and working of the various fixtures for warming, ventilating and lighting the building, for supplying hot and cold water, for cooking, bathing, closets, &c.; also, that the various machinery connected with the several departments, as the engines, fans for ventilating, the laundry, mechanical bakery, and shops for wood and iron, have worked in the most satisfactory manner, seldom causing delays in use, and with small expense for repairs.

IMPROVEMENT OF GROUNDS.

The work of grading and improving the grounds has been commenced and carried as far as practicable, by the unassisted means at the command of the institution.
The design for executing this work, as commenced in front of the wings on the south side of the centre building, also for a general system of carriage drives, walks, &c., embracing the planting of a large number of 'shade and ornamental trees, it is believed, can be carried out at no very distant day, even without the aid of a special appropriation, though by the latter, means, the patients would sooner enjoy the advantage of the grounds in a finished state.

EXAMINATION BY VISITORS.

Among the agreeable duties and useful services of the officers of an institution is that of receiving and attending to visitors who may call for the purpose of obtaining information by observation and inquiry as to the extent, arrangement and character of the building and fixtures ; also of the general and special

adaptation of the system in use for the cure and care of the insane.

Such observation and inquiry enabling intelligent persons to form more correct and definite views of the nature and extent of the work here performed, and to judge more correctly of the adaptation of the system and means by which it is accomplished, much of the vague and unfounded prejudice frequently entertained against institutions of this class is thus removed and the friends of insane persons thereby become willing to place them under care and treatment promptly after the attack, and while the disease may be regarded as curable.

It should be understood and remembered, however, that the care and treatment of disordered minds is a responsible and serious work to those engaged in it, and that it is no part of their duty or purpose to make a spectacle of the excitable and irregular classes of the insane, to gratify the idle or perchance morbid curiosity of pleasure parties, seeking amusement only.

Visitors, unless specially requested by the friends of patients, to see them, should seldom do so, nor seek to obtain detailed information in regard to the cause and course of their mental disorder, about which the officers and employees of the institution, out of respect to the feelings alike of patients and their friends, and to preserve the character of the institution above reproach, in this particular, are bound in honor to maintain a discreet and guarded silence.

AMUSEMENTS.

Next to useful labor, recreation and amusement may be reckoned as important to the mental, moral and even physical welfare and improvement of the insane.

Efforts in this line have been very successfully made, considering the partial supply of facilities possessed by this institution as by most others, during the early period after opening. Fortunately, a room about fifty by sixty feet in extent and twenty-four feet high, was specially provided as a place for amusements. This has been used in various ways repeatedly during nearly every week by the members of the household and such outside employees as chose to be present. These entertainments have consisted of music, instrumental and vocal ; dancing with music, generally of a Chickering concert grand piano, one or more violins, two cornets and a trombone. Also, of tableaux, minor theatricals, &c.

This class of amusements, being quite inspiriting, has seemed better adapted to arouse the attention and elicit the interest of a large portion of the patients heretofore and now under our charge. In other circumstances, and at a future day, more attention may be given to other classes of entertainments, as magic

lantern representations, readings, lectures, &c., &c. In some of the wards we have pianos and other musical instruments; billiards, chess, cards, dominoes, &c.

We have been highly fortunate in establishing among the employees, a brass band of skilled musicians, with eight or ten pieces ; also an excellent choir for Sunday service in the chapel, and for musical entertainments whenever. desired. The music of the band has been a particularly attractive means of outside entertainment, during the twilight of summer evenings, and has amply repaid the trouble and expense of establishing and maintaining it.

CHAPEL SERVICES.

Religious services have been held regularly in the chapel of the institution, a highly attractive room, on nearly every Sabbath of the year. In addition to the direct utility of this as a religious service, to very many of the patients and employees, it is regarded by all who attend as a valuable break and change in the monotony of a day on which accustomed employments and amusements are largely suspended. It may be further stated, while on the subject of chapel service, that the moral and religious feelings in many of the inmates of institutions of this class are quite natural in activity and strength, and that, consequently, the weekly chapel service is regarded as a pleasant and profitable occasion. To render it of increased value and interest, clergy-men of different denominations have been secured to conduct it, so that with few exceptions, the members and attendants of the various religious denominations have had the opportunity and pleasure of hearing clergymen of their own persuasion here.

When it is remembered that it is a practical principle of great importance to engage the attention and gratify the demand for exercise of all sane faculties of the mind, and that with many of the members of our household the religious feeling's are quite in their natural state, the importance of such service to the inmates will be understood and appreciated.

MODE OF RECEIVING AND TREATING PATIENTS ON THEIR ARRIVAL.

If persons have not been, informed before leaving home to go to the institution, of the decision of their friends to place them there, as they generally should be, on arriving at the building their purpose and object should be so distinctly stated and explained that no uncertainty or misunderstanding should longer exist in regard to the matter. This is quite essential in securing their confidence in the beginning. In too many instances false statements are made to them on the *way* as to the object and end of the journey, or such exaggerated impressions given of the

ability of the officers of the institution to effect a certain and speedy restoration, that danger exists of a serious disappointment on the part of the patient. After parting from friends at the institution, the patient. is placed in one of the wards of the building, introduced to the attendants, and given such information in regard to the mode of life and treatment in the Asylum as to relieve him, if possible, of apprehension in regard to his personal safety and welfare, and as will aid him to conform to Its needful regulations.

Exceptions to this course may occur when the patient is too dull to understand what. is stated, or too much excited and deranged to heed what is said.

Before leaving the institutions, the friends are expected to give a history of the case, which should embrace information in regard to the character and habits of the person before the at-tack ; and ,as full and accurate a statement as possible of the cause or causes of the attack and the rise, progress and peculiarities of the mental disorder up to the time of his admission to the Asylum.

To this should also be added an account of the medical treatment, if any has been received, and the other general management adopted.

This being done, and an agreement made as to the person with whom correspondence will be held about the patient, the friends leave with the assurance that all future changes in his condition deemed important for them to know will be communicated to theta in writing, and that all letters of inquiry, from the regular correspondent, will be promptly answered. The responsibility of the case is then with the officers of the institution, and in justice to them, and to secure the greatest benefit to the patient from the change of place and association, the medical treatment, &c., the subsequent action of friends in regard to him should be strictly with the knowledge and approval of the physicians of the. institution, assuming that they are in a position to judge with the greatest. certainty of what will or will not be safe or useful for him.

ACKNOWLEDGEMENTS

From A. S. Barnes & Co., of New York, we have received through W. B. Lyon, Esq., of Morristown, twenty-eight volumes for patients' library ; and from Robert. Carter & Brothers, of the same place, also through the agency of Mr. Lyon, nineteen volumes_

To William U. Lathrop, Esq., of Boonton, and member of the Board of Managers, we are indebted for a large collection of choice ornamental flowering plants.

To Miss D. L. Dix we are under obligation for several volumes of interesting books for the use of the patients.

From Frederick Prime, Esq., of Pelham, New York, a large anti valuable collection of monthly periodicals has been received.

To many citizens of Morristown and the vicinity we are indebted for a large amount of reading matter for the patients, deposited) in boxes at post office and elsewhere, and consisting of quarterly and monthly periodicals, newspapers, religious and secular, many of the latter being illustrated.

We have also received gratuitous copies of the following papers from the publishers, for which we return many thanks : The Jerseyman, Morris Republican, and Democratic -Banner, of Morristown ; the Dover Index and Iron Era, of Dover; also the West Jersey Pioneer, of Bridgeton ; the Star of the ('ape, of Cape May ; and the Perth Amboy Gazette, of Perth Amboy, N. J.

Collections of magazine have also been received from F. S. Lundy and J. L. Runyon, Esqrs., Morristown, and a complete set of the numbers of Peterson's Magazine from Mrs. Wilson Banks, of Manumuskin, Cumberland county, N. J.

CONCLUSION.

Dr. A. K. Macdonald, Second Assistant Physician, *who ably* performed the duties of his place from the opening of the institution, resigned his position in .July last. to engage in general practice, and Dr. T. M. Lloyd, of Salem county, in this State, was appointed to supply the vacancy.

To the resident. officers who have engaged with me in carrying out, the designs of the State in the erection and endowment of this great charity, and to many faithful attendants and assist-ants, I am under much obligation for intelligent and valuable services in their several departments.

To the members of the) Board of Managers of the Asylum, I beg to tender my most grateful acknowledgments for the constant interest manifested by them in behalf of the institution, for the marked personal kindness that has characterized their deportment, and for the liberal manner in which they have conceived and executed the various plans for perfecting and completing the institution.

Respectfully submitted,

A. BUTTOLPH

State Asylum for the Insane,
Morristown, N. J., Nov. 1, 1877.

ACCOUNT OF FRUIT, &C., CANNED AND PRESERVED.

503	Gallons	canned tomatoes.
50		preserved currants.
50		currant jelly.
12	"	currants canned.
7		cherries canned.
3		blackberries canned.
1-		raspberry jam.
181		peaches canned.
25		pears canned.
4		pears preserved.
23		peaches preserved.
19		pears pickled.
10		pears ginger.
40		peaches pickled.
2		watermelon preserved.
19		strawberries canned.
3		strawberries

Barrels cucumber pickles.
Bowls marmalade.
Gallons quinces canned.

FARM AND GARDEN PRODUCTS.

1	Calf lb165, consumed @	6c.,	$9 90
1	Calf, raised,		15 00
38	Hogs, lb 5,757., @ 10c.,		575 70
58	Shoates, lb 100,		
25	Shoates, 1b50,		770 00
6	Hogs, large,		
89	Turkeys,		100 00
166	Fowls, 55c.,		91 30
384	Gallons milk, 18c.,		69 12
275	Dozen eggs, 25c.,		68 75
2000	Bundles corn stalks,		60 00
75	Tons hay, @ $15.00,		1,125 00

3 Tons straw, @ $10.00, 800		$30 00
Bushels corn, 30c.,		240 00
1318	potatoes, .	659 00
182 "	oats, @ 30c.,	54 60
60	rye, @ 65c.,	39 00 7
14	buckwheat, @ 50c.,	25 50
50 apples, @ $1.00, Rent,		00 20
		00
		$2,974 72

GARDEN.

6435 Heads cabbage, 4c.		$257 40
6200 Celery plants, .		186 00 3
762 Heads lettuce, c. 400		81 140 00
Bushels turnips,		100 20 75
334 "	tomatoes, 30c.	00 110 00
331	turnips, flat,	60 00
303	beets, 40c.	39 60
150	parsnips, 40c.	32 00
132	squash, 30c.	14 80
80	sweet corn,	10 00
'74	cucumbers,	15
29	rhubarb,	8 0 00 0
20	oyster plant,	
20	carrots,	
17	string beans, 75c.	12 75
15 "	Lima beans,	11 62
10	radishes,	10
10	peppers,	5 50 00
1683 Muskmelons, 3c.		
1200 Quarts strawberries, 8c. 238		
Quarts raspberries, 8c. 166		49 49
Watermelons, 10c.		96 00
136 Quarts blackberries, 8c. 32		19 04
Bushels currants,		16 60
30 Bushels grapes, $1.50, 50		10' 88
Shocks corn stalks,		40 00
		45 00
		10 00
		$1,378 69
Total products farm and garden,		$4,353 41

ACCOUNT OF ARTICLES MADE.

402 Dresses. 149
Petticoats,

1877

312 Chemises.
136 Aprons.
29 N. Gowns.
118 Underskirts, women.
46 Sacks.
21 Skirts.
6 Drawers, W.
202 Stockings.
156 P. Handkerchiefs.
16 Camisole.
341 Shirts.
157 Drawers, mens.
168 Undershirts, mens.
211 Socks.
569 Sheets.
530 Pillow Cases.
466 Blankets:
42 Counterpanes.
584 Towels.
17 Mattresses.
101 Bags.
30 Bed Ticks. 24
Burial Robes.
233 Curtains.
336 Napkins.

1877

EXTRACT FROM THE BY-LAWS.

ADMISSION OF PATIENTS.

ORDER OR WARRANT FILED.

1. Whenever a patient is sent to the asylum by the order of any court, justice, or judge, the order or warrant, or a copy thereof, by which such person is sent, shall be lodged with the superintendent.

CLEANLINESS.

2. Each patient, before admission, shall be made perfectly clean, and be free from vermin or any contagious or infectious disease.

CLOTHING FOR MEN.

3. Each male patient shall be provided with at least two shirts, a new and substantial coat, vest and pantaloons of strong woolen cloth, two pairs of socks, a black cravat, a good hat or cap, and a pair of new shoes or boots, together with a comfortable outside garment.

CLOTHING FOR WOMEN.

4. Each female patient, in addition to the same quantity of under garments, shoes and stockings, shall have a flannel petticoat, two good dresses, also a cloak or other outside garment. In case the patient is so much excited as not to admit of being thus clothed, other clothing that can be kept on, that is comfortable and in sufficient quantity, with a change thereof, may be substituted.

It is very desirable that extra and better apparel should be sent with those accustomed to it, that when they become better, and when they attend religious worship, walk or ride out, that their self respect may be preserved.

In all cases the patient's best clothing should be sent-it will be carefully preserved, and only used when deemed necessary for the purposes above mentioned.

1877

JEWELRY, &C.

Jewelry and all superfluous articles of dress, knives, &c., &c. should be left at home, as they are liable to be lost.

HISTORY OF CASE.

A written history of the case should be sent with the patient, and, if possible, some one acquainted with him should accompany him to the asylum, from whom minute, but often essential particulars, may be learned.

TERMS OF ADMISSION.

6. The price of board, including washing, mending and attendance, for all who are supported at public charge is three dollars and fifty 'cents per week. For private patients, or those sup-ported by themselves or their friends, the price varies from five to ten dollars, according to the trouble and expense incurred, and according to their ability to pay. Higher prices are paid by a special agreement with the superintendent for extra attention and accommodations. Payments required to be made quarterly, in advance, from date of admission.

BOND, &C.

7. A bond, with satisfactory sureties, will be required for the payment of the board and expenses, and for the removal of the patient when discharged, of all persons excepting those sent at the expense of the counties.

Those who bring friends should be prepared to give such a bond, and if strangers, bring evidence of their responsibility.

REPORT OF THE MANAGERS
OF THE
STATE ASYLUM FOR THE INSANE,
MORRISTOWN, N. J.
1878

1878

OFFICERS OF THE ASYLUM.

MANAGERS.

FRANCIS S. LATHROP, Madison, BEACH VANDERPOOL, Newark, SAMUEL LILLY, M, D., Lambertville, ANTHONY RECKLESS, Red Bank, GEORGE A. HALSEY, Newark, WILLIAM G. LATHROP, Boonton, JOHN S. READ, Camden.

OFFICERS OF THE BOARD OF MANAGERS

PRESIDENT,
FRANCIS S. LATHROP, Madison,
SECRETARY,
SAMUEL LILLY, M. D., Lambertville.
TREASURER,
EUGENE VANDERPOOL, Newark.

RESIDENT OFFICERS.

SUPERINTENDENT AND PHYSICIAN,
H. A. BUTTOLPH, M. D., LL. D.

ASSISTANT PHYSICIAN, EDWIN E. SMITH, M. D.

SECOND ASSISTANT PHYSICIAN,
THOMAS M. LLOYD, M. D.

STEWARD,
MARTIN B. MONROE.

MATRON.

MISS MARY TABOR.

1878

MANAGERS' REPORT.

To His Excellency, George B. McClellan, Governor of the State of New Jersey :

The Managers of the State Asylum for the Insane, at Morris-town, in obedience to the tenth section of the supplement to the act to provide additional accommodations for the insane of this State, respectfully submit their third annual report.

. The full and interesting statement of the Superintendent, Dr. Buttolph, annexed hereto as a part of this report, gives complete details of the changes among the patients during the past year, caused by admissions, deaths and removals, with his observations on the causes of insanity, its prevention and cure, or mitigation when actively manifested, or its amelioration when incurable.

The report of the Treasurer, Eugene Vanderpool, Esq., gives a full and clear account of the financial condition of the Asylum, its income and expenses, and is also made a part of this report.

The inventory of the personal property belonging to the Asylum, made in detail by Mr. M. B. Monroe, the Steward of the Asylum, with the appraisal under oath by Hon. A. M. Tredwell, of Madison, and Mr. G. W. Esten, of Boonton, appointed by the Managers for that purpose in obedience to the provision of the fifteenth section of the act mentioned, shows the total valuation of such personal property to be ninety-seven thousand eight hundred and fifty and one hundredth dollars ($97,850.01). The main increase over last year's inventory is accounted for by the new furniture for the third and fourth floors, supplied by the Commissioners under the last appropriation made in part for that purpose.

The Steward's report of the results from the farm and garden for the past year indicates clearly how important a part they perform in ministering to the comfort of the inmates of the Asylum and to economy in its support.

Realizing how important are pleasant surroundings in the cure or amelioration of cases of insanity, the Managers regret that their means do not admit of a more rapid improvement of the grounds around the Asylum by covering the waste places with grass, trees and flowers.

There has been no change in the officers of the Asylum during the past year, and all unite harmoniously and heartily in successfully carrying on the great work committed to their charge.

Regular weekly visits have been made to the Asylum by the Managers. The universal good order and cleanliness found throughout, with the kindly yet firm control maintained by the attendants over their afflicted charges, and the entire absence of any manifestations of fear or embittered feelings on the part of the patients toward their attendants, has been a constant source of pleasure to the visitors.

To the resident officers of the institution, Dr. Buttolph, Superintendent ; Drs. Smith and Lloyd, Assistant Physicians ; Miss Tabor, the Matron ; and Mr. Monroe, the Steward, for their untiring watchfulness and care, and their unwearied industry and self-denial in the performance of their important duties, the Managers can only express themselves in words of commendation and encouragement. To the Comptroller and the State Treasurer, for their promptness and courtesy in all the transactions of the institution which passed through their offices, the Managers desire to express their thanks.

The Governor of the State and the Joint Committee of the Senate and the House of Assembly on the Asylums, have visited the institution during the past year, and by their words of encouragement, have lightened the cares of the Managers.

The Managers have also been gratified by receiving visits of observation and comparison from the official members of Boards of Managers of other institutions for the insane and of Boards of State Charities in general.

Respectfully submitted,

FRANCIS S. LATHROP,
BEACH VANDERPOOL,
SAMUEL LILLY,
ANTHONY RECKLESS,
GEORGE A. HALSEY,
WILLIAM G. LATHROP,
JOHN S. READ,

Managers.

Dated "State Asylum for the Insane at Morristown, N. J.," October 31st, 1878.

TREASURERS REPORT.

To the Board of Manager's of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN: The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from November 1st, 1877, to October 31st, 1878, inclusive.

DR.

Balance on hand, November 1st, 1877		$7,099 53
To amount received from the State Treasurer for officers salaries	$8,920 83	
To amount received from the State Treasurer for county patients	20,636 71	
To amount received from sundry counties for support of county patients	86,781 48	
To amount received from the Steward of the Asylum for support of private patients	22,403 95	
To amount received from the Steward of the Asylum for hides, fat, old iron, &c	3,091 46	
		141,834 43
		$148,933 96

CR.

By amount paid M. B. Monroe, Steward's orders	$136,437 17	
By amount paid officers salaries	8,920 83	
By balance in Treasurer's hands	3,575 96	
		$148,933 96

EUGENE VANDERPOOL,
Treasurer.

Dated State Asylum for the Insane, Morristown, New Jersey, November 1st, 1878.

We hereby certify that we have examined the Treasurer's accounts, and compared the same with his books and vouchers, and find them in accordance with the above statement, correctly stated and balanced.

WM. G. LATHROP,
JOHN S. READ,
GEO. A. HALSEY,
Committee.

STEWARDS REPORT.

To the Board of Managers :

GENTLEMEN :-Pursuant to the requirements of the act providing for the organization of this Asylum, I have the honor to submit for your consideration the accompanying "Abstract of the Receipts and Expenditures " of the Institution for the fiscal year ending October 31st, 1878. The balance of cash on hand at the close of the year being fully covered by the liabilities at that date. The expenditures for "improvements of buildings" is mainly the cost of necessary improvements upon outbuildings and dwellings which were upon the premises at the time the site was selected by the Commissioners, such alterations and improvements being required to make the buildings available for the purposes of the Asylum.

The improvement of the Farm and Garden has been continued and new fields prepared for cultivation, requiring increased expenditures for labor, implements and fertilizers, all of which have served to increase the expenses above the previous year. The entire expenditures to this account amounting to five thousand one hundred and six and eighty-nine one-hundredths ($5,106.89) dollars, in return for which we have the products, which amount to six thousand three hundred and eighty-two and forty-nine one-hundredths ($6,382.49) dollars, showing a gain of one thou-sand two hundred and seventy-five and sixty one-hundredths ($1,275.60) dollars above the expenses. Herewith is also submitted my third annual inventory and appraisement of the personal property in and about the premises for the year ending October 31st, 1878. In the performance of this duty I have been ably and intelligently assisted by Hon. A. M.-Tredwell and Mr. George W. Esten, the two gentlemen appointed by your board to act with me in making the appraisement, their previous experience in making the former inventories having fitted them to render valuable services for the State.

Steward's Annual Abstract of Accounts for the year ending October 28th, 1878.

DR.			CR.	
To balance October 31st, 1877,		$7,099 53	Amusements	$988
To amount received for board, clothing and incidental expenses of private patients		22,403 95	Books and stationery	434
To amount received for board, clothing and incidental expenses of county patients		86,781 48	Clothing	5,634 99
To amount received from State Treasurer for county patients		20,636 71	Farm and garden	5,106 93
To amount received for sundries, rags, &c		86 07	Fixtures	3,695 63
To amount received for postage stamps		54 19	Flour	4,034 89
To amount received for hides and tallow		2,951 20	Feed	1,214 74
			Fencing	624 10
			Fruit	2,173 31
			Freight	2,729 89
			Furniture	2,314 52
			Fuel	13,398 15
			Funeral expenses	373 34
			Grounds and grading	4,241 27
			Improvement of buildings.	2,282 90
			Incidentals, including brooms,	35 68
	$140,013			98

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purchases for said Asylum were made by him personally for cash and not on credit or time, and every voucher for money paid was duly filled up and signed by him and delivered to the person named therein at the date thereof; and that the accounts of employees and patients have been kept and settled by him as provided in the act entitled "A further supplement to an act en-titled `An act to provide additional accommodations for the In-sane of this State,'" approved April 13th 1876.

M. B. MONROE.

Sworn and subscribed before me this seventh day of November, 1878.

GEO. WALKER JENKINS, *Notary Public of New Jersey.*

SUPERINTENDENTS REPORT.

7O the Managers of the Asylum :

GENTLEMEN :—In compliance with the law for organizing the Asylum, the Superintendent submits his annual report :

			Total.
Patients in the Asylum October 31, 1877	216	229	445
Received since to November 1, 1878	71	78	149
Under care during the year	287	307	594
Discharged recovered	12	16	28
Discharged improved	24	23	47
Discharged unimproved	7	4	11
Died	17	11	28
Discharged and died	60	54	114
Remaining October 31, 1878	227	253	480
	County.	Private.	Total.
Of this number there were		71	480
	Men.	Women.	Total.
Whole number received from opening of Asylum Aug. 17, 1876, to Nov. 1, 1878	328	347	675
Discharged recovered	32	25	57
Discharged improved	33	36	69
Discharged unimproved	8	4	12
Died	28	29	57
Whole number discharged and died	101	94	195
Whole number remaining	227	253	480
Total discharged and remaining	328	347	675

The number of patients at the close of the last year, October 31st, 1877, was four hundred and forty-five; two hundred and sixteen men and two hundred and twenty-nine women.

The number received since, viz.: from November 1st, 1877, to

October 31st, 1878, was one hundred and forty-nine ; seventy-one men and seventy-eight women.

The number of cases under treatment during the year was five hundred and ninety-four; two hundred and eighty-seven men and three hundred and seven women.

Of the one hundred and fourteen discharged during the year, twenty-eight were considered as recovered, forty-seven as improved, eleven as unimproved, and twenty-eight died.

Death occurred in two cases from consumption; in twelve from general exhaustion of the bodily powers; in seven from epilepsy ; in three from general paresis; in two from congestion of the brain ; in one from suicide, and in one from exhaustion of acute mania.

By reference to the table showing duration of disease in the cases received and treated this year, as well as to those of the two preceding, and to the above statement of the causes of death, it will be perceived that the number or proportion of chronic, and therefore incurable, cases thus far received, will serve to diminish the percentage of recoveries and increase that of deaths for a series of y ears to come.

It should be remembered, however, that while the first and highest office of an institution of this kind may be to promote the recovery of its inmates, to health and reason, yet that its special adaptation, through arrangement of buildings and the organized methods of management adopted to secure the comfort and safety of its inmates, as well as to relieve families and communities from disturbance, even danger from their presence, is an office scarcely inferior, in importance, to that first named.

The institution has been entirely free from epidemic or contagious disease during the past year, and the general health of ' its inmates was good at its close.

It may be added, in this connection, that the situation of the building about six hundred feet above tide-water, with no local causes of ill-health in the vicinity, and with the dry, pure air incident to such locality, renders it a highly desirable resort for persons living in low and marshy districts and especially, during the Summer months ; indeed, at all seasons, for those re-siding in cities and who are so much benefited by change of air.

The general working of the institution, including buildings, fixtures, machinery, &c., has been highly successful and satisfactory, during the past year.

Work on the farm and in the garden has also been attended by fair results, as will be perceived by the lists of products from these sources, and shown in another place. Very substantial improvements have been made in the grounds, in clearing away the accumulated debris of building, in the rear, and in grading grounds in front of the building, excavating for, and filling roads, sodding terraces, etc. This important work should

be pressed forward at a steady and still more vigorous pace in future, by such aid from the State, as its great importance demands.

The institution cannot, of course, be rendered attractive and useful in the highest degree, until the grounds in its vicinity are, by cultivation, brought into constant use by the inmates, for the purpose of healthful and pleasurable exercise.

The design proposed for laying out grounds, in addition to carriage drives,, approaching all the doorways of the centre building and the three front wings, on either side, embraces a central avenue of approach, in front, fifty feet wide, finished in a substantial manner with stone paved gutters, also with double rows of trees on either side and walks between.

By this arrangement, the front grounds will be divided for free use by both sexes at the same hours, a point of great practical importance.

In addition to the central avenue, carriage roads with walks on one side, will be laid from the centre, right and left, about one mile in extent, to encircle the grounds and meet at the central avenue, within the general enclosure, about one-third of a mile distant from the main building.

The Gate Lodge for controlling the entrance to and exit from the grounds, will be located beyond the junction of the side roads with the centre avenue. The extent of walks and carriage drives thus formed within the grounds, will greatly lessen the motive for going beyond them, for those who walk for exercise, and even, for many who drive, for the benefit of temporary change from the wards of the house.

These roads, particularly the central avenue, should be excavated and filled with stone and all of them finished with a coating of gravel or broken stone, to insure a dry and permanent surface.

To finish these and to grade the grounds generally, and to lay the necessary walks in a substantial manner, will, of course, involve considerable expense, but when completed, they will seldom require repairs of any great extent.

'The top soil obtained in making the needful excavation for roads, supplies what is required for surface dressing for grass plots, borders to roadways, terraces, &c., and for which purpose, there is now and will in future be a large demand.

Hitherto we have not been prepared to plant shade and ornamental trees and shrubs, nor can this be done in future, until the surfaces on which they are to be planted are brought to the proper grade.

The supply of water to the institution is from springs on the hill in the rear of the building, to which it is supplied by gravity, under a head of one hundred and ten feet.Water thus derived from deep springs is free from the impurities incident to that obtained largely from the surface of - the ground, and the supply is, of course, more uniform and permanent.

The original reservoir consists of mason-work of stone and surmounted by a framed wooden structure, This, however, is of small capacity, too small to enable us to utilize the flow of water at all hours of the day and night, and, particularly, for storing the quantity needful in case of any occasion calling for large use and for ensuring a full supply, during periods of protracted drought in Summer and Autumn. For these purposes a reservoir adjoining, or in the immediate vicinity of the original, at the highest elevation practicable, is very important, and should be made to contain not less than three million gallons.

A plan for this, with estimate of cost, has been obtained from a competent engineer, who reports that the work can be done for from $3,000 to $5,000, according to capacity.

The arrangements already provided and in use for filtering the water in reservoir and for drawing it there from to the house, would need but little modification or expense to adapt them to the requirements of the enlarged plan proposed.

Beyond a certain capacity, however, it would not seem expedient to go, as, if too large, the amount of daily flow from the springs in comparison with the amount on hand, would be so small that it would inevitably become disagreeably warm, at times, if not positively stagnant and unwholesome. Judging from the use of water and the amount supplied by springs since the institution was opened, it is believed that a provision for storing three, or three and a half million gallons, would be ample for all emergencies, whether arising from dry seasons, or extra large use. To shorten the time within which such a reservoir could be made, during the next year, the ground where it should be located, can be cleared of trees, shrubs, &c., during the coming Winter, when other work would not be pressing.

Considerable progress has been made, during the last year, in the work of improving the farm for more -profitable use in the future, but there yet remains much to be done in this department.

Among the larger expenditures yet required, is the construction of the necessary outbuildings for storing farm products, including hay, grain, vegetables, &c.; also, stables and sheds for the protection of stock of all kinds usually raised and kept on a farm.

During the last year. eight of the enclosed exercise courts or grounds have been supplied with simple but tasteful summer-houses, eighteen by thirty six feet in extent. They consist of a floor of yellow pine boards, on a proper foundation with roofs supported on octagon columns, with open railings between and

so situated, in regard to the board walks in the yards, as to have the latter intersect at the ends and sides of each. They are all sup-plied with stationary tables and seats placed near each corner, for the convenience of those who may wish to engage in light work, playing games, &c., and out of the way of those who may walk up and down, or across the floors in either direction. Seats are also provided at other places in these grounds, for the accommodation of those passing near them while walking. The enclosed courts, five in number, for each sex, are of liberal size, and are regarded as very valuable aids in securing daily exercise in the open air, for a large number or proportion of the in-mates; particularly those who cannot safely and properly be al-lowed to walk at large, at greater distances from the house. In most instances, where an attempt is made to dispense with the use of such grounds for this class of patients, they are kept within their wards or rooms with few exceptions and suffer much in consequence.

Nativity.			Total
New Jersey	132	100	232
New York	50	52	102
Pennsylvania	2	10	12
Massachusetts	3	7	10
Ohio	3	3	6
Maine	2		2
New Hampshire	1		1
Vermont		1	1
Virginia		1	1
Georgia	2		2
Louisiana		1	1
Iowa		1	1
Michigan		1	1
Connecticut	1	2	3
Illinois		1	1
Maryland		1	1
North Carolina	1	1	2
Ireland	59	75	134
Germany	37	41	78
England	13	21	34
Wales	2	1	3
Scotland	2	3	5
Canada	1		1
Prussia	1	2	3
France	3	1	4
Holland	1		1
Sweden		2	2
Norway	1		1
Denmark		1	1
Poland	1		1
Austria	1		1
Nova Scotia	1		1
West Indies	1		1
Unknown	7	18	25
	328	347	675

V.

Row sent.		**Indigent.**	**Pauper.**		Total
Bergen	7	48	2	1	58
Essex	28	77	7	2	114
Hudson	20	73	5		98
Morris	13	45	6	10	74
Passaic	5	64	2	1	72
Sussex	2	21	4	1	29

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How sent.	Private.	Indigent.	Pauper.	Criminal.	Total.
Union	15	88	5	1	109
Warren	5	55	.....	1	61
Middlesex	5	.....	.....	.....	5
Monmouth	2	.....	.....	.....	2
Camden	1	.....	.....	.....	1
Mercer .. .	1	.....	.....	.....	1
Hunterdon	1	.....	.....	.....	1
Ocean	1	.....	.....	.....	1
New York	46	.....	.....	.....	46
Louisiana	1	.....	.....	.....	1
Georgia	1	.....	.....	.....	1
Nova Scotia	1	.....			
	156	471	31.	17	675 VI.

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Duration of Disease previous to admission.	Men.	Women.	Total,
More than 31 years		1	1
" " 33 "		1	1
" 34 "		1	1
" " 35 "	1	1	2
" 36 "		1	1
40 "	1		1
Unknown years	2	13	15
	328	347	675

GENERAL STATEMENTS IN REGARD TO INSANITY—ITS SEAT, NATURE, CAUSES. FORMS AND GENERAL PRINCIPLES OF TREATMENT.

The great importance of correct views; on the part of the community, in regard to the topics embraced under the above heading, is ample justification for frequent allusion to them in the annual reports of institutions for the insane, even although the authors may be liable to the remark or criticism of frequently repeating the same or similar views and illustrations. It will be remembered, however, that each recurring year brings, through interest and sympathy with unfortunate friends, a new set of readers of these documents, and that the more clearly they can be made to understand the subjects in question, the more fully will they appreciate the importance of well-adapted measures for their relief, and the more readily will they co-operate with the officers of institutions in carrying them out.

The primary and ever to be remembered starting point in all considerations of disordered faculties, as of their natural and healthy manifestation, is that they depend, in this life, directly on the brain. While the statement may by some be regarded as the veriest truism which, to the writer, it really is, yet, by others, it is, in some of its important aspects, so far doubted or, at least, disregarded in practical life, as to make it needful to frequently call attention to the fact, and dwell with earnestness upon its importance.

In discussing this branch -of the subject, we quote repeatedly from an eminent author, who states that the first condition required for the healthy action of the brain is a sound original constitution.

In this respect the brain is like every other part of the body. If it possesses from birth a freedom from all hereditary taint and imperfection, and has acquired no unusual susceptibility from injudicious treatment in infancy, it will withstand a great deal in after life before its health will give way.

But if, on the other hand, it either inherit deficiencies, or early mismanagement have entailed upon it an unusual proneness to morbid action, it will give way under circumstances

which would otherwise have been perfectly innocuous ; and accordingly, in conformity with this physiological view, it may truly be said that the most powerful of all causes which predispose to cerebral disease and mental derangement, is the trans-mission of an hereditary tendency, from parents to children, producing in the latter an unusual susceptibility to the same maladies under which the parents have labored ; and the existence of great irritability of the nervous system, as a permanent quality acquired in early life, or from the accidental occurrence of other diseases, which leave behind them an unusual susceptibility to external impressions.

By the hereditary transmission of insanity it is not meant that the actual malady is conveyed from parent to child, and that, after lying latent for some years, it will inevitably appear in the child, in whatever circumstances it may be placed.

The meaning is, simply, that some quality of brain is communicated to the offspring, rendering them more prone than other people to undergo cerebral disease, and thereby to become in-sane; and in consequence of which, causes will produce mental derangement in them, which in any one not so predisposed, would have proved perfectly harmless.

The next condition of health is a well balanced proportion of all parts of the brain, so that none shall possess an undue ascendancy over the rest. When it is recollected that organic size increases functional energy, and that the most prominently developed regions and parts of the brain are relatively most prone to habitual over-activity, we cannot fail to attach much import-ance to a just proportion, in the development of the different parts of the brain, and to believe that excess of endowment in some regions or parts, with corresponding excess of functional activity, is a very common predisposing cause of mental derangement.

The effect of exercise is to increase the action of the blood vessels and nerves of the part, and to augment its power of function.

A large supply of blood and a greater amount of nervous influence, are furnished to the part, and its whole condition is that of excitement. If the stimulus be withdrawn in time, and an interval of repose be allowed, strength and nutrition are improved, and the superfluous excitement gradually subsides. But if the intervals of action be either too short to admit of this subsidence, or the activity and excitement be too long kept up, or too frequently repeated, the vascular and nervous excitement go beyond the limits of health and the control of the will, and the part continues to act with disproportionate violence, till either by proper medical treatment, aided by the recuperative power of nature the excitement is subdued, or by its very continuance it brings on morbid changes of structure, which nothing can remedy, and which, of course, causes permanent derangement of the mind.

It should be added, however, that disproportionate development of one br more of the cerebral organs, is not invariably characteristic of the insane, for every part of the brain may become diseased, whatever may be its form, size or proportion, to other organs or parts.

Thus a small organ may be in a state of morbid activity, when a large one is sound ; and a large organ may be in a state of atony and its functions be altogether in abeyance, as happens constantly with the brain, considered as a whole, in the opposite states of delirium and dementia.

Another, but less frequently predisposing cause of disease of the brain and of consequent mental disorder, is insufficient exercise of the brain and nervous system. Examples of this are frequently found in individuals who have no call to exertion to gain the means of subsistence and no objects of interest on which to expend and exercise their mental faculties, and who consequently, sink into a state of mental sloth and nervous weakness, which not only deprives them of every enjoyment, but exposes them to suffering of mind and body from the slightest causes. Many examples of nervous weakness and debility of this kind are noticeable in society, the subjects being, generally, persons of fair capacity, who are confined for a length of time to an unvarying round of employment, which affords neither scope nor stimulus for one-half of their faculties. An illustration of this may be found in the case of persons of mature age and of active habits, who have devoted themselves closely to the details of business, and who retire suddenly from it in search of mental repose. In such cases, there being no literary, scientific or other pursuit to engage their attention and keep up the active exercise of the brain,—the latter will lose its health and vigor, and be attended by a premature decline of all the mental faculties.

Undue mental activity, in degree or duration, is also an infringement of the laws of health, and as such, predisposes and often excites cerebral and nervous disease.

Another and an important predisposing cause of cerebral disease and mental derangement, is the want of the due supply of properly oxygenated blood. When sent to the brain in this imperfect condition, it does not excite or support the action of that organ; its functions become impaired and there results great heaviness of the head, ringing in the ears, disturbed vision and inclination to sleep, with diminished or total loss of strength, and, in extreme cases, death itself. On the other hand, if the blood is too highly oxygenated, and consequently over-stimulating, an action bordering on inflammation may occur, which may speedily terminate in delirium or death.

Again, as the centre of sensation, the brain is constantly stimulated and acted upon by whatever is passing in every part of the body hence disease in any of the numerous organs and tissues

of the body has an influence upon some part, and particularly that part of the brain with which, physiologically, it is in most intimate relation and sympathy.

As a predisposing cause, therefore, bodily ailments, especially those in which the nervous system is much involved, exercise a powerful influence in developing cerebral disease and mental derangement. In addition to this, they frequently become serious complications in the treatment of the latter, serving to pro-long the duration of an attack.

EXCITING CAUSES.

The exciting causes of mental derangement are much more numerous and varied than those of the class just considered. These may properly be divided into *Local* and *Functional.* Prominent among the former, is external violence to the brain. This may, from fracture of the skull and in inflammation of the brain, be attended with violent delirium, while, in other cases, they may result in a chronic change, attended by dementia, or an extreme loss of mental power.

Cold or a very low temperature exerts a powerful and depressing influence on the mind and brain. Intense cold stupifies and induces many of the effects of intoxication.

Baron Larrey, who had a very wide field of observation, states that during the disastrous retreat from Moscow, numerous cases of insanity,, in every variety of form, and even a great many deaths, were produced by the continued action of intense cold upon the brain.

Captain Parry also states of two men who had been exposed to t temperature much below zero, without any adequate protection; that they looked wild, spoke thick and -indistinctly, and that it was impossible to draw from them a natural answer to any question. After a time the mental faculties appeared to re-turn with the returning reaction.

Excessive heat, and especially exposure of the uncovered head to the direct rays of the sun, is a frequent cause of injury to the brain, and consequently of mental derangement in an aggravated form.

Other instances might be named of causes acting locally or directly on the brain, as tumors, bony projections into the sub-stance of the brain, as the result of external injuries, the extravasation of blood in apoplectic attacks, &c.

Lastly, a local cause, somewhat similar in its mode of operation, though vastly more frequent in occurrence, and therefore more disastrous in results, is the excessive use of alcoholic stimulants in their varied forms. That these articles disturb and weaken the mind, even when taken in moderate quantities, can-not be questioned ; and when taken in excess will surely produce

such irregularity in the action of the brain as to indicate the presence of disease in that organ. This will be variously manifested by nervous tremors, headaches, fits of passionate excitement, delirium tremens, and, eventually, prolonged attacks of mental derangement.

FUNCTIONAL CAUSES OF INSANITY.

This is more correct than the term moral causes, heretofore, and even now, in common use, but which implies or supposes the existence of disease in the mind itself; which is wholly inadmissible. The term functional, has reference to disorder in the action of the organs of the brain, with which the faculties of the mind are connected, or through which they are manifested.

Physiologically it is easy to understand how functional exercise becomes an exciting cause of disease. To illustrate this by comparison with one of the organs of special sense. If the eye is used too long or too intensely in a bright light, its blood vessels and nerves are over excited and a sense of fatigue and pain results. With continued use, the excitement still increases, and the vessels become distended with blood, attended by all the painful symptoms incident to such a condition. If we now suspend the exercise the irritation gradually subsides and the healthy state returns; but if we continue to look intently, or resume the employment before the eye has regained its natural state by repose, the irritation becomes permanent, and disease, followed by weakness of sight, or even blindness, may ensue. In the same way, if there be a part of the brain, by means of which the mind feels the emotion of fear, it is easy to conceive how violent and long continued action of the part should first induce functional aberration, with unusual energy of the corresponding feeling, and ultimately give rise to permanent disease, or even such change of structure in the organs as to render its healthy action forever after impossible.

The mental condition attending such a process would, at first, be extreme anxiety, apprehension and terror, from inadequate causes, and corresponding to the excessive action in the physical part or organ.

But if the morbid change was so great as to impair the structure, a suppression of the feeling of fear, and consequent in-capacity of acting with caution and prudence, would be the result. .

Physiologically speaking, we would say that the *danger is* the natural object which stimulates the organ of cautiousness just as light is that which stimulates the eye; and that the over-excitement of function thus produced, has deranged the healthy action of the organ, or destroyed its functional influence or capacity.

This principle may be applied to any and all the cerebral

organs and their corresponding faculties, and thus explain, in brief terms, the mode of action of the large list of exciting causes through the single and combined agency of which the cerebral organs are induced to take on disease, and the corresponding faculties become deranged. With this view of the physiology of the brain, that is, that its regions and parts, hold uniform and definite relations to the several classes and individual faculties of the mind, and that these relations exist and are influential in disease as in health, the mode of operation of the causes of insanity become so much simplified as to be easily understood. It may be stated, however, in regard to many or most of the exciting causes of mental disorder, that they act with much greater force and effect, when, through their agency, rest by sleep is prevented, or materially disturbed, for considerable periods. Of course they are also rendered greatly more effective through the influence of a predisposition to the disease, from any of the causes heretofore named, as giving a tendency thereto.

FORMS OF INSANITY.

Insanity varies in its forms and symptoms according to the nature and number of the faculties involved, also, according to the nature of the morbid action in the physical part, whether characterized by increased, diminished or perverted action.

If the morbid action is located in and confined to the anterior .region of the brain, or that devoted to the manifestation of the intellectual faculties, perceptive and reflective, with increased activity in the circulation, the derangement will be shown by increased activity and want of control of the observing and reflecting faculties.

If the disease affects the region of the feelings and higher sentiments, the faculties in this group, as hope, fear, pride, love of praise, firmness, conscientiousness, &c., will at once be disturbed and become preternaturally excited, depressed or perverted, according to the character of the morbid action in the physical part. If the region of the selfish feelings or animal propensities be primarily affected, the reason may be comparatively correct in regard to ordinary subjects and relations, but the animal appetites and passions will be greatly excited, and the unfortunate subject, however elevated in sentiment and feeling he may have been, may become profane, noisy, violent and destructive, and a slave to habits of the grossest sensuality.

In some cases, as in general mania, the whole brain, or its various regions and parts are simultaneously affected and all the powers of the mind suffer alike.

the patient raves violence, blasphemy and folly by" Natural feeling, moral restraint and sound judgment are all upset, and

turns, or passes in the course of a few hours through all the phases of the highest passion and rage to the deepest dejection and melancholy; and it is in such circumstances that a remark of Esquirol is especially exemplified, that mania, monomania, melancholia and dementia succeed and alternate with each other, the disease itself remaining the same."

Melancholia is the designation given to a state of mental derangement, characterized by depression of feeling, but resulting from a peculiar combination of disordered faculties, rather than from any specific or peculiar form of diseased action, as is often supposed.

When the morbid affection is limited to one or two of the cerebral organs it is termed monomania, but in most cases the disease extends very soon and involves several organs, thus changing the character of the mental symptoms from disorder of one to embrace several faculties.

The mental weakness resulting from chronic disease of long standing, whatever may be its precise form, is known as demens regarded as incurable. Should it occur, however, as sometimes happens, during a period of temporary langour, after high or exhaustive excitement, the mental Faculties will be re-stored, with the returning vigor of the brain and general system.

Lastly, it may be stated that by far the larger number or pro-portion of cases of insanity, particularly those of long standing, are *so mixed* and *modified* in form, on account of the peculiar *combinations* among the diseased organs and deranged faculties involved, that it is no more practicable to classify, in an intelligent manner, the inmates of an asylum for the insane, than to do so, with an equal number of sane people outside of it.

TREATMENT OF INSANITY.

The treatment of -insanity is properly divided into medical and moral.

In regard to the first it may be said that there are no specific remedies or medicines in use, but a resort is had to all the usual remedies for correcting and allaying morbid action of whatever kind, and whether found in bodily organs in general or in connection with the brain and nervous system.

With a view to ascertain the real state of the patient, as a subject for treatment, careful inquiry is made of friends or those who bring them to the institution, in regard to their previous health and .habits, also in regard to the attack of derangement—its duration, causes, symptoms and progress, and in reference to the treatment received before admission. In a pretty large number of cases, some alterative and laxative treatment is found necessary in the beginning, and after this, tranquilizing and tonic

remedies, to allay nervous irritability, improve digestion and secure sleep are indicated.

As nutrition and rest by sleep, in this, as in other morbid affections, are the most important agencies for recuperation, so the main purpose of medical treatment, is directly or indirectly, to secure these objects. Next in importance to the medical, is the moral treatment of the insane, and in not a few instances, the latter is of equal importance with the former.

By removal from home and the associations connected with the attack; to a well arranged and appointed institution, proper hours for exercise and rest are secured, regularity in the hours for taking meals, employment and amusements calculated to withdraw the attention from currents of thought and feeling that have been injurious are resorted to, and, in due time, if the disease is curable, the morbid excitement and irritation of the brain is allayed and the natural balance and power of the mind is re-stored to the individual.

In other cases, in which recovery is not expected, in consequence of the chronic character of the disease, the institution becomes a well adapted home for securing to the unfortunate subject, years, or a life of tranquil rest and enjoyment, denied to him in any and all other situations.

AMUSEMENTS.

We have paid as much attention as circumstances would permit, to the subject of amusements, for the members of the household during the last year. In addition to frequent musical entertainments, instrumental and vocal, including a brass band, formed of the employees of the institution, the large amusement room has been brought into frequent use in various ways, viz : for theatrical representations, for tableaux, for lectures, and for dancing, one evening in the week.

Various games, such as are usual within doors, as billiards, cards, chess, dominoes, &c., have been resorted to in the different wards.

CHAPEL SERVICE.

Religious services have been held regularly in the Chapel during the past year, and have been highly appreciated by the members of the household.

ACKNOWLEDGEMENTS.

From the Hon. F. S. Lathrop, of Madison, N. J., President of the Board of Managers, we have received a billiard table, to be used in one of the wards of the institution.

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From Miss D. L. Dix, thirty-six volumes of well-selected books for the patients' library.

From Mrs. Marsh, of Brooklyn, N. Y., and Mrs. Revere, of Morristown, N. J., various reading matter; and from Mrs. David Canfield, of Dover, N. J., plants and a large collection of papers. From Mrs. Neubert, New York, Harpers' Monthly. for two years. We have also received gratuitous copies of the Jerseyman, Chronicle and True Democratic Banner, Morristown ; Dover Index and Iron Era, of Dover; Star of the Cape, Cape May; and Perth Amboy Gazette, Perth Amboy, N. J.

In addition to the above, the institution takes about twenty copies of the leading religious weekly newspapers, also various other monthly and weekly publications ; while the officers and employees take a large number of daily and weekly secular papers, which are circulated through the wards of the house.

To the resident officers and to many faithful and efficient employees, who have co-operated with me in conducting the affairs of the institution, I am under obligation, and would express due appreciation of their aid.

To the members of the Board of Managers of the Asylum I am under renewed obligation for their persevering interest in and attention to the welfare and progress of the institution, and for much courtesy and kindness received at their hands.

Respectfully submitted,

H. A. BUTTOLPH.

State Asylum for the Insane,
Morristown, N. J., Nov. 1, 1878.

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FOURTH ANNUAL REPORT OF THE

MANAGERS AND OFFICERS OF THE

STATE ASYLUM FOR THE INSANE,AT

MORRISTOWN, N. J.

OCTOBER 31, 1879.

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OFFICERS OF THE ASYLUM.

MANAGERS.

FRANCIS S. LATHROP, Madison,

BEACH VANDERPOOL, Newark,

SAMUEL LILLY, M. D., Lambertville,
ANTHONY RECKLESS, Red Bank,

GEORGE A. HALSEY, Newark,

WILLIAM G. LATHROP, Boonton,

JOHN S. READ, Camden,

JOSEPH D. BEDLE, Jersey City,

SAMUEL S. CLARK, M. D., Belvidere,

HIRAM C. CLARK, Newton.

OFFICERS OF THE BOARD OF MANAGERS.

PRESIDENT, FRANCIS S. LATHROP, Madison
SECRETARY,
SAMUEL LILLY, M. D., Lambertville.
TREASURER,
EUGENE VANDERPOOL, Newark.
RESIDENT OFFICERS.
SUPERINTENDENT AND PHYSICIAN,
H. A. BUTTOLPH, M. D., LL. D.
ASSISTANT PHYSICIAN,
EDWIN E. SMITH, M. D.
SECOND ASSISTANT PHYSICIAN,
THOMAS M. LLOYD, M. D.
STEWARD,
MARTIN B. MONROE.
MATRON,
MISS MARY TABOR.

1879

MANAGERS' REPORT.

To His Excellency George B. McClellan, Governor of the State of New Jersey.

The tenth section of the supplement to the "Act to provide additional accommodations for the insane of this State," approved April 13th, 1876, makes it the duty of the Managers of the State Asylum for the Insane, at Morristown, to submit to your Excellency, annually, a report detailing the past year's operations and actual state of the Asylum.

In obedience thereto the Managers would respectfully submit the following

ANNUAL REPORT.

Under the provisions of an act approved March 13th, 1879, the number of Managers was increased to ten.

In pursuance thereof, Hon. Joseph D. Bedle, of Hudson county; Samuel S. Clark, M. D., of Warren county, and Hon. Hiram C. Clark, of Sussex county, were appointed Managers.

In due time these gentlemen presented themselves, were cordially welcomed, and took their seats in the board.

Their colleagues desire to acknowledge the very material and valuable aid rendered by them in the performance of their duties. The weekly visits of inspection have been made by the Managers, and the results, with such suggestions for improvements as were deemed proper, were at each visit recorded in the Managers' Visiting Record.

These suggestions (but few being, happily, called for) have been cheerfully. carried out by the officers.

The uniform good order preserved, the scrupulous cleanliness found in all parts of the institution, the general good health and comfort enjoyed by the inmates, have been a constant subject of remark.

The reports of the Superintendent, Treasurer and Steward of the Asylum, hereto appended and submitted, give in general and in detail the operations of the institution for the past year.

The Superintendent's report will show the number of patients in the house at the commencement and close of the fiscal year, the number

admitted and discharged, the number recovered, improved, unimproved, died, &c.

The report also makes valuable suggestions and recommendations for the future improvement of the Asylum grounds out-buildings, reservoirs, &c., &c.

The remarks of the Superintendent on the subject of the " Physiology of the Brain," and the practical lessons therefrom drawn as they are by Dr. Buttolph, who has made the study and treatment of insanity the work of his life, deserve the most careful consideration of all who are interested in the care and cure of the insane.

The Treasurer's report gives the state of the finances of the institution in a full and clear manner. It will be seen from this report that a small balance remained to the credit of the Asylum at the close of the fiscal year. This will be required and is available for the cur-rent expenses until the next quarterly payments from the several counties and the State are due.

It is believed that with close economy and the absence of any ad-verse legislation, that the current income will be sufficient to meet the current expenses.

The reports of the Superintendent and Steward embody a statement of the improvements made to the grounds, furniture, &c., of the Asylum.

That of the Steward gives a full account of the work done on the farm, the products derived from its operations, also the result in detail, which is also generalized, of the annual appraisement of the personal property belonging to the Asylum, made by the Steward and aided by George W. Esten, Esq., and Hon. George Dayton, appointed by the Managers, in pursuance of law for the purpose, and attested by their oaths.

The inventory shows the amount of the personal property to be ninety-eight thousand four hundred and thirty-nine dollars and twenty cents ($98,439.20), a slight increase over that of last year, it being for the furniture and other articles purchased.

The improvement of the grounds have progressed as fast as the means at the disposal of the officers will admit.

Much yet remains to be done to complete the grading of the grounds, the planting of trees, shrubbery, &c.

The construction of an additional storage reservoir for water, the building of a barn and other needed out-buildings are very desirable..

The Managers would simply suggest that an appropriation to the extent of at least twenty-five thousand dollars ($25,000) would advance the needed works.

The Managers, however, propose to leave the consideration of this subject to the wisdom of the proper legislative authority for such action as they may deem proper.

Our acknowledgments are due and hereby expressed to the Superinten-

dent, the First and Second Assistant Physicians, the Treasurer, the Steward, the Matron, to the attendants and other employees of the institution, for their uniform courtesy, and the zeal, industry and efficiency with which their several duties have been performed.

The intercourse of the Managers with one and all has been a source of pleasure and profit gratifying to mention.

Respectfully submitted,

FRANCIS S. LATHROP, BEACH
VANDERPOOL, SAMUEL
LILLY, ANTHONY
RECKLESS, GEORGE A.
HALSEY, WILLIAM G.
LATHROP, JOHN S. READ,
JOSEPH 11 BEDLE,
SAMUEL S. CLARK,
HIRAM C. CLARK,

Managers.

Dated " State Asylum for the Insane, at Morristown, N. J.," November 1st, 1879.

TREASURER'S REPORT.

To the Board of Managers of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN :—The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from November 1st, 1878, to October 31st, 1879, inclusive.

DR.

Balance on hand, November 1st, 1878 .	$3,575 96	
To amount received from State Treasurer for county patients.	21,489 57	
To amount received from sundry counties for county patients	83,165 24	
To amount received from Steward for private patients	32,733 95	
To amount received from Steward for hides, fat, old iron, &c.,	4,204 64	
		$145,169 36

CR.

By amount paid M. B. Monroe, Steward's orders	$140,418 20	
By balance in Treasurer's hands	4,751 16	
		$145,169 36

EUGENE VANDERPOOL,
Treasurer.

Dated, "State Asylum for the Insane, Morristown, New Jersey," November 1st, 1879.

We hereby certify that we have examined the Treasurer's accounts, and compared the same with his books and vouchers, and find them in accordance with the above statement, correctly stated and balanced.

WM. G. LATHROP,
GEORGE A. HALSEY, JOHN S. READ, HIRAM C. CLARK.
Auditing Committee.

STEWARD'S REPORT. *To*

the Board of Managers :

GENTLEMEN ; I t accordance with the requirements of the statute, I have the honor to submit the accompanying statement of the receipts and disbursements of the Asylum for the official year closing October 27th, 1879.

It was considered necessary to continue the improvement of the " Farm and Garden" during the past season to such extent as our means would permit, in order to bring into use new fields and add to the extent of the farm, and to bring the fields now cultivated up to a proper standard, which has added to the expenses of that department.

Reference to the "appendix" will show the appraised value of the products of the farm, garden and stock raised during the past year, to be six thousand one hundred and forty-six dollars and seventy-five cents ($6,146.75), all of which is for the use of the institution.

The expenditures for the " Farm and Garden," aggregating the sum of four thousand five hundred and fourteen dollars and seventy-three cents ($4,514.73), show a decrease in the expenses as compared with the previous year, and a surplus of one thousand six hundred and thirty-two dollars and two cents ($1,632.02), above the expenses of the present year.

The disbursements for "Improvement of Buildings" include the cost of erection of temporary shelters for cows and other stock, the improvement of slaughter house and other out-buildings and dwellings, which work was only partially accomplished last year. The expenditures for improvement of grounds, grading, &c., were made this season entirely from the current funds of the institution, the commissioners having aided that work the previous year by an appropriation from the funds in their hands.

In compliance with the law, herewith is also submitted the fourth annual appraisement of personal property in and about the premises of the Asylum, the estimated value of which is ninety-eight thousand four hundred and thirty-nine dollars and twenty cents ($98,439.20),. an increase over the appraisement of 1878, owing to additional purchases for this account, for the accommodation of the increased number of patients, as new halls were opened for their use.

In the performance of this very responsible and tedious work, I

was assisted by Mr. George W. Esten, of Morris county, and the Hon. George Dayton, of Bergen county, whom your board appointed to act with me ; and I desire to express to them my appreciation of their valuable assistance, and to your board for the selection of competent appraisers.

To the members of the Board of Managers, and to Dr. H. **A.** Buttolph, the Superintendent, I am under many obligations for valuable suggestions and advice, and for much kindness received at their hands.

Very respectfully,

M. B. MONROE,

/Steward.

Dated, " State Asylum for the Insane, at Morristown, N. J.," October 31st, 1879.

1879

Steward's Annual Abstract of Accounts for the year ending October 27th, 1879.

DR.			CR.	
To balance October 28th, 1878,			Amusements	
To amount received for board, clothing and incidental expenses of private patients...	$3,575	96	Books and stationery Clothing	
To amount received for board, clothing and incidental expenses of county patients...	32,733	95	Farm and garden Fixtures Flour	
To amount received from State Treasurer for county patients	83,165	24	Feed Fruit Freight	
To amount received for sundries, rags, &e			Furniture Fuel	
To amount received for postage stamps		115 08	Funeral expenses. Grounds and grading	
To amount received for fuel furnished employees		37 88	Harness, wagons, &c Improvement of buildings	
To amount received for hides and tallow		232 92	Incidentals, including brooms, brushes, pails, waste, soap, combs and brushes, razors and strops, telegrams and battery, boiler-house supplies, &c., &c	
To amount of voucher No. 79, not collected..		3,818 76 4 91	Insurance Light, including gas used as fuel in laundry and for cooking	
			Laundry Medical supplies Newspapers Provisions and groceries Postage Petty current expenses Refunding Repairs Smith and wheelwright Stock Wages	
				$140,423 11
			Balance	
	$145,174 27			$145,174 27

Respectfully submitted,

M. B. MONROE, *Steward.*

State of New Jersey, Morris county, ss. Martin B. Monroe, Steward of the "State Asylum for the Insane," being duly sworn, upon his oath saith, that the foregoing is a correct and true abstract of the receipts and expenditures for the year ending October 27th, 1879, and

that all the purchases for said Asylum were made by him personally for cash and not on credit or time, and every voucher for money paid was duly filled up and signed by him and delivered to the person named therein at the date thereof; and that the accounts of employees and patients have been kept and settled by him as provided in the act entitled "A further supplement to an act entitled "An act to provide additional accommodations for the insane of this State," approved April 13th, 1876.

M. B. MONROE,
Steward.

Sworn and subscribed before me this twelfth day of November, A. D. 1879.

GEO. WALKER JENKINS,
Notary Public of New Jersey.

1879

SUPERINTENDENT'S REPORT. *To*

the Managers of the Asylum :

GENTLEMEN :—In compliance with the law for organizing the Asylum, the Superintendent submits his annual report :

			Tota
Patients in the Asylum October 31st, 1878			480
Patients received since to November 1st, 1879			164
	78	86	
'Under care during the year			644
	305	339	
Discharged recovered			**33**
Discharged improved			39
Discharged unimproved			7
Died			38
	22	16	
Discharged and died			117
	57	60	
Remaining October 31st, 1879			**527**
	248	279	

Of this number there were	Count	Private.	Total
		Women	Total
Whole number received from opening of Asylum, August 17th, 1876, to November 1st, 1879	406	433	839
Discharged recovered.			90
	51	39	
Discharged improved			108
Discharged unimproved			19
Died			95
	50	45	
Whole number discharged and died			312
Whole number remaining			527
	248	279	
Total discharged and remaining			839
	406	433	

The number of patients at the close of the year, October 31st, 1878, was four hundred and eighty—two hundred and twenty-seven men and two hundred and fifty-three women.

1879

The number received during the year, viz., from November 1st, 1878, to October 31st, 1879, inclusive, was one hundred and sixtyfour—seventy-eight men and eighty-six women.

The number of cases under treatment during the year was six **hun**dred and forty-four—three hundred and five men and three hundred and thirty-nine women.

Of the one hundred and seventeen discharged during the year, thirty-three were considered as recovered, thirty-nine as improved, seven as unimproved, and thirty-eight died.

Death occurred in fifteen cases from general chronic exhaustion of the system ; in six from epilepsy ; in seven from general paresis of the insane; in five from exhaustion of acute mania; in one from congestion of the lungs ; in one from congestion of the lungs and brain ; in one from chronic disease of the chest with empyema, or collection of matter; in one from consumption, and in one from enlargement of the liver and spleen.

By reference to the causes of death, it will be perceived that in a large number or proportion of cases, (indeed, in all but six or eight,) death occurred from chronic disease of long standing, in which the bodily powers gave way, from gradual decline in strength.

A considerable number of the cases discharged as improved, would perhaps, by some, have been regarded as recovered, and so reported.

The general health of the inmates of the institution was very good during the year, and at its close.

Work on the farm and in the garden has been carried forward successfully during the year, and with fair results, as the list of products from each will show.

Very good progress has also been made in the work of grading and improving the grounds, in view of the fact that no appropriation was made by the Legislature for that object. In addition to the work of completing several large plane or level plots of ground, by seeding and laying down, as lawn surfaces, about five hundred yards in length, by four feet high and two feet thick, of base wall for terraces has been laid and the same extent of terrace work, averaging twelve feet high, has been prepared and carefully finished by sodding. The base wall, and a large portion of the terrace work done, was in the rear of the building, which has greatly improved the general aspect of the grounds in that direction.

No progress has been made, during the year, toward the completion of the central avenue for approaching the building in front, which with the other work projected, in that direction from the building, is regarded as highly important.

Another subject of equal if not greater importance than the state of the grounds, is the construction of a large reservoir for storing water, which was spoken of, and urged upon the attention of the Legislature, in the report for the year 1878. My views in regard to that subject,

1879

both as to the necessity for the work and the manner of doing it, re-main unchanged. Indeed, the experience of the last season, several months of which have been unusually dry, has but confirmed the impression, that additional storage capacity for water. is absolutely required for the increased safety of the building and comfort of the inmates. The amount of expenditure for the purpose would not exceed five thousand dollars, a small sum to be appropriated to secure an object so important. With a continuance of receipts for the board of patients in future, as heretofore, the institution can annually make some progress in laying out and improving the grounds about the , building, though of course it would be a great advantage if the work could be accomplished more rapidly by aid of an appropriation from the State treasury.

EMPLOYMENT OF THE INSANE.

Much has been said and written in regard to the employment of the insane in institutions for their care and cure. For a considerable number, especially of those who have been accustomed to engage in manual labor, healthful employment is considered advantageous, indeed, in some instances, quite essential to the restoration of the physical health and the accustomed balance and tranquillity of the mental faculties. The difficulty to be overcome relates, very often, to the kind and degree of labor or exercise best adapted for the benefit of the individual, and that is least likely, from any cause, to do harm. During the earlier stages of the disorder, and while it is characterized by symptoms of high excitement, labor requiring considerable effort may prove injurious, by its tendency to increase rather than allay vascular and nervous excitement. The large class of persons who are or may be benefited by labor, are those in whom the disease has become more or less chronic, who are restless in the day and morbidly wakeful at night. In such cases the circulation is equalized by the muscular effort, thus diverting or drawing of the over supply of blood to the - brain and restoring the healthy balance, in activity, between all the organs and functions of the body. In regard to the profit or advantage of such labor to an institution, it should be remembered that it is comparatively small, in consequence of the short time usually made, and also from the fact that such persons require the constant presence and oversight of hired attendants, to secure useful results. While on *this subject,* it may be natural to allude to the fact that no proper comparison can be made of the number of the insane who can be employed in American and foreign institutions, particularly in the State asylums of the former and the county or pauper asylums of' the latter. This is accounted for by *the* difference in condition and customs of the mass of the people in these countries. While the inmates of. American institutions are equally industrious, naturally, as those in foreign,

they are quite apt to associate the idea of wages or income with labor, and to refuse to perform it if payment is not made or promised. On the other hand, the poor or pauper insane in foreign asylums have, all their lives, been subordinate in their conduct and feelings to the superior classes with whom they have associated or lived, and hence they yield a ready obedience to the suggestions of officers of institutions, in regard to the employment provided for them.

Female patients engage in useful employment more largely than male, in part because women are naturally more industrious than men, and in part, also, because there are a greater number or variety of employments open for their acceptance in and about institutions for the insane.

OCCUPATION.

Under the general head of occupation may be embraced everything relating to the daily life and acts of an individual, except employment or labor. It includes, therefore, exercise taken in various ways, as in walking, riding, billiards, ninepins, croquet, base and foot ball among the more active games, while among the more passive or sedentary occupations, may be mentioned reading, writing, chess, checkers, cards, &c., &c.

In addition to these, and more properly classed as entertainments or amusements, may be mentioned musical concerts -instrumental and vocal, lectures, tableaux, dancing, theatrical representations, &c. All of the above named sources of bodily and mental occupation have been resorted to by the members of our household during the past year, and have been attended, as usual, with beneficial effects. It may be added, that we have been exceptionally fortunate in being able to provide musical entertainments by our own people—having a brass band of ten pieces, which often plays on the grounds near the building at evening, an orchestra numbering twelve pieces, including a portion of the band, and a very satisfactory choir for the chapel service, led by an organ and a cornet. Among the. selections for the stage exercises, in the amusement room, no performance gives greater or even so much pleasure to a large majority of the audiences, as plays and music by negro minstrels. This kind of performance is an appeal to the sense of the mirthful or ludicrous, a primitive tendency, or more properly a faculty of the human mind, the activity of which does as much to secure the natural resiliency or elasticity of the feelings, and thus protect them against dullness and decline, as any other feeling or sentiment of the mental group. I regard the statement of this fact, so constantly verified by observation and even by personal experience, as one of great practical value to all who desire to become permanently connected with the care of disordered minds. By this I do not, of course, mean that persons thus engaged may, in any circumstances, wantonly amuse themselves by the eccentricities of the people under

their charge, but that a more elastic and tranquil state of feeling, on their part, as well as better health, will be maintained by them, if they are so mentally constituted as to be able to see and appreciate the humorous side of the little as well as the large occurrences observed in their daily and hourly duties. I may add, further, that persons of this mental balance or tendency are, even in life-inside, of asylum walls, more hopeful, cheerful and successful than those of an opposite character.

1879

Nativity.	Men.	Women.	Total.
New Hampshire	1	1	2
Vermont	1	1	2
Virginia		2	2
Georgia	2		2
Louisiana		1	1
Iowa		1	1
Michigan		1	1
Connecticut		4	5
Illinois		1	1
Maryland		.1	1
North Carolina	1	1	2
Ireland	68	89	157
Germany	45	56	101
England	19	24	43
Wales	2	2	4
Scotland	2	4	6
Canada	2		2
Prussia	1	2	3
France	3	2	5
Holland	2		2
Sweden		2	2
Norway	1		1
Denmark		1	1
Poland	1		1
Austria.	1		1
Nova Scotia	1		1
West Indies	2		2
British Honduras	1		1
Switzerland		1	1
Unknown	7	18	25
	406	433	839

How sent.	Indigent.	Pauper.	Criminal.	Total
Bergen	59	4	1	72
Essex	77	7	2	131
Hudson	92	5	1	131
Morris	53	6	10	85
Passaic	74	3	1	86
Sussex	25	4	1	34
Union	108	9	1	137
Warren	62		2	71
Middlesex				
Monmouth				

1879

Duration of Disease previous to admission.	Men	Women.	Total
More than 34 years		1	1
35	1	1	2
36		1	1
40	1		1
45		1	1
Unknown years	4	14	18
	410	447	857

FORMS FOR THE ADMISSION OF PATIENTS.

So important is it that the friends of patients and the public generally have correct information in regard to the preliminary forms for the admission of patients to the institution ; also, of the general mode of managing the insane before and after admission, together with suggestions in regard to their correct care and the cost of support in the Asylum, that I copy particulars on these points from a former report.

PRIVATE PATIENTS.

For the admission of this class, three forms are used—a certificate of insanity, by a regular physician, made under oath before a magistrate; a written request from some friend for their admission, and a bond for their support, removal, &c., signed by two responsible persons.

POOR AND INDIGENT PATIENTS.

For the admission of poor or pauper patients, application should be made by the overseer of the poor of the township or ward of the city where they reside, to a Judge of the Court of Common Pleas, and for one of the indigent class (a person of some, but small means), by a friend, to the same officer. If satisfied on inquiry that the person for whom application is made is insane, and that he is entitled, under the law for such cases (sections twenty and twenty-one of the act to organize the Asylum), to receive support at the county's expense in the Asylum, the judge issues an order to that effect. This order is to be signed, approved by the Chosen Freeholder or Freeholders of the township or ward of the city of his residence, and then deposited in the office of the County Clerk, who files the same, as notice to county authorities that an expense has been incurred.

The Clerk sends a copy of order, duly authenticated by his signature and official seal, to the Superintendent of the Asylum, with the patient, as a voucher for his admission and support at the county's expense.

Copies of all these " forms " are given in the appendix to this

report, and printed blanks for use will be furnished on application to the Superintendent of the Asylum.

NOTICE TO PATIENTS OF THE PURPOSE OF FRIENDS.

Insane persons should generally be informed of the decision of friends to place them in the institution before leaving home for that purpose. Should this, however, be omitted, from motives of expediency of any kind, it is important for the welfare of patients and for the success of their treatment after admission, that great care be taken that no false or exaggerated statements be made to them in regard to the nature and objects of the institution or the ability of the medical officers to give them certain and speedy relief.

When persons find in this preliminary stage of the proceedings that they have been treated with frankness and truth by their family and friends, it is not difficult for the officers and employees of the Asylum to secure and maintain their confidence, which is always an important element of success in treatment.

STATE PROVISION FOR THE INSANE.

The provision here made for the care and cure of the insane is most ample in extent and excellent in character, and is fitting evidence of the humanity and liberality of the State towards its insane citizens, who are, in an especial sense, from their helpless condition, its own proper wards.

The building will easily accommodate eight hundred patients, with the necessary officers and attendants, and is architecturally arranged to admit of the most thorough classification of the inmates.

The facilities of such an establishment when well organized and in working condition are *immeasurably* superior to any that can be sup-plied by friends or by city or county authorities, and therefore should be availed of in behalf of all those, who, through loss of reason, are entitled to its benefits.

COST OF SUPPORTING INSANE PATIENTS.

In estimating the advantages and cost of a State system for the care and treatment of insane, we bring into view not only the extensive and perfect architectural arrangements made available for the purpose and provided without charge, for the use of individuals, but the cur-rent cost for the support of all classes of insane, which is, through its agency, so much lessened that there can be no question as to the expediency on the part of friends and local authorities of adopting and using it, to the full extent that it is offered.

It should be understood, however, by all parties who have occasion

to provide for the support of patients in the institution, that a liberal system, avoiding alike extravagance and waste, is not only more humane, because more comfortable, but is even the most economical, because more likely to result in the recovery of reason, thereby insuring against the necessity for a life-long support. At this point arises the practical question, of interest to all parties, as to what is the correct principle or standard for keeping insane people of all classes. To this inquiry I would answer, that within reasonable limits they should be supplied with any and all agencies and means best calculated to secure their recovery to reason, if curable, and their welfare and comfort, if otherwise. This principle or standard is the only one that comports with the enlightened liberality of the State in furnishing the building, and that is consistent with the claims of the insane for the best treatment, as based upon it.

To the officers concerned in the organization and working of the institution, and particularly to the medical officers, should be assigned the duty of devising and carrying out in detail, the system that, judging from experience, is best adapted to secure with the greatest certainty the objects intended.

PHYSIOLOGY OF THE BRAIN.

Strange as it may seem, yet it is no more strange than true, that correct knowledge of the physiology of the brain, or knowledge derived from systematic observation of its healthy functional action, **is,** at best, and in the minds of a few persons only, in its infancy ; while with a still larger number, including many teachers of anatomy, physiology and mental philosophy, a correct and proper idea of its use, as connected with the manifestation of the mental faculties, has not been admitted as a practical and important truth.

The reason for the seemingly incredible delay in ascertaining and acknowledging the true physiology or healthy function of the brain has arisen, apparently, from two sources or causes : first, that in this, as in many other bodily organs, its function or physiological use, is not revealed by the minute anatomy of the tissues and parts of which it is composed ; and, second, because the large proportion of eminent men in the departments of physiology and mental science, and who have influenced the belief and modes of thinking of the past and present generations, have, through the influence of prejudice against the only correct method of obtaining information of its functions during life, denied or ignored the results, which comparatively few others, but equally eminent observers, have reached.

Starting then with the assumption or statement which few will deny or question, that a full and correct knowledge of the physiology of the brain cannot be ascertained from the anatomy of its minute structure, by vivisection, or mutilation during life, nor even by pathological

inquiries after death, the question recurs, as to *how* a knowledge of the uses or functions of the different parts of the brain is to be obtained. The view taken by the writer (though not in any sense original with him) is, that the office of the brain is two-fold : first, that it is the centre of sensation and nervous energy to all parts of the body, and as such, is stimulated and acted upon by whatever is passing in or through it; and, second, that it is the seat of thought and feeling.

A knowledge of the former, or its connection with the body as the grand centre of sensation and energy, can be inferred and established by its anatomical connections with the body and its parts, and by the observation of symptoms in disease, acute and chronic.

A knowledge of the latter use of the brain, or as the seat of thought and feeling, it is claimed, can only be obtained by the method adopted by Gall, the eminent German physiologist. This system, developed by many years of the most careful observations and comparison, teaches that the office of the periphery or surface of the brain, to an unknown depth, is to develop and manifest the mental faculties, both of thought and feeling, and that the faculties are strong and active in proportion to the size and quality of the parts of the brain substance as influenced by health, and the temperament of the individual.

A more extended and definite statement of the doctrine of Gall, or Phrenology, is :

" 1. That the mind is endowed with a plurality of innate faculties. ".2. Each of these faculties manifests itself through the medium of a particular organ.

" 3. The organs of the mental faculties have their seat in the brain—the brain being a congeries of these organs.

" 4. The power of manifesting each faculty bears a constant and uniform relation, other things being equal, to the size of the organ of each faculty.

" 5. The outer surface of the skull and head corresponds so nearly with the form of the brain, that the seat and relative size of the several cerebral organs, can be ascertained from an examination of its outer surface."

The facts and inferences of this system as stated, being true, in regard to the physiology of the brain, the great importance of the discovery will be appreciated, as it furnishes the basis of a clear, full and intelligible system of mental science or philosophy.

By its aid we see most clearly that the disordered states of the mental faculties are only symptoms of disease of the organs or parts of the brain with which they are associated. While we judge of the nature or character of the disease, not only by the mental symptoms, but also by such physical symptoms as indicate the condition of the system in general, and of each of the bodily organs in particular, that may be in a state of suffering.

Here, then, is a rational and practical basis for the medical, mental

and moral treatment of each and every case of insanity that may occur.

In this connection, I may add, that under this view of the anatomy and physiology, all the light gained in regard to the results of disease of the brain in cases of insanity, and shown by pathological or post mortem inquiries, can be as fully improved or utilized as by any other view of the physiology of that organ.

It should be remembered, however, in the same connection, that the light obtained by pathological inquiries, or the results of disease of the brain tissues, come to the knowledge of the physician in any given case after his patient is dead, and cannot, therefore, be utilized in his treatment. It is claimed, however, that by the aid of microscopic examinations of many diseased brains that valuable pathological results will be accumulated, which is undoubtedly true, at least, as a demonstration of the existence of morbid results in all cases of death from disease of the brain with which insanity has been associated, though this fact has for a long time remained unquestioned. Is it not possible and very probable, however, that the *practical or therapeutic* value of the knowledge of such morbid conditions of the brain, after insanity has run its course, is of minor importance compared with the knowledge of the location of the disease as derived from the mental symptoms in the early stages, and the nature or kind of morbid action prevailing in the brain at its commencement and during its progress toward recovery, or to the death of the subject? It may be said, also, that while the morbid action of the brain may be precisely similar in the beginning of two cases, the results, in the changed condition of the two brains may differ widely, according to the stage of the disease when death occurs; the latter, or period of death, being influenced by causes or complications differing in one case from the other.

In support of the views represented as to the physiology of the brain, as taught originally by Gall, and afterwards by Spurzheim, Combe, and others, in Europe, and by the Fowlers, Sizer, Caldwell, &c., in this country, I quote from several eminent physicians and scientific men in regard to its truth and wide application in practical life; and particularly in the care and treatment of the insane.

The quotations from these distinguished men and authors must necessarily be few and brief to be consistent with the limits of the present discussion.

As a beginning of such quotations, it seems fitting that the first should be from Francis Joseph Gall, M. D., author of " The Anatomy and Physiology of the Nervous System in General, and of the Brain in Particular," 4 vols., with atlas of one thousand plates, and on the "Functions of the Brain and of Each of the Parts," 6 vols., &c. " I gathered," says Gall, " innumerable facts in schools and in the great establishments of education ; in the asylums for orphans and foundlings ; in the insane hospitals ; in houses of correction and prisons ;

in judicial interrogatories; and even in places of execution; the multiplied researches on suicide, idiots and madmen, have contributed greatly to correct and confirm my opinions. I have laid under contribution several anatomical and physiological cabinets; I have submitted antique statues and busts to examinations and have compared them with the works of history. After having used, for more than thirty years, such diversified means, I no longer feared the danger or reproach of having precipitated the publication of my great work," &c.

" The testimony of Dr. Spurzheim agrees, essentially with that of Dr. Gall, whose collaborator he was for several years. His numerous works bear testimony to his high capacity, great learning and untiring industry, and that lie acted with the deep conviction of the truth of one of his oft-repeated maxims, namely, that one fact well observed is more decisive to us than a thousand opinions, and all the metaphysical reasonings of the schools."

The testimony of George Combe, Esq., author of a " System of Phrenology," " The Constitution of Man Considered in Relation to External Objects," " Moral Philosophy," &c., &c. He says, " When a young man, I paid much attention to the prevailing theories of mental philosophy, frequently meeting a number of friends for the purpose of discussing the opinions of various metaphysical authorities, hoping to obtain some practical views of human nature, which would be serviceable in my intercourse with society, and in the pursuit of my professional avocation. But all my labors proved fruitless of beneficial results, and I ceased to study the works of metaphysicians. Hoping to obtain some more satisfactory notions of the mental functions from the physiologists, I attended' the lectures of Dr. Barclay. All parts of the body were beautifully described, and their uses clearly explained, till he came to the brain ; there all was dark and confused. He took great pains in dissecting that most important organ, but by a wrong method ; he cut it up into pieces like a ham, confessing his ignorance of its functions and intimate structure. The physiologists satisfied me no better than the metaphysicians.

"From the forty-ninth number of the *Edinburgh Review I* received my first information concerning the doctrines of phrenology. Led away by the boldness of that piece of criticism, I regarded its doctrines as absurd and its founders as charlatans. For twelve months ensuing I paid no attention to the subject; indeed, such was the unfavorable impression made on my mind by the review, that when Dr. Spurzbeim came to Edinburgh, I neglected to attend his first course of lectures, and should probably not have attended them at all but for a fortunate circumstance. Coming out of the Supreme Court one day, my friend, Mr. Brownlee, invited me to attend a dissection of the brain to be performed at his house by Dr. Spurzheim. I availed myself of this opportunity of comparing the method of Gall and Spurzheim with that I had seen practiced by Dr. Barclay. Dr.

Spurzheim did not slice, but began at the *medulla oblongata,* gradually unfolding the brain by following its structure. In ten minutes he completely refuted the reviewers' assertions, and finally demonstrated his own anatomical views."

The author states further how his interest in the science was maintained and stimulated at that time and afterwards, and the world knows how important an advocate he became in favor of the then new views of the physiology of the brain, and of the philosophy of mind.

Dr. Robert Hunter, Professor of Anatomy, &c., in the Andersonian University of Glasgow, states that, " For more than thirteen years I have paid attention to the subject of phrenology, and for ten years I have taught the science publicly, in connection with anatomy and physiology," &c.

Sir William Ellis, M. D., "Superintendent of the Middlesex County Asylum at Hanwell, England, and author of a Treatise on Insanity," says, " After many years of experience I am fully convinced that the dispositions of men are indicated by the form and size of the brain. I have been resident physician in this establishment for five years, where we have upwards of six hundred patients, and, for thirteen years previous, held a similar situation in Yorkshire, where we had two hundred and fifty. I could mention a variety of cases in the treatment of which I have found the knowledge I possess of this interesting science, of the greatest utility ; and I am fully persuaded that when it is more known, and acted upon, very great advantages will result to society."

Dr. W. A. F. Brown, Medical Superintendent of Montrose and other institutions, author of " Lectures on Insanity," and afterwards Commissioner in Lunacy for Scotland. " I hereby certify that I have been acquainted with the principles of phrenology for upwards of ten years ; that from proofs based upon physiology and observation, I believe these to be a true exposition of the laws and phenomena of the human mind ; that during the whole of the period mentioned, I have acted on these principles and applied them in the ordinary concerns of life. For several years I have devoted myself to the study of mental diseases and the cure of the insane ; and now that I am entrusted with the care of a large asylum, I am inclined to attribute the success that has attended my efforts to ameliorate the condition of those confided to my charge, to my knowledge of this science."

Dr. John Elliotson, "President of the Royal Medical and Chirurgical Society," "Dean of the Faculty in the University of London," &c., &c., writes thus : "Dr. Elliotson feels convinced of the phrenological being the only sound view of the mind. Twenty years have elapsed since his attention was first directed to it, and during the whole period, a day has not passed without some portion being devoted to its consideration."

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Dr. Andrew Combe, " Fellow of _the Royal College of Physicians of Edinburgh," &c., Author of the " Principles of Physiology applied to Health," " The Physiology of Digestion," [11] A Treatise on Mental Derangement," &c., writes : " Before expressing any opinion on the subject of phrenology, as the science of mind, I think it proper to confess that, for nearly two years after I had first heard of Dr. Gall's discovery of the physiology of the brain, I not only disbelieved its reality, but treated it with ridicule and contempt. Circumstances, however, then occurred, which induced me to examine the doctrines more seriously, and to verify the facts on which they were said to be based. In following this more rational course, the first result at which I arrived was the mortifying conviction of my having been previously entirely ignorant of their real nature and evidences, and employed in ridiculing fancies of my own, which I believed to be phrenology, but which had scarcely any resemblance to it. In pro-portion as my knowledge advanced, and my observations were extended, the impression became the stronger that the leading principles and facts of the science were not only demonstrably true, but, like all other great truths, fraught with the most important consequences to human improvement, and to the prevention and alleviation of human suffering. Sixteen years have now elapsed since the above conviction became deeply rooted in my mind; and it is worthy of remark, that it arose against the influence of prejudice and against what I then had believed to be my worldly interest.

[11] My whole subsequent experience has confirmed the opinion I then formed of the truth of the new philosophy, and greatly increased my sense of its importance to mankind, as constituting, in fact, that science of mind, which has been so long, so ardently, and till now, so unsuccessfully sought after by the ablest men of every succeeding age."

CHAPEL SERVICE.

Religious services have been regularly held and well attended during the year, and were conducted, as heretofore, by clergymen of different denominations from Morristown and the vicinity.

ACKNOWLEDGMENTS.

From Miss D. L. Dix, we have received seventeen volumes for the patients' library ; from Mrs. Neubert, New York, Harpers' Monthly for the year ; from Mrs. E. Peck, of Brooklyn, N. Y., three volumes ; from other friends growing plants, reading matter, and other proofs of kindly interest.

Gratuitous copies of the following papers have been received : Jerseyman and Chronicle and Free Democratic Banner, Morristown ;

1879

Dover Index; Star of the Cape, Cape May ; and Perth Amboy Gazette, Perth Amboy, N. J.

Many daily and weekly papers were taken by the institution and the officers, including about twenty weekly religious papers, which were used for Sunday reading.

To the resident officers associated with me, and others, who have faithfully performed the duties of their respective stations, I would cheerfully accord the merit due to such service.

To the Board of Managers I am under renewed obligations for the careful attention given by them to the affairs of the institution, and for the considerate kindness rendered to myself and family.

Respectfully submitted,

H. A. BUTTOLPH.
State Asylum for the Insane.

Morristown, Nov. 1st, 1879.

1881

SIXTH ANNUAL REPORT OF THE MANAGERS

A N D O F F I C E R ' S OF THE

STATE ASYLUM FOR THE I N S A N E

MORRISTOWN, N.J

NOVEMBER 1. 1881.

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OFFICERS OF THE ASYLUM.

MANAGERS.

FRANCIS S. LATHROP. Madison,

REACH VANDERPOOL, Newark,

ANTHONY RECKLESS, Red Bank, GEORGE A. HALSEY. Newark.

WILLIAM G. LATHROP, Boonton,

JOHN S. READ. Camden,
JOSEPH D. BEDLE. Jersey City.
SAMUEL S. CLARK, M.D. Belvidere, N.J..
HIRAM C. CLARK. Newton. Newark.

OFFICERS OF THE BOARD OF MANAGERS.

PRESIDENT
FRANCIS S. LATHROP, Madison.

SECRETARY.HIRAM C. CLARK, Newton.

TREASURER,
EUGENE VANDERPOOL,

1881

RESIDENT OFFICERS.

SUPERINTENDENT AND PHYSICIAN.
BUTTOLPH, M.D.

ASSISTANT PHYSICIAN.EDWIN E.
SMITH, M. D.

SECOND ASSISTANT PHYSICIAN.
LLOYD. M. D.

STEWARD,
MARTIN B. MONROE

MATRON.
TABOR.

1881

MANAGERS' REPORT.

To His Excellency George C. Ludlow, Governor of
State of New Jersey:

In compliance with the provisions of the tenth (1 (10) section of the further supplement to the Act entitled "An Act to provide additional accommodations for they Insane of this State," approved April thirteenth, eighteen hundred and seventy-six. the Managers of "'The State Asylum for the Insane, at Morristown, Now Jersey." respectfully submit this, their

SIXTH ANNUAL REPORT,

and present herewith. as a part of their own report, the annual reports of the Superintendent, Steward and Treasurer, to which *they refer for* detailed and itemized statements of the work under their immediate charge.

The annual inventory taken as required by law makes the value of personal property belonging *to* the Asylum amount to the sum of ninety-nine thousand four hundred and seventy-three dollars and fourteen cents ($99.473.14), an increase over that of last year of seven hundred and forty-nine dollars and ninety-eight cents (($749.98)

An effective inspection of the asylum has been maintained by weekly visits of one or more *of* the Managers. with but few exceptions, memorandums of which have been made in a book kept for that purpose, with the date of each visit.

During the year a storage reservoir, with a capacity of six million *five* hundred thousand (6,5000,000) gallons, has been completed, thus insuring. against almost any possible contingency, an ample supply of pure water for the institution, the wisdom of which has been fully demonstrated during the last two summers.

The Managers desire to call special attention to the great necessity that exists of improving the grounds and the

To the Board of Managers:

GENTLEMEN—In pursuance of the law organizing the Asylum, I have the honor to submit the following abstract of my amounts for the fiscal year ending October 31st, I881, giving the receipts and expenditures during that period, classified to show the different purposes for which the expenditures have been made. together with a statement in detail of the products of the farm, garden and dairy, the value of which is estimated at $10,077.11 to which should be added $207.00 receipts for rents. making a total of $10,284.11 as the returns, from which amount is deducted the cost of that department, amounting to $56.305.97. leaving a balance of $3,978.14 above the expenses. which result seems quite satisfactory, in view of the long period of drought which so seriously affected the later crops. The item of freight includes the charges for use of an engine in hauling coal from Morris Plains station to the Asylum. The continued period of severe cold weather last winter caused a considerable increase in our fuel account above the previous year, to which were also added the unpaid bills carried over from the preceding year. The accounts show a balance of $12,892.06 cash on hand at the close of the year, all of which will be required to meet outstanding bills now due. The expenditures for repairs include the expense of repairing the railroad between the asylum and Morris Plains. and as but little had been expended upon this branch since the institution was completed, considerable work and material were required to put the road in(proper order.

The annual inventory and appraisement of personal property belonging to the Asylum was made as usual, the estimated value of which is $99.473.14

The Hon. George Dayton. of Bergen county, and Mr. Silas C. Halsey, of Newark, were appointed to assist me in this work, and for whose valuable assistance I am under great obligations.

Very respectfully.

M. B. MONROE,

Steward.

other work still remaining to be done about the Asylum, to render it as originally intended, and therefore, in view of these facts would respectfully ask for an appropriation of not less than thirty thousand dollars (* 30, 000), to be expended for that purpose.

They would also call attention to the gift of a valuable collection of Instrument of Precision," donated by a friend of the institution through Samuel S. Clark, M. D., of Belvidere. one of our Managers, a full list of which will be found in the Superintendent's report.

The suggestions of the Superintendent, under the head " Employment of the Insane," evince great care in their preparation, and are worthy of careful consideration.

The Managers cordially invite Your Excellency, the member of the Legislature and citizens of our State generally. to a careful inspection of the condition and management of *the* Asylum, believing that it will result in a higher estimate of its importance and usefulness.

The cleanliness and order prevailing throughout the institution are evidence of faithful and unwearied attention on the part of *the officers and* attendants, and the kind and careful treatment of the patients and sympathy manifested for them merit our commendation.

No change during the year has been made in the officer of the institution, and the Managers desire herewith to express their continued confidence in the Superintendent, the Assistant Physicians, Steward, Treasurer and Matron, and for the efficient manner in which they have performed the duties assigned to them we record our satisfaction and approval.

All of which is respectfully submitted.

FRANCIS S. LATHROP,
BEACH VANDERPOOL,
ANTHONY RECKLESS,
GEORGE A. HALSEY,
WILLIAM G. LATHROP, JOHN S. READ,
JOSEPH D. BEDLE,
SAMUEL S. CLARK,
HIRAM C. CLARK,.

Managers.

Dated, "State Asylum for the Insane, at Morristown, N. J.," November 1st, 1881.

SUPERINTENDENT'S REPORT.

To the Managers of the Asylum :

GENTLEMEN—In compliance with the law for organizing the Asylum, the Superintendent submits his annual report:

	Men,	Women.	Total.
Patients in the Asylum October 31st, 1880_		2 7 8	586
Patients received since to November 1st, 1881	107	80	1
Under care during the year	:384	389	773
Discharged recovered	20	15	33
improved	23	I 7	40
unimproved			8
Died	28	21	49
Discharged and died	4	58	132
Remaining October 31st, 1881.	310	331	641

Of this number there are	County.	Private	Total.
	517	124	641

Whole number received from opening of Asylum. August 17th. 1876, to November 1st. 1881	Men.	Women	Total
	600	.586	1,186
Discharged recovered	78	64	142
improved	96	98	194
unimproved	13	17	30
Died	103	76	179)
Whole number discharged and died	21)1)	255	545
Whole number remaining	310	331	64 I
Total discharged and remaining	600	586	1. 1.86

STATISTICAL TABLES.

L

	Mon.	Women.	Total.
Sexes.	**600**	**586**	**1,186**

II.

	Men	Women	**Total.**
Ages between 5 and	1		2
10 and 15	5	2	7
1,5 and 20	28	19	47
20 and 30	126	130	**2·56**
30 and 40,	159	173	**332**
40 and 50	114	113	**257**
50 and 60	79	81	160
GO and 70	39	44	83
70 and 80	16	19	85
80 and 90.	3	4	7
	600	586	1,186

DOMESTIC STATE.	Me n	Women.	Total.
Married.	267	265	532
Unmarried	281	231	520
Widowers	**40**		**40**
Widows		80	80
Divorced.		5	5
Unknown	4	5	9
	600	586	1,186

IV.

NATIVITY.	Men.	Women	Total.
New Jersey	**223**	177	400
New York	114	98	212
Pennsylvania	12	15	27
Massachusetts	7	10	17
Ohio	7	3	10
Maine	6	1	7
New Hampshire	1	2	3
Connecticut	5	8	13
Vermont	2	1	3
Virginia		2	2
Georgia	2		2
Louisiana		1	1
Iowa		1	1
Michigan		1	1
Illinois		1	1
Maryland	1	2	3
North Carolina	1	1	2
South Carolina	1		1
Texas	1		1
Missouri	1		1
District of Columbia'		1	1
Florida		I	1
Rhode Island	1	1	2
Ireland	87	114	201
Germany	(31	72	133
England	25	31	56
Wales	:3	2	5
Scotland	6	6	12
Canada	2	1	3
Prussia	1	2	:3
France	4	4	8
Rolland	2	1	3
Sweden	2	:3	
Norway			1
Denmark		1	1
Poland	1		1
Austria	1	1	2
Nova Scotia	2		2
West Indies	3		3
British Honduras	1		1
Switzerland		1	
Africa	1		1
Russia	1	1	2
Unknown	11	II)	30
	(300	586	1,180

V.

HOW SENT.	Private.	Indigent	Pauper	Criminal	Total.
B rgen	13	79	4	1	97
Essex	61	77	7	2	147
TIudsnn	49	1:30	5	2	186
Morris	28	79	I 0	10	127
Passaic	15	94	4	1	114
Sussex	9	3•i	0	1	51
I Ilion	:3I	1·1	1(3	1	196
\Varreii	11		1	2	02
Middlesex	8				8
\lonnlou1.lt	5				$
Ca olden	1				1
Mercer	1				1
IIunlcrdon	1				1
Somerset					2
New York	131				131

P1.

DURATION OP DISEASE PREVIOUS TO .U1V1SSION.	Men.	Women.	Total
Less than 1 year	172	194	
More than 1 year	1 6		1l 9
2 years	75	50	**125**
3	41	:31i	o o
4	29	24	5:3
5	**34**	:31	1;:1
6	19	20	*:3:1*
7	*H'2*	*15*	*:37*
s	*1(i*	15	31
9	10	8	18
10	*13*	*21)*	***33***
11	*6*	G	19
12	9	9	18
13	6	6	12
14	1	•1	5
15	7	14	21
16	5	ɔ	10
17	*6*	*2*	*8*
18	*2*	I	*:3*
19	*2*	*4*	*11*
20		*8*	*1(i*
21	1	*3*	*4*
	1	*.1*	*5*
23	*2*	*4*	*6*
`31	1	1	*2*
2.5		*3*	*3*
°7	1	*1*	*2*
28		*2*	*2*
:30		8	
:31	1	1	2
		1	I
34		1	1
:35	1	I	
:3(i		I	1
.10	1		1
45		1	1
Unknown years	5	15	20
	600	3116	1,186

GENERAL RESULTS AND OBSERVATIONS.

The number of patients under care at the close of the last year, October 1st, 1880, was five hundred and eighty six two hundred and seventy-seven men and three hundred and nine cents.

The number received since. Viz.. from November 1st, I880, to October 31st, 1881, inclusive, was one hundred and eighty-seven—one hundred and seven men and eighty women.

The number of cases under treatment during the year was seven hundred and seventy-three—three hundred and eighty-four men and three hundred and eighty-nine women.

1881

Of the one hundred and thirty-two discharged and died during the year, thirty-five (twenty men and fifteen women) were discharged as recovered; forty (twenty-three men and seventeen women) as improved; eight (three men and five women) as unimproved, and forty-nine (twenty-eight men and twenty-one women) died.

There remained at the close of the year six hundred and forty-one patients, of whom three hundred and ten were men and three hundred and thirty-one were women.

Of these, five hundred and seventeen where supported at public charge an one hundred and twenty-four by friends. as private.

Death occurred in one case from congestion of the brain; in one from congestion of the lungs: in two from epilepsy; in two from consumption; in four from disease of the heart; in five from apoplexy; in six from exhaustion of acute mania; in ten from general paralysis, and in eighteen from general (chronic) exhaustion of system.

It will be observed that death occurred in a very large proportion of the cases from causes indicating the existence of disease of long standing.

The general health of the household during the past year has been exceptionally good.

As heretofore, the large number, indeed proportion, of chronic cases over those of is recent and more curable character, has tended to diminish or limit the number of recoveries and increase the number of deaths.

It may also be added, in this connection, that of the eases admitted during the past year, in about two-thirds of all, the disease had assumed the chronic form before they were committed to our care. This is an unfortunate circumstance for all parties concerned: for the subjects of disease, especially, because a life-long affliction has been established in so many cases for the want of earlier and more timely care; for the family, which has, perhaps, lost its head and dependence for support; for society, which has lost a useful member; and, lastly, for the institution adopted for his or her treatment, and which may fail to do its highest and most to be desired work, through undue delay in his admission.

FARM AND GARDEN.

For more particular information in regard to these departments, reference is made to the lists of products received from them, in another part of this report.

It should be stated, however, that much of the past season

has been exceptionally unfavorable for crops, by reason of the prolonged drought of summer and autumn.
Some of the crops, however, especially those of hay and oats, that had their main growth early in the season, were air in quality and extent; while nearly all others. as corn. potatoes. pasture for stock, as well as most garden vegetables, were inferior in quality and limited in quantity.

IMPROVEMENTS ON GROUNDS.

This department is regarded, by the writer, as one of great importance, as connected with the facilities of the institution for carrying out successfully, its great and benevolent purposes. However well adapted the building may be, in its arrangement, construction, etc., for the purpose intended. yet, as in the tine climate of this region, for several months in the year it is both agreeable and advantageous for the inmates to pass much time in the open air, it is highly important that the general plan of laying out the grounds, if well adapted for the purpose, should be carried out in detail. with as little delay as possible.
To recall a more definite idea of the nature and extent of what is required. I take the liberty of repeating, in part, the language of a former report. It was stated, what all will admit, that the institution cannot be rendered attractive and useful in the highest degree until the grounds in its vicinity are. by cultivation. brought into constant use by the inmates, for the purpose of healthful and pleasurable exercise.
The design proposed for laying them out,, in addition to carriage drives approaching the door-ways of the centre building and the three front wings on either side. embraces. also, a central avenue of approach in front, fifty feet wide, finished in a substantial manlier, with stone-paved gutters, also with double rows of shade trees on either side, with walks between.
By this arrangement, the front grounds will be divided for free use by both sexes at the same time, a point of great practical importance.
In addition to the central avenue. carriage drives with trees on both and walks on one side, will be laid from the centre right and left, about one mile in extent, to encircle the grounds and meet at the central avenue, within the general enclosure about one-third of a mile distant from the main building. This arrangement of the grounds would render it possible to have a gate lodge located at the proper point, which would be at the junction of the side roads with
the central avenue.

The extent of carriage drives and shaded walks thus formed within the grounds would greatly lessen the motive for going beyond them for many who walk for exercise, and oven for many who drive for the benefit of temporary change from the wards of the building.

These roads. particularly the central avenue, should be excavated and filled with stone, and all of them finished with a coating of broken stone or gravel, to insure a dry and permanent surface.

To finish these, grade the grounds generally, plant trees, lay the necessary walks, etc., will, of course involve considerable expense, but, when completed, will be of great utility and require little expense. for repairs afterward.

The top soil, in making the needful excavation, supplies what is needed for surface dressing for grass plots, borders to roadways, terraces, etc., and for such purposes there will be large demand.

When this arrangement of roads and drives is completed, with gate lodge, as proposed, to command the entrance to grounds, the outside travel, or that between Morristown and surrounding places, can he excluded.

As now situated, the roads through the private grounds of the Asylum are used as thoroughfares, not only for carriages, but for such heavy carting as to give them at all times undesirable, and at certain seasons, very injurious wear.

The practical question which presents itself is how to procure the means for defraying the expense of these improvements. In view of the great extra expense attending the organization and opening of a large establishment; in view, also, of the fact that the annual income of the institution was lessened by several thousand dollars, through an act of the last Legislature, reducing the price of board fifty cent per week for all patients at county charge, it is evident that the improvement of grounds, so much needed, cannot he *made* from funds to be derived from its current income within a reasonable period.

WATER -SUPPLY.

During the last season the excavation for a storage reservoir, with capacity for six and a half million gallons, and commenced the year before. was finished and the interior surface of the banks carefully stoned to a point three feet above the water line.

It is now ready for use whenever the flow of water from mountain. springs shall increase sufficiently, through the agency of fall and - winter rains and snows, to fill it.

1881

It may be added that the state of the water supply front the original sources during the extreme drought of last summer and even to this date, was and is such as to fully justify the movement in favor of this work.

EMPLOYMENT OF THE INSANE.

To persons accustomed to manual labor, and even to many who have not regularly engaged in it, some equipment involving muscular exercise and sonic concentration of attention is highly advantageous as a means of improving the physical and, through it, the mental state.

This is known observation and experience. but it is, also, inferable directly from the fact that in. all case's of mental derangement there is loss of balance and harmony in the physical powers as well.

To relieve this and to restore the natural relation between the -vital forces of the body and brain, useful regular employment, where persons are able and willing to engage in it, is often, especially in chronic cases, the most available means of relief.

The principle of its action is, that through muscular exercise the flow of blood is increased to all the organs and parts of the body, including the brain_ Again, the effect of a greater flow of blood to the brain, is to develop a greater supply of nervous power to the digestive organs, thus increasing appetite, improving digestion and through it, the nutrition of the body. If, in connection with an improved nutrition, the brain is brought to a state to take natural rest in sleep, the recuperation will be still more certain and rapid.

If it be impracticable to find employment suited to an individual, or that he is able or willing to take, it becomes necessary to fall back upon some light occupation, as walking, riding, the various out and in-door games; also, upon such entertainments acid amusements as can be brought within reach. Among the latter would be classed instrumental and vocal music, attending lectures, theatrical repre-sentations, dancing, croquet, foot-ball, base-ball, billiards, cards, chess, checkers. etc.

The important principle to be kept in view is to so adapt the employment, occupation or amusements to the strength, previous habits and tastes of individuals, as to give due invigoration to the physical. and useful and agreeable diversion to the mental powers of all.

It may be added, however, as a fact to be much regretted, that there are in many or in most of the institutions of the country, a very large number or proportion of both sexes,

whose physical powers and whose mental faculties are so much impaired in activity and strength, as to render them incapable of engaging; in useful employment or of receiving pleasure to any considerable extent, from the occupations and amusements in which others engage with satisfaction and benefit.

If this course is taken. the confidence of the patient is secured by the medical officer, and an important advantage gained in his treatment afterward.

ACKNOWLEDGMENTS.

From a friend of the institution, through Dr. Samuel S. Clark, of Belvidere. New Jersey, one of the managers of this Asylum, and who kindly made the selection, we have received a most valuable collection of " Instruments of Precision." consisting of one Binocular Microscope, with full accessory apparatus and case of mounted objects; one Ophthalmoscope (Loring's best); one Laryngoscope; one Sphygmograph (Pond's); one Dynamometer (Hamilton's); one Esthesiometer (Squiers); one Aspirator (new form, Phelps' make); one electro-medical apparatus, with full case of appliances (Kidder), and half a dozen clinical thermometers.
From Mrs. M. M. Rankin, of Baltimore. Md., we have received twenty-six volumes for patients' library.
From John S. Pierson, of New York, long a friend to institutions of this kind, a large collection of colored comic prints, which have been bound in two volumes, for the use of the patients.
Gratuitous copies of the following papers have been received: Jerseyman and Chronicle and Free Democratic Banner, Morristown, and Star of the Cape, Cape May, New Jersey.
From Fowler & Wells, one copy of the Phrenological Journal.
Many daily and weekly secular and many weekly religious papers
From Fowler & Wells, one copy of the Phrenological Journal.
Many daily and weekly secular and many weekly religious papers and periodicals are taken by the institution, its officers and employees, which are largely read by the inmates.
Religious services in the chapel on Sunday have been regularly held during the past year.
To the Board of Managers I am under obligation for their interest in and their attention to the affairs of the institution.
Of the other resident officers and of the many employees who have given diligent co-operation in the affairs of the. institution during the past year, I desire to speak in terms of grateful appreciation.

Respectfully submitted.

H. A.,. BUTTOLPH

STATE ASYLUM for the Insane, Morristown. Nov. 1, 1881.

1881

TENTH ANNUAL REPORT

OF THE

MANAGERS AND OFFICERS

OF the

STATE ASYLUM FOR THE INSANE

AT MORRISTOWN, N. J.,1885

For the Year Ending October 31st, 1885

1885

OFFICERS OF THE ASYLUM.

MANAGERS.

GEORGE A. HALSEY, MD	Newark.
SAMUEL S. CLARK, M.D	Belvidere.
HIRAM C. CLARK, JAMES S. GREEN, M.D., JOSIAH MEEKER,	Newton.
	Elizabeth.
	Succasunna.
THEODORE R. VARICK, M.D.,	Jersey City.
EDWARD T. BELL, HUGH C. HENDRY, M.D., WILLIAM S. BANTA, JOHN W. JACKSON, MD	Paterson.
	Newark.
	Hackensack.
	Rockaway.

OFFICERS OF THE BOARD OF MANAGERS.

President,	GEORGE A. HALSEY.
Vice President,	SAMUEL S. CLARK, M.D.
Secretary,	HIRAM C. CLARK. EUGENE VANDERPOEL.
Treasurer,	MARY TABER,

RESIDENT OFFICERS.

EDWIN E. SMITH,	Medical Director.
EDWARD C. BOOTH,	Assistant Physician.
WILLIAM L. RUSSELL, C. P. WERTENBAKER,	Second Assistant Physician.
	Third Assistant Physician.
WILLIAM MABON,	Fourth Assistant Physician.
MARTIN B. MONROE,	Warden.
	Matron.

To His Excellency Leon Abbett, Governor of the State of New Jersey :

The Board of Managers, in compliance with the provisions of the tenth section of the further supplement of the act entitled "An Act to provide additional accommodations for the insane of this State," approved April thirteenth, eighteen hundred and seventy-six, would respectfully submit this, their

TENTH ANNUAL REPORT,

and with it the annual reports of the Medical Director, the Warden and the Treasurer, to which they refer for a full and itemized statement of whatever pertains to each department.

The number in the Asylum on the 31st day of October, 1884, was seven hundred and forty-five (745) patients, of whom three hundred and seventy-one (371) were males, and three hundred and seventy-four (374) were females.

There were received during the year to November 1st, 1885, two hundred and seventy-eight (278) patients, of whom one hundred and fifty-six (156) were males, and one hundred and twenty-two (122) were females.

There have been under treatment, during the year, including those absent on probation and by elopement, one thousand and twenty-three (1,023) patients, of whom five hundred and twenty-seven (527) were males, and four hundred and ninety-six (496) were females. Of these, forty-two (42) were discharged recovered, twenty-two (22) much improved, thirty-four (34) improved, thirty-two (32) unimproved, and fifty-six (56) have died. There have been discharged as inebriates, six (6); as opium habitues, two (2).

There were remaining in the Asylum, October 31st, 1885, eight hundred and twenty-six (826) patients, of which number there were four hundred and twelve (412) males, and four hundred and fourteen

(414) were females. Of these, six hundred and seventy-three (673) were public patients, and one hundred and fifty-three (153) were private patients.

The whole number received from the opening of the Asylum, August 17th, 1876, to November 1st, 1885, was two thousand and sixty (2,060); of these, ten hundred and eighty-five (1,085) were men, and nine hundred and seventy-five (975) were women.

Of these, there have been discharged recovered, two hundred and ninety-six (296) ; improved, four hundred and twenty-four (424) ; unimproved, ninety-three (93), and four hundred and ten (410) have died.

The annual inventory of the personal property belonging to the Asylum, taken by the Warden and two appraisers, as required by law, amounts to one hundred and sixteen thousand nine hundred and thirty-two dollars and twenty-five cents ($116,932.25), being an increase of five thousand seven hundred and twenty-one dollars and twenty-five cents ($5,721.25) over the year 1884.

The Treasurer reports that the receipts from all sources, including the balance of ten thousand two hundred and eighty-seven dollars and eighty-one cents ($10,287.81) on hand November 1st, 1884, amounts to two hundred and twenty-four thousand five hundred and seventy-seven dollars and twenty-six cents ($224,577.26), while the payments for the same period amount to the sum of two hundred and three thousand seven hundred and seventy-one dollars and ninety-six cents ($203,771.96), leaving a balance in his hands on the thirty-first day of October, 1885, of twenty thousand eight hundred and five dollars and thirty-one cents ($20,805.31).

Of these receipts, eleven thousand two hundred and twenty-five dollars and ninety-three cents ($11,225.93) were from convict patients; and sixty-four thousand three hundred and ten dollars and nineteen cents ($64,310.19) were from private patients.

The Managers have consented to the proposition of the Managers of the State Asylum at Trenton, to reapportion the insane of the counties of this State, thereby adding to the list of this Asylum the county of Hunterdon.

On the twenty-eighth of March, 1885, sixty-two patients belonging to Hunterdon county were transferred from the State Asylum at Trenton to this Asylum.

The Managers, after an experience of nearly a year, have the satis-

faction to report that the radical change in the organization of the institution, proposed in their last annual report, has proved a complete success, and has resulted in the better care and comfort of the patients and the more economical business management of the Asylum.

The Managers, in accordance with the supplement to an act entitled "A further supplement to an act entitled `An Act to provide additional accommodations for the insane of this State,' " approved April 7th, 1885, have elected Dr. Edwin E. Smith, Medical Director ; Dr. Edward C. Booth, Assistant Physician ; Second Assistant Physician, Dr. Wm. L. Russell ; Third Assistant Physician, Dr. C. P. Wertenbaker; Fourth Assistant Physician, Dr. Win. Mabon, and Martin B. Monroe, Warden. The office of Assistant Physician has been filled after competitive examination. During the months of July, August and September a fever of a low type appeared in the north side of the Asylum—with one exception. An investigation to ascertain the cause of this fever made it probable that the open, unprotected mouth of the main north sewer was so located as to receive the emanations from the open cesspools in the neighborhood, and that the continuous draft of the smokestack in the rear of the center building was not sufficient to prevent the inflow +he foul air through the untrapped closets at the extreme ends of the building.

The plan for the disposal of the sewage by broad surface irrigation, as described in annual report of 1883 by the late Superintendent, and adopted by this Board at his suggestion, proving a failure, and giving rise to complaints from the neighboring property owners, the Managers requested the advice and assistance of the State Board of Health, to solve the question of the proper and effectual sewerage for the Asylum so as to prevent the possibility of the pollution of neighboring streams and the infection of the buildings by sewer gas.

To this end the Board have employed Prof. Charles McMillan, Civil Engineer of the College of New Jersey, to take charge of the work, and it is now in progress under the advice and approval of **the** State Board of Health.

For a full presentation of this subject reference is made to the reports of the State Board of Health and Prof. Charles McMillan, which are appended to this annual report.

The Managers of this Asylum have been twice presented by the grand jury of the county of Morris, because the system of sewerage polluted the waters of running streams in the neighborhood, and thus

endangered the health of persons living near said streams, and there-fore that this Board are maintaining a public nuisance. The Board had hoped that the method adopted in 1883 would have remedied the evil, but it has proved ineffectual.

The plan recommended by the State Board of Health and Prof. McMillan (already commenced) will involve a large expenditure of money, for which the pecuniary aid of the State is requested.

The Managers, while desirous to obey the laws and avoid all cause of complaint, having received the Asylum from the hands of the State in its present incomplete and imperfect condition of sewerage and ventilation, are powerless to do what the grand juries of the county of Morris demand unless the State come to their assistance.

All of which is respectfully submitted.

GEORGE A. HALSEY,
SAMUEL S. CLARK,
HIRAM C. CLARK, JAMES S. GREEN, JOSIAH H MEEKER, THEO. R. VARICK, EDWARD T. BELL, WILLIAM S. BANTA, HUGH C. HENDRY, JOHN W. JACKSON,

Managers.

Dated at the State Asylum fir the Insane at Morristown, New Jersey, November 19th, 1885.

To the Committee of the Managers of the Morris Plains Asylum:

After the statement of our views made to your Board of Managers, and the reasons given therefore on Thursday, September 3d, 1885, an outline of which we have placed on file subject to your reference, it is not necessary that we do anything more in this communication than to outline alterations which, in our judgment, should be made, and to indicate the mode of their execution.

As to the interior of the buildings, we believe that the present manner of discharge of storm-water into the sewers should be discontinued. It can either be turned directly into the streams or a part of it be retained in cisterns for house use; or in the opinion of any expert whom your Board of Managers may designate, in addition to the one hundred and fifty thousand gallons passing through the sewers each day there should be occasional additional flush from the ends of the main sewers, some of the storm-water can be stored for this purpose.

Every water closet, or other pipe connecting with the house sewer system, should be trapped. We believe that preference should be given to water closets of a carefully selected hopper washout pattern. The putting in of vent pipes to prevent all syphonage, the having of all soil-pipes open above the roof and air-shafts to the sewers where they leave the building, with outside traps just beyond, are, in general, to be recommended. But as the use, location and number of these have a bearing upon the action of the present exhaust system of sewer ventilation, it will be necessary, by accurate calculation, to ascertain the area, angles and directions of the net-work of sewer-pipes and connections, the actual power of draught at various points, and how far it is possible to use the heat of the smoke-stack and the fans or blowers, &c.

We advise that the whole inside arrangement of the sewer system be put into the hands of a Mechanical Sanitary Engineer chosen by

you; he to oversee the work, but the plan to be submitted to the joint committee of your Board of Managers and the Board of Health for suggestions and approval before work is begun.

Grease traps of the best construction should be placed where the Sanitary Engineer shall determine the same to be necessary. Next, as to

THE OUTSIDE DISPOSAL OF SEWAGE.

We do not approve of the present system, and believe that no efficient modification thereof can be devised.

We have no doubt that by either of the three plans of (a) chemical precipitation and compression, or (b) flush tank and sub-soil distribution, or (c) surface irrigation over drained and cultivated land, the sewage could be satisfactorily disposed of so as either to leave no effluent to go into any stream or to leave only such as would have the purity of common rain-water percolating through good cultivated land, but for this institution we advise the flush tank and sub-soil distribution system.

The choice of position and plant thereof, with probable cost, should be furnished by an expert chosen by your Board of Managers, the same being submitted for suggestion and approval to the joint committee of your Board of Managers and this Board. The person chosen by you should have superintendence of the work and be responsible for the satisfactory disposal of the sewage by the system devised. The general method of tillage should also be determined upon, as it has important relation to the effective disposal.

While the house system, and the outside plant for the disposal of the sewage, might be under one superintendent, yet, as the questions involved are quite different, the work would probably be facilitated by a separate oversight ; most of the work could be best done under the management of Mr. Monroe, and as directed by the engineer chosen.

EZRA M. HUNT, ALBERT R. LEEDS, EZRA A. OSBORN.

Trenton, September 19th, 1885.

DISPOSAL OF SEWAGE

AT THE STATE LUNATIC ASYLUM AT MORRIS PLAINS, NEW JERSEY.

BY CHARLES M'MILLAN, CIVIL ENGINEER.

PRINCETON, N. J., Sept. 8th, 1885. *The*

Honorable Board of Managers of the Morris Plains Lunatic Asylum :

GENTLEMEN—In accordance with your wishes I have examined the grounds of the Asylum with a view to processing a satisfactory place and method for the permanent disposal of the sewage of the institution, and of suggesting temporary expedients of which you might safely avail yourselves while you are considering and awaiting the execution of a final plan of operations; and now have the honor to present my report.

It is quite well understood, I believe, by your Board that every scheme for the purification of sewage is, to say the least, greatly complicated by the admission of storm-water into the sewers. In the case of the Morris Plains Asylum there would result more than an increase of complexity in the problem ; the admission of storm-water into the sewers would, in my opinion, entirely frustrate any systematic attempt to purify the effluents. The utter exclusion of the rain-water from the sewers is, therefore, a necessary preliminary to the successful solution of your sewage question.

The flushings of the " dead ends " of the sewers can be accomplished with much greater regularity and efficiency than by the present method, through periodic discharges of clean water from small flushing tanks holding about one hundred gallons each, and operating once in twenty-four hours or oftener, as experience may dictate.

The elimination of storm-water from the problem reduces the question simply to the best mode of dealing with a flow of sewage which is practically uniform from day to day, and which equals in

amount the average daily consumption of water in your buildings. Mr. Monroe, the Warden of the Asylum, estimates the latter, from repeated rough gaugings, to be at the utmost one hundred and fifty thousand United States gallons.

This amount of sewage is quite within your control, and, I am happy to add, can be efficiently dealt with on your own grounds.

The volume of flow, however, is excessive, and indicates a great waste of water on the premises. Later on, if you desire it, I hope to be able to indicate some means for reducing this waste. But for the present, in view of the natural anxiety with which you regard the existing arrangements for the disposal of the sewage, I have felt it necessary to concentrate all my attention on the endeavor to demonstrate to you, at the earliest possible moment, where and how the present flow of sewage, excessive though it be, can be satisfactorily and permanently dealt with.

The use of grounds for sewage treatment in the vicinity of public buildings is, to say the least, in bad taste. Moreover, on sanitary grounds, it is desirable, on the principle of erring on the safe side, to interfere between buildings and sewage filters, or purifiers, as wide an interval of perfectly pure air as circumstances will permit. And, very naturally, this interval should increase with the volume of sew-age dealt with.

For such reasons, but mainly owing to topographical peculiarities of the Asylum grounds, and to the fact that the foreground of the institution is to all intents and purposes a public park, I have decided to recommend that either the so-called gravel field or the sloping field above it, as you may prefer, be set aside permanently for sewage filtration.

Two general schemes for dealing with the sewage of the Asylum are presented for your consideration, either of which, if properly executed, will, in my opinion, furnish a satisfactory solution of this question.

In both schemes it is proposed to convey the sewage through water-tight pipes, and by the cheapest practicable routes, to the sewage fields, where the liquid, after being screened, will be distributed, by means of suitable appliances, underneath the soil and cleansed by downward filtration. The laying of small pipes, technically known as "absorption tile," for effecting the distribution of the sewage renders this method costly in comparison with the system of " wide

irrigation" as usually applied in this country. It must be remembered, however, that the latter is suitable only for areas which are far enough removed from public gaze, from buildings,, and from lines of travel, to screen effectually the offensiveness of its operation, and that it is therefore inapplicable, or, rather, unsuitable for any of your fields.

The method of disposing of the sewage which I suggest is usually a satisfactory one in every respect. It admits of being applied even to lawns without materially interfering with their ordinary uses, and can no more be spoken of as a tentative measure, either from a sanitary or an engineering point of view. It has been for years in operation on a large scale in several places in the Eastern States, and the fact that it is still in favor indicates its value as an efficient and thoroughly decent mode of disposing of sewage.

It is proposed to tap the main sewers on either side of the building at or about the points where the present sewers pass under the foot of each terrace. From these points the sewage will be conveyed by separate lines of six-inch glazed sewer pipe along the northern and southern slopes of the grounds to a junction situated near the inter-section of the new avenue and the old boundary, whence it will flow through a single line of pipe to the settling tanks.

These pipes should be provided at distances, averaging three hundred feet, with brick manholes whereby the sewers can be examined and cleaned and proper ventilation secured.

The preceding features are common to both schemes or plans. Those in which they differ may be described as follows :

Plan No. 1, as I will designate it, contemplates the use of the sloping field lying immediately below the old boundary as a filtering area. Parts of the adjoining slope now occupied as a corn field may also be needed for the same purpose.

The two settling tanks and the flush tank must be located above these slopes, that is, somewhere near the junction previously mentioned. From the flushing tank, pipes called "carriers" will convey the daily charge (one hundred and fifty thousand gallons) to the different sections of absorption tile buried beneath the surface of the field, where the liquid will be absorbed in a very short time after its delivery. The remainder of the twenty-four hours will be occupied in filtering and cleansing the liquid and in renewing the ground-air which will have been displaced by the charge of sewage

The sewage field of Plan No. 1 will need to be underdrained to the depth of five feet by means of agricultural pipe drains spaced about twenty feet apart. The directions of these drains will be up and down the slope and, therefore, nearly at right angles to the lines of absorption tile, which will deviate but little from the contour of the surface. There will thus be provided, at the very least estimate, a depth of four and a quarter feet of filtering material between the charge and the underdrains, and there will be an average of only three-quarters of a gallon of crude sewage delivered to one cubic yard of filter-bed every twenty-four hours.

Plan No. 1 will cost about $31,000.

Plan No. 2 contemplates the employment of the gravel field for the purification of sewage. This field, though not fit for such uses in its present condition, can be converted into an excellent filter-bed by ploughing in and covering it with denser material.

The field will be required to be underdrained, but not at all in the proportion needed for the sewage field of Plan No. 1. Nor will the object, or purpose, of the sub-drains be the same. The sub-drains in the gravel field will very probably discharge little or no water, and will serve principally as air ducts for oxidizing the filter-bed above them, while in the other field the primary object of the drains is the speedy removal of the underground water, although the drains will also act as air ducts.

In executing this plan a pipe must be laid from the junction of the sewers to the settling and flushing tanks, which, in this case, should be located in the lower part of the sewage field of Plan No. 1.

The execution of Plan No. 2 will cost about $28,000.

My estimates are merely approximations, and the distances and areas, with one exception, have been estimated from your property maps, yet I have no reason for supposing that, with careful management, my estimates will be exceeded.

As a temporary expedient for the immediate future I would suggest that the rain-water pipes be cut off from the sewers, and that the six-inch pipes, which I have proposed in the foregoing plans, be laid to the junction and extended in one pipe far enough beyond that point to enable Mr. Monroe to distribute and control the sewage on the sewage field of Plan No. 1. The Tod lot may also be utilized similarly, if the flow of the sewage over it is carefully regulated. To that

end, a branch and stop valve should be attached to the six-inch sewer pipe where the latter crosses the lot.

For temporary purposes no sewage or settling tanks will be needed.

The cost of the temporary arrangement will not exceed $3,000.

I remain, very respectfully,

Your most obedient servant,

CHARLES McMILLAN.

1885

To the Board of Managers :

GENTLEMEN—In compliance with my official duty I have the honor to submit this, the tenth annual report of the financial and business management of this institution for the fiscal year closing October 31st, 1885, with suggestions as to its needs for the next ensuing year.

The amendment to the organic law of the Asylum, adopted during the last session of the Legislature, having increased the responsibilities of this department, and added to the duties of the office of Warden, to which I was appointed, I desire to state that I have endeavored to carry out the provisions of the law, and to discharge the several duties assigned to me according to my best judgment, and in a manner to deserve your approval, and, while it is to be expected that some con-fusion might arise in arranging the details necessary for so radical a change in the re-organization of a large institution, the practical application and working of the law has demonstrated, in its results, an improvement or advancement which is most satisfactory.

FINANCIAL.

The average number of patients during the year was calculated at seven hundred and ninety.

The number in the institution at this date, eight hundred and twenty-six.

The revenue of the past year, including a balance of $10,277.36 carried from 1884, amounts to $224,566.81. The addition of sixty-two patients, belonging to the county of Hunterdon, and transferred from the Trenton Asylum, March 28th, increased the income, also adding to the disbursements, which amount to $203,828.31, leaving an unexpended balance in the hands of the Treasurer of $20,738.50.

The amount of subsistence and fuel in store was $14,108.20.

Accounts due, $27,173.84, against which we have liabilities amounting to $22,986.01.

The prosperous condition of the finances of the institution, notwithstanding considerable expenditures from the current income for many improvements upon the grounds and buildings made during the past year, is most gratifying, and it gives me pleasure to state that if appropriations are made by the Legislature at its next session, sufficient to cover the estimated cost of the proposed sewage disposal and for outbuildings, that some reduction might now be safely made in the price of board of public patients.

FARM, GARDEN AND DAIRY.

The season has not been unfavorable to an average fair return from these departments, although some of the crops, while promising good in the early season, were injured by the extended drought, yet the general results are equal to our expectations. We have a larger store of potatoes and other vegetables for Winter consumption than has been raised any year since the opening of the Asylum, a liberal use of fertilizers contributing considerably to this result.

The returns from the farm, garden and dairy in products and stock are presented in full in the appendix, and are valued at $14,628.23. The total expenditures for all purposes, including hay and feed purchased for all stock, was $11,056.76.

IMPROVEMENTS.

Work upon the central avenue was resumed in the early Spring, with the voluntary labor of a number of patients, under charge of attendants, and continued up to the present date. Great progress has been made toward the completion and opening of this road, and with but small cost to the institution, the principal item of which being for implements. The changes of the grade, and of the line terminating at the Pierson bridge, having been fixed early in the season, enabled me to advance the work from that point with greater expedition ; and I had hoped, if the season proved favorable, to have opened the road for general use this year.

In pursuance with your instructions, and in order that the improved system of sewage disposal, adopted by your committee, may

be carried forward and advanced as rapidly as possible during the present year, I have proceeded with the work of disconnecting the storm-water conduits from the sewer, and have to report that the position of the storm-water from the roofs of the south wing of the building is now provided for by a separate system of pipes, which discharge beyond the terrace and into the streams on that side. In the progress of the work it was discovered that a line of pipe had been laid during the construction of the building which was intended to conduct the water from the roofs of the fourth wing and one of the sections, but by some oversight the outlet of this pipe had been buried under a road (located a few years ago) and an accumulation of ashes and debris. None of the employees had any knowledge of its existence. There was no way for the water to escape except as it was filtered through the ground or backed up in the pipe and found its way to the surface. Probably this may account for the presence of water in the air-ducts of that wing of the building at certain seasons, and which regularly appeared after storms. The work of disconnecting the pipes on the north side will now be commenced and carried on as far as the season will permit. The question of increasing the water supply for the institution having been brought to your attention in January last, and the fact that the lower reservoir, which is sup-plied by several springs and the Pierson brook, with a storage capacity of four hundred thousand gallons, could not be utilized to full advantage, as the six-inch main pipe terminated into a four-inch, at a considerable distance from the building, thereby increasing the friction and obstructing an easy flow of the water to the upper floors of the building, I was therefore directed to remove the four-inch pipe and replace it with one of six-inch diameter, which was accomplished early in the season with entirely satisfactory results.

Later, during the month of July, it was noticed that the supply from the springs above the larger reservoir were decreasing, and in order to keep a sufficient quantity in storage, to guard against the accident of fire, pumping from the ice pond was resorted to, as in previous years had been done. The quality of the water from the ice pond being questioned it was suggested to the committee that this might be remedied by obtaining the supply for the pump direct from the stream above the pond, which was approved, and a six-inch pipe was laid, terminating about one thousand feet up the stream, at a point beyond the danger of pollution from any of the outbuildings upon the

premises. From this source we can now obtain an abundant supply at all seasons, also a greatly improved quality of water.

The renewal of the flooring of the basements of the building having become a necessity, after consultation with the committee it was decided that this improvement should be gradually advanced and the material for replacing the floors should be of a more durable character than wood, capable of enduring the severe wear of the food and other cars used to convey articles and materials from the shops and laundry.

A beginning has been made in the corridor, in rear of the boiler house, by covering all the steam pipes under the floor with iron plates specially designed for that purpose.

The present system of sewerage of the Asylum, and of its disposal by surface irrigation, having been objected to on the ground that it was dangerous to public health, and also that the discharge from the settling beds, after passing through the troughs, finally reached the streams, thereby causing their pollution and endangering the health of persons living in the neighborhood, has been fully considered by the Board, and several less objectionable methods now in successful operation having been examined by the committee to whom this subject was referred, resulted in the employment of Professor Charles McMillan, of Princeton, a competent sanitary engineer, to prepare and submit plans, subject to the approval of the State Board of Health.

In the execution of this work a force of laborers have been employed and are now engaged on the work of excavating the ditch to receive the sewer pipe, to be extended to the fields in front of the building.

Following is the presentment of the Board of Managers, made by the Grand Jury of Morris county upon complaints made to them at their last session.

The Grand Jury returned into court on Wednesday evening with thirty-nine bills of indictment, and the following

PRESENTMENT.

The grand inquest for the State of New Jersey, and for the body of the county of Morris present, that it has come to their knowledge that the system of sewerage now in use at the Morris Plains Asylum for the Insane is dangerous to public health and therefore a public

nuisance. It appears that those having control and management of the institution in question have been presented to this court by a former Grand Jury because the system of sewerage then in use polluted the waters of running streams in the neighborhood, and thus endangered the health of persons living near and adjacent to said streams. This action appears to have resulted in an effort to abate the nuisance, and the Legislature of this State was appealed to for funds sufficient to carry into effect measures that would remedy the evil. With the money thus obtained (which was scarcely one-third of the amount necessarily required to effectuate a complete and perfect system of sewerage) the present method was adopted and completed. The Grand Jury are firmly of opinion that the system now in use is as bad if not worse than the one formerly complained of. Since its adoption many cases of typhoid fever have occurred in the Asylum and several deaths have ensued, and the opinion seems to be well founded that this unfortunate and dangerous condition of affairs is directly attributable to the pernicious system in force. In addition to this, brooks in the immediate vicinity of the Asylum must, from the nature of the case, become more or less polluted by the sewerage matter from that institution.

The Grand Jury would present a bill of indictment at this time did they not believe that an honest effort was being made by the Commissioners and Managers to abate the nuisance by the speedy adoption of a new system as frequent complaints had been made of the imperfect ventilation of the water-closets in certain localities of the building, particularly in the center, which is occupied by the resident officers and their families, and used also as offices in which to transact the general business of the institution by the Medical Staff and Warden, the committee concluded, after carefully investigating the matter, that the system of exhaust ventilation as thus relied upon was unreliable in its operations, and that it was necessary, in order to correct the evil, that the present arrangements should be abandoned, and that another and more approved method substituted.

This work was placed in charge of Messrs. E. Dunn & Brother, of Newark, N. J., who estimate the cost at about $1,500.

1885

CLASSIFICATION OF INVENTORY.

Subsistence and fuel	$14,10 2
Housefurnishing	71,387 4
Farm and garden implements and stock	9,489 9
-Clothing, hardware, &c	**5,312** 9
Shop tools and miscellaneous	16,633 6
Total	2

Dated State Asylum for the Insane, Morristown, N. J., November 1st, 1885.

1885

Abstract of Accounts for the year ending October 26th, 1885.

EUGENE VANDERPOEL, *Treasurer.*

DR.			CR.		
To balance Oct. 27th, 1881		$10.27 36	Amusement	$709	48
To amount received for board, clothing and incidental of private patients		64 31 19	Books and stationery	628	34
To amount received for board, clothing and incidental of county patients		104 51 29	Bedding, linen, &c	7 000	21
To amount received from State Treasurer for county patients		30 40 41	Clothing	7 345	57
To amount received from State Treasurer for county patients		11 22 93	Crockery and cutlery	863	46
To amount received for hides, tallow, &c	14		Counsel fees	50	00
To amount received for sundries, rags, &c	76315		Farm and garden	7 812	80
To amount received for rents	6000		Fixtures	1 101	21
To amount received for hogs and pigs	31550		Flour	4 810	92
To amount received for postage	1584		Feed	2 731	27
		3,838 63	Fruit	1 091	61
			Freight	2 250	72
			Furniture	5 458	40
			Fuel	15 00	47
			Funeral expenses,	634	71
			Grounds and grading,	2 181	37
			Gas and steam pipe and fittings.	1,036	97
			plies	210	83
			Hay and straw	412	00
			Household goods	614	81
			Incidentals, including telegrams, telephone, rental, soap, &c	1 472	26
			Insurance	1 100	00
			Improvement of buildings	2 646	06
			Improvement of ventilation, etc	270	45
			Increase of water supply	1,213	08
			Light, including gas used as laundry and cooking	2 375	62
			Laundry	4 227	06
			Medical supplies	1 051	56
			Medical library	56	40
			Newspapers	263	20
			Organ in Chapel,	500	00
			Provisions and groceries	63 10	30
			Postage	250	00
			Petty current expenses	500	00
			Printing	2 681	20
			Refunding	1 710	70
			Repairs	7 025	83
			Smith and wheelwright	670	14
			Stock	25	00
			Tools and supplies, boiler and machine	662	14
			Traveling expenses	541	01
			Tinware and fixtures	1 000	15
			Vegetables	1 813	74
			Wages	40 18	10
			Balance	20.73	50
		$224,5 81		$221,5	81
Balance		$20,73 50			
Orders not presented for No. 316		9 89			
Orders not presented for					

No. 885	19	61
Orders not presented for No. 894	37	30
Balance in hands of Treasurer, 31st, 1885	$20,803	05

1885

Garden, 1885.

2,107 bunches asparagus	@	$0	08	$168 56
1.019 bunches rhubarb			05	50 95
3.619 bunches radishes			02	72 38
592 bunches parsley			02	11 84
50 bunches sage.			03	1 50
50 bunches thyme			03	1 50
50 bunches savory			03	1 50
10i bushels horseradish			80	8 40
891 bushels spinach			40	35 80
268 bushels carrots			50	134 00
30 bushels oyster plants		1	00	30 00
658 bushels turnips, yellow stone			**35**	230 30
90 bushels turnips, flat			25	22 50
175 bushels turnips, ruta baga			35	61 25
274 bushels beets			65	178 10
1951 bushels peas		1	00	195 50
2251 bushels string beans			50	112 75
154- bushels lima beans			45	69 52
785} bushels tomatoes			45	423 48
1881 bushels onions			75	141 38
842 bushels potatoes			50	421 00
27 bushels sweet potatoes			65	17 55
142 bushels cucumbers		1	00	142 CO
381 bushels cucumbers, early		1	00	**38** 50
12 bushels squash			50	6 00
420 bushels squash, Boston marrow			50	210 00
250 bushels parsnips			70	175 00
10,383 heads lettuce			02	207 66
13,500 heads celery			03	405 00
7,015 heads cabbage			06	420 90
114 heads cauliflower			05	5 70
33,318 ears corn, sweet			0.75	249 88
156 egg plants			06	9 36
1.319 pumpkins			04	52 76
4.722 musk melons			05	236 10
40 water melons			30	12 00
930 peppers			01	9 30
1.090 bundles corn stalks			03	32 70
80 bushels grapes, 2.800 pounds			01	112 00
671 bushels apples			50	33 75
43 baskets pears, stewing			40	17 20
17 baskets pears, early			75	12 75
26 baskets pears, Bartlett			75	19 50
2 baskets pears, Flemish beauty			50	1 00
24 baskets pears, Lawrence			50	12 00
40 baskets pears, Seckel			75	30 00
1.355 quarts strawberries			10	135 50
472 quarts currants			08	37 76

40 quarts gooseberries	06	2 40	
12 quarts blackberries	10	1 20	
657 quarts raspberries	10	65 70	
			$5,083

1885

MEDICAL DIRECTOR'S REPORT. *To the Honorable*

Board of Managers :

In accordance with the organic law of the institution, I have the honor to submit for your consideration the following annual report :

TABLE I.

SHOWING THE ADMISSIONS.

	365	371	736			
Absent on probation November 1st, 1884	4	3	7			
Absent by elopement November 1st, 1884	2		2			
Total				371	**374**	745
Cases Admitted-						
First admissions	141	109	250			
Not first admissions	14	13	27			
Admitted as an inebriate	1		1			
Total cases admitted during the year				156	122	278
Total cases under care during the year, including those absent on probation and by elopement				527	496	1,023
Cases discharged	75	63	138			
Cases recovered	25	17	42			
Cases much improved	8	14	22			
Cases improved	21	13	34			
Cases unimproved	15	17	32			
Cases discharged as inebriates	4	2	6			
Cases discharged as opium habitues	2		2			
Died.	37	19	56			
Total cases discharged and died during the year				112	82	194
Absent by elopement October 31st, 1885	3		3			
Remaining in the Asylum October 31st, 1885	412	414	826			
Total				415	414	829
Average number resident during the year				393.	396.4	790

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TABLE III.

RECEIVED ON FIRST AND SUBSEQUENT ADMISSIONS.

NUMBER OF THE ADMISSION.	CASES ADMITTED.			TIMES PREVIOUSLY RECOVERED.		
First	134	108	242			
Second	12	11	23	7	3	10
Third	2		2	3		3
Fourth		1	1		3	3
Total of cases	148	] 20	268	10	6	16
Total of persons	147	119	266			

TABLE IV.

AGES OF PERSONS ADMITTED FOR THE FIRST TIME.

AGES.	AT FIRST ATTACK OF INSANITY.			WHEN ADMITTED..		
Fifteen vears and less	6	6	12	1	1	2
From 15 to 20 vears	10	9	19	4	5	9
20 to 25	15	16	31	9	7	16
25 to 30	8	13	21	13	16	29
30 to 35	14	10	24	17	13	30
35 to 40	9	11	20	9	12	21
40 to 50	23	15	38	34	27	61
50 to 60	10	5	15	24	19	43
60 to 70	8	2	10	16	6	22

70 to 80	3		1	**4**	6	2	8
Over 80 years					1		1
Unknown	28		20	48			
Total		134	108	242	134	108	242

1885

NATIVITY OF PERSONS ADMITTED.

PLACES OF NATIVITY.

New Jersev	62	55	117
New York	24	12	36
Pennsylvania	6	1	7
Maine	1		1
Vermont		1	1
Massachusetts		1	1
Connecticut	1	1	2
Georgia	1		1
Tennessee	1		1
Maryland.	1		1
District of Columbia.	3		3
Canada	1		1
England	4	4	8
Scotland	2	1	3
Wales	1		1
Ireland	19	27	**46**
Sweden	1		1
Germany	12	12	**24**
Switzerland	1	1	' 2
Austria	1		1
Poland	1		1
U. S. of Colombia	1		1
West Indies		1	1
Unknown	**3**	2	5
Total of Persons	147	119	266

RESIDENCES OF PERSONS ADMITTED.

PLACE OF RESIDENCE			
Bergen	6	14	20
Essex	12	5	17
Hudson	19	12	31.
Hunterdon	40	35	75
Morris	9	5	14
Passaic.	12	13	25
Sussex	5	4	9
'Union	19	17	36
Warren	9	10	19
Middlesex	2		2
New York	13	3	16
Pennsvlvania	1		1
Maryland		1	1
Total of persons	147	11	266

TABLE VII.

CIVIL CONDITION OF PERSONS ADMITTED.

NUMBER OF **THE ADMISSION**	UNMARRIED			MARRIED			WIDOWED.			UNKNOWN.	
First	52	47	99	6	43	11	8	18	26	6	6
Second	6	4	10	4	7	11					
Third	2		2								
Fourth								1	1		
Total of persons	60	51	111	72	50	12	8	19	27	6	6

OCCUPATIONS OF PERSONS ADMITTED.

Males.

Baker	1
Blacksmiths	3
Bookkeeper	1
Builder	1
Carpenters	5
Cigarmaker	1
Clergyman	1
Clerks	6
Cooper	1
Currier	1
Draughtsman	1
Druggists	0
Farmers	21
Gardeners	
Laborers	21
Lace paper maker	1
Lawyer	1
Leather finisher	1
Locomotive engine drivel	1
Machinists	4
Manufacturers	3
Mason	1
Merchants	5
Miller	1
Mill operatives	2
Miners	2
None	15
Organ tuner	1
Painters	2
Peddlers	2
Physicians	4
Piano varnisher	1
Printers	3
Railroad flagmen.	2
Reporter	1
Rubberworker	1
Sailmaker	1
Salesman	1
Saloonkeeper	1
School boys	3
School teacher	1
Seamen	4
Stablekeeper	1
Stenographer	1
Stone cutter	1
Students	2
Superintendent of Mails.	1
Tailors	2-
Telegraph operator	1
Unknown	1
Vegetable dealer	1
Veterinary surgeon	1

Wagonmaker	1
Total of persons	**147**

1885

TABLE VIII.—CONTINUED.

Females.

Art editor	1
Domestics	10
Dressmakers	8
Florist	1
Housekeepers	61
Housework	13
Mill operatives	6
Music teacher	1
None	**14**
School teachers	2
Stewardess of steamship	1
Unknown	1
Total of persons	119

TABLE IX.

REPORTED DURATION OF INSANITY BEFORE LAST ADMISSION.

PREVIOUS DURATION.	FIRST ADMISSION TO ANY HOSPITAL.			ALL OTHER ADMISSIONS.			TOTAL.	
Congenital	2		2				2	2
Under one month	10	8	18	4	2	6	14 10	24
From one to three months	6	12	18	1	3	4	7 15	22
From three to six months	9	9	18	2	1	3	11 10	21
From six to twelve months	11	4	15	2	1	3	13 5	18
From one to two years	19	12	31	10	1	11	29 13	**42**
From two to five years	13	14	27	10	10	20	23 24	**47**
From five to ten years	8	8	16	12	10	22	20 18	38
From ten to twenty years	6	6	12	8	9	17	14 15	29
Over twenty years	1	1	2	9	6	15	10 7	17
Unknown	5	3	8				5 3	8

Total of cases	90	77	16	58	43	10	148	120	268
Total of persons	90	77	16	57	42	99	147	119	266

1885

FORM OF DISEASE IN CASES ADMITTED.

FORM OF DISEASE.			
Mania—Acute	15	14	29
Chronic	35	28	63
Melancholia	45	39	84
Dementia—Acute	2		2'
Chronic	41	38	7,
Circular insanitv		1	1
General paralysis	10		10
Total of cases	148	120	268
Total of persons	147	119	266

TABLE XI.

PROBABLE CAUSES OF INSANITY IN CASES ADMITTED.

CAUSES.			
Moral			
Domestic trouble, &c	7	13	20
Adverse circumstances, &c.	9	1	10
Worry, &c		5	5
Overwork, &c	7	2	9
Love affairs, &c	2	5	7
Grief, &c		4	4
Fright, &c		1	1
Political excitement	1		1
Physical			
Intemperance, in drink	13	3	16
in opium	2		2
sexual	6		6
Puberty	1	1	2
Old age	8	4	12
Puerperal state		4	4
Lactation		1	1
Change of life		5	5
Masturbation	5		5
Insolation	9	3	12
Ill health	17	36	53
Privation, &c,	1	1	2
Hereditary influence, &c.	2	3	5
Congenital defect, &c	3	2	5
Arrest of development	1		1
Injury to head	11	1	12
Apoplexy	4	2	6
Chorea		1	1
Syphilis	3		3
Disease of heart	1		1
Epilepsy	5	7	12
Unknown	30	15	45
Totals	148	120	268

SHOWING THE DURATION OF INSANITY ON ADMISSION IN THE ADMISSIONS, DISCHARGES AND DEATHS DURING YEAR 1884—5.

CLASS.	ADMISSIONS.			DISCHARGES. RECOVERED.			DISCHARGES. REMOVED, IMPROVED OR OTHERWISE.			DEATHS.		
First class												
First attack and within three months on admission	15	14	29	14	4	18	6	7	13	2	1	3
Second class												
First attack above three and within twelve months on admission	22	12	34	6	5	11	9	8	17	6	1	7
Third class												
Not first attack and within twelve months on admission	8	15	23	5	5	10		4	4	1	4	5
Fourth class												
First attack or not, but of more than twelve months on admission	96	75	171		3	3	29	23	52	24	13	37
Fifth class												
Congenital	2	1	3									
Unknown	5	3	8					2	2	4		4
Total	148	12k	268	25	17	42	44	44	88	37	19	56

TABLE XVII.

CASES DISCHARGED BY RECOVERY OR DEATH. FORM OF INSANITY.

FORM OF INSANITY.	RECOVERIES.		DEATHS,	
Mania—Acute	153	181	2	3
Chronic	13	43	8	11
Melancholia	810	187	3	10
Dementia—Acute	1	1		
Chronic	1	122	5	27
General paralysis		4		**4**
Circular insanity			1	1
Total cases.	25 17	42 37	19	66

TABLE XVIII.

CAUSES OF DEATH.

CAUSES.			
Exhaustion of chronic mania	1	4	5
Exhaustion of melancholia	4	2	6
Exhaustion of chronic dementia	1	1	2
Brain disease, with paralysis		1	1
Brain disease, with myelitis tuberculosis and pleurisy	1		1
Brain disease, with heart disease	1	1	2
Brain disease, with kidney disease, &c.	1		1
Brain disease, with heart and kidney disease		1	1
Brain disease, with kidney and stomach disease		1	1
Brain disease, with enteritis	3	1	4
Brain disease and senile decay	1	3	**4**
Senile decay, brain softening, brain atrophy and diarrhoea	1		1
Cerebral hemorrhage	8		8
Epilepsy	2	2	4
General paralysis	4		4
Phthisis pulmonalis	2	1	3
Cancer of stomach, liver, &c.	1		1
Graves' disease and cerebral hemorrhage		1	1
Typhoid fever, with epilepsy	2		2
Typhoid fever	3		3

Rupture of aneurism of arch of aorta	1		1
Total	37	19	56

Ascertained by post mortem examinations in the cases of twenty males and five females.

1885

AGES OF THOSE WHO DIED.

AGES.		AT TIME OF FIRST ATTACK.			AT TIME OF DEATH.		
15 years and less	2		2	4			
From 15 to 20 years	3		3	6	1	1	2
20 to 25	2			2	3		3
25 to 30	1		2	3	1	1	2
30 to 35	3		3	6	3	3	6
35 to 40	2		2	4	6	3	9
40 to 50	6		3	9	6	2	8
80 to 60	5		1	6	5	3	8
60 to 70	5			5	6	3	9
70 to 80	4		1	5	5	1	6
Over 80 vears			1	1	1	2	3
Unknown	4		1	5			
Totals		37	19	56	37	19	56

TABLES
SHOWING OPERATION OF ASYLUM FROM AUGUST, 1876, TO NOVEMBER, 1884.

I.

Sexes	99.9	853	1,782

II.

Ages between 5 and 10	1	1	2
Ages between 10 and	10	2	12
Ages between 15 and	45	36	81
Ages between 20 and	196	176	372
Ages between 30 and	241	249	490
Ages between 40 and	209	162	371
Ages between 50 and	130	134	264
Ages between 60 and	69	62	131
Ages between 70 and	23	26	49
Ages between 80 and	5	5	10
	929	853	1,782

DOMESTIC STATE.

Married	422	403	825
Unmarried	428	322	750
Widowers	53		53

Widows		117	117
Divorced		**5**	**5**
Unknown	26	6	**32**
	929	853	1,782

1885

Less than 1 year	317	324	641
More than 1 year	152	98	250
More than 2 years	99	75	174
3	56	43	99
4	38	30	68
5	44	41	85
6	29	27	56
7	27	18	45
8	26	21	47
9	12	10	22
10	21	31	52
11	8	7	15
12	14	13	27
13	9	9	18
14	3	9	12
15	11	19	30
16	5	6	11
17	8	3	11
18	2	2	4
19	3	4	7
20	9	9	18
21	2	3	5
22	1	4	5
23	2	4	6
24	1	1	2
26	4	5	9
26		1	1
27	2	1	3
28		2	2
30	3		12
31	1	1	2
33		1	1
34		1	1
35	2	2	4
36		1	1
40	2	1	
45		1	1
Unknown years.	16	16	32
	929	853	1,782

DURATION OF DISEASE BEFORE ADMISSION.

The statistics of mental condition at the date of discharge have been carefully prepared. In our judgment those persons discharged as recovered have regained their normal mental condition, and often have profited by their residence in the Asylum, not only by regaining their mental equipoise, and making marked physical improvement,. . but also in the fact that the days of their convalescence have been

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days of education, and their views of life and its relations have been broadened by contact with others, and by general experience here.

Those discharged as much improved are such persons as have returned to their homes and occupations with sufficient mental control to perform their duties well, and not present under ordinary circumstances evidences of aberration. In this class are several who will probably go on to recovery, and others who fall but little below their normal standard. Under improved, we have classed many who are valuable as workers, but whose insanity is frequently apparent others who will not occupy themselves much, if at all, but are able to live with their friends —cases decidedly improved by their residence here.

By the law of the State, habitual drunkards may become wards of the Chancellor, and on his order be sent to an asylum for care and treatment, to be supported by their friends as are other private patients. The number sent in this way is not large but form a distinct class resident here.

Others have been received on certificates of insanity, and have remained for varying periods ; such persons, and those addicted to the **use** of opium, in whom we have recognized no insanity, have been discharged as inebriates or opium habitues, and their personal statistics, beyond those of admission, are not included in the tables.

It is not a gratifying list of results, unless the material from which they have been obtained is considered.

Inspection of Table 16, giving duration of disease before admission, furnishes the necessary data for such consideration, and we ask for it careful attention. Its inspection emphasizes the advice iterated and reiterated by all engaged in the care of the insane, that all so afflicted should be early removed from the surroundings in which their insanity has manifested itself, and be put under medical care and control amid other surroundings ; that the proportion of recoveries is in indirect ratio with the duration of insanity preceding admission, and the necessary length of residence in an asylum in direct ratio, and that the hope of recovery recedes with each month of duration.

It is singular that an institution unrivalled in its location, construction and appointments, a standing testimonial of the liberal sentiment of the State toward one of the most unfortunate classes of its citizens, should be devoted largely to the least appreciative members of that class.

marked to render the diagnosis certain ; yet as they suggested typhoid, such precautions as were deemed necessary were maintained. On the tenth and thirteenth other cases followed which displayed more typical symptoms, and were diagnosed as typhoid. Still others followed at irregular intervals until the tenth of September, when the last occurred. The number of cases was twenty-three, thirteen patients, eight attendants, and two persons resident in the center. Of the thirteen patients, five enfeebled by previous disease died, the others recovered, though one suffered from a second attack. Of the other cases all but one recovered ; that one suffered a second and severe attack and is not yet convalescent.

Post-mortems made in the eases of two of those who died displayed. the characteristic intestinal lesions of the disease.

While some of the eases were mild and irregular in type, others were severe, and as a whole manifested all the characteristics of the disease, and most of the complications liable to ensue.

Six attendants who left the house in a state of indisposition more or less marked, are believed to have sustained attacks of varying in-tensity. But one case occurred among the women, and though among the men several developed on one ward, others were scattered about (in seven wards), yet fourteen occurred in the third and fourth buildings.

The source of the difficulty is believed to have been the filter beds on the north side of the house,_____ feet distant from the building, about which the source of danger derived from a former case probably remained, and, quickened to virility by the Summer heat, was brought to the house by the winds and unusually prevalent mists. The removal of these beds (long a constant source of unpleasant odors and grave apprehension), which is now advancing to completion, will, we hope, secure the house from a recurrence of the invasion.

In April, 1883, the convict insane —so called — belonging to the counties authorized to send their insane here, who had previously been under treatment in the Asylum at Trenton, were transferred to this institution.

While some of them are undoubtedly persons whose crime is the outgrowth of their insanity, and are not more troublesome than other insane persons of the same class, others properly belong to the criminal class, with all their propensities in full vigor, in some eases Intensified by their insanity. For such persons the ordinary wards of

an asylum are not a fit place, since, aside from the disagreeable associations thus imposed upon persons of a more correct life, they are not fitted by their construction for the detention of such crafty and deter-mined men. For them there should be provided, either in connection with the prison or with one of the asylums, a ward or wards of greater strength and security for their safe care and detention. The need of such provision is also great for such persons as escape conviction for crime on the ground of insanity and are sent to the Asylum for care and treatment — really in most cases for care and safe custody — since, as has been proven, they can too easily effect their escape from a building not intended for such detention. Persons of these classes escaping must be for a series of years carried upon the books of the institution as inmates, since no authority exists for their discharge, and if apprehended simply as escaped persons, no further charges being made against them, an opportunity must be afforded for their return without further order.

By the addition of Hunterdon county, in March of this year, this institution receives public patients from nine counties in the northern portion of the State. By the transfer of the patients belonging to that county from the Asylum at Trenton the number which this Asylum was intended to accommodate has been reached; further additions must be provided for by the use of portions of the house as dormitories which were not so intended — certain of the sitting-rooms and exercise galleries — and the number which can be so accommodated is necessarily limited. Since the reception of patients from other States was terminated in June by your decision, the number of non-resident resident patients has gradually decreased by discharge and death, and will continue to do so.

Early in January supervisors were appointed for each floor or department on each side of the house, making eight in all. Their duties are, as is implied in the names, the general duties of supervision under the direction of their superior officers, and they act as the medium of communication between the medical staff and the attend-ants and patients. It is their duty to maintain careful oversight of the department entrusted to them in every particular — cleanliness, warmth, ventilation ; to see that the attendants are kind and faithful in the performance of their duties; that they exert themselves to interest and amuse the listless; to console and comfort the depressed, to restrain and control the excited and restless, to soothe and relieve

the sick and the dying, and that they give to the patients under their charge the attention which the circumstances of each require. It is also their duty to carry medicines ordered by the physicians and see that they are properly administered; to obtain supplies, including clothing and minor articles, and see that they are adapted to the necessities of those who desire them ; to make the return of temperature from each ward at stated times — three (3) times each day; to see that food is properly served and order maintained during its consumption ; to introduce the newly-arrived and calm their fears and anxieties ; to attend services and amusements as required, and to keep the physician in charge fully informed concerning all the interests of their respective departments. They are required each morning, before half-past eight, to bring to the office, on a blank prepared for the purpose, the statistics of employment for the preceding day, and of amusement, sickness, restraint, and kindred matters for the preceding twenty-four hours ; to report the reception or discharge of patients from different wards, with accounts of any altercations which may have occurred, and any requests for absence preferred by the attendants. Their duties are many and responsible, and their faithful performance adds much to the comfort and security of those under their charge. This increase of the supervisory force has ensured a more careful enforcement of the rules and regulations governing the institution. In January also the number on the watch at night was increased to seven (7) persons, three (3) being on duty on each side of the house and one in and about the administration building, who makes regular rounds both in and outside. The duties of those employed on the wards were so much modified as to constitute them night attendants. On the first and second departments, where they are more liable to meet with violence, two are on duty together, and on the third and fourth departments, where the patients are generally of a more orderly class, only one is employed.

It is their duty to pass through the wards assigned to them once each hour, and more frequently if necessary. On such visits they bestow attention on all who need it. Often much time is consumed in soothing and reassuring those who are frightened and harassed, or nervous and restless, and much patience and tenderness are required. The position is a most responsible one, and the increased comfort and security of the house from this additions leads to the belief that still more extended attention at night may be desirable.

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Such patients as, from sickness or other causes require it, are provided with special night attendance.

In April a man and wife were employed as attendants on one of the wards devoted to the more quiet class of men. The presence of a woman apparently added to the comfort and pleasure of the occupants of the ward, and in September another couple were employed on a ward where are gathered many of the feeble and infirm men who require much care and attention. Very recently still another married couple have been located on a ward of the medium class.

Nothing unpleasant has occurred in either case ; the patients have exerted themselves to ensure agreeable conduct, and no removal has been required on account of improper behavior and language, while some who were. careless and irregular have exercised a good degree of self-control. In each case the wives were known to be worthy of confidence, and capable and experienced in the care of patients. We fear that the difficulty of securing men and their wives fitted for such positions will form the greatest bar to the extension of such employment.

The change of management and method has increased the usual restlessness among the male attendants and many changes have taken place, yet one-half of those employed prior to the first of January are still on duty. The exigencies of the year, especially those arising during the presence of typhoid fever, have at times rendered the careful selection of attendants impossible, yet as a body they have been careful, faithful and efficient in the performance of their duties, which are always confining and often very trying.

No wards have been considered " open wards," yet free ingress and egress has been allowed to such patients as have been considered fitted for the privilege, and thus much has been added to their contentment and enjoyment.

Visits have been freely allowed, not only to those who were believed to be recovered, and those who might reasonably be expected to make direct mental gain by such an arrangement, but also to those who might be able to remain with their friends, and those known to be unable to remain permanently at home, to whom a few days or weeks of such change would give pleasure and relief.

We believe that the system is one of much value and that its good results far outweigh the inconvenience which it occasions the officers of the institution.

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During the year twenty-five post-mortem examinations have been made, several of them of very interesting character. Of all, extended records have been kept. In most cases friends have kindly and readily accorded permission; in some it has been impossible to obtain it, either from absence, inaccessibility or unwillingness.

While such examinations are of great service for the direct information gained of gross lesion in the brain and other organs, they could be much more fully utilized, and the knowledge of insanity advanced, by the appointment of a special pathologist who should devote his time to careful microscopic study of the diseased tissues, and to collating his observations and conclusions. The patient daily toil of such investigators continuing through a series of years is gradually increasing our knowledge of pathology, laying foundation for a more exact system of treatment and a better classification of diseases of the brain, and only in this way can these results be obtained.

Such investigations have been carefully and systematically pursued under the supervision of Dr. Gray at the Asylum in Utica, New York, and the recognition of advances made in this branch of pathology recently accorded by able scholars in Europe attest the value of the researches there conducted. The work demands constant, patient, long-continued effort, and cannot be prosecuted with any advantage amid the frequent interruptions and distractions incident to a medical officer's life; only by the slow accretion of facts extending through a series of years can any progress be made.

The weekly dance has been maintained through eight months, and, as formerly, has been a popular form of entertainment; not that the number of patients directly participating is at any time proportionally large, but that the music, the motion of the dancers, and the general animation of the assembly are very entertaining to those looking on. Through a series of years we have found it the form of amusement most favorable for the insane — reference being had to the ease and economy of its maintenance, and the amount of interest elicited and pleasure afforded.

Another evening is devoted to amusements of a varied character, to lectures illustrated by the oxyhydrogen light and those without illustration, to readings, theatrical representations, minstrels, delineations and anything of a kindred character which can be arranged or obtained. This also extends during eight months.

Since the first of January a card party has been attended each

Wednesday evening by such of the patients as were in condition and inclined to do so. All the minor games have been provided — cards, dominoes, checkers, backgammon, chess, sentences, and even jackstraws have occupied the attention and whiled away the hour.

These parties have been attended by the officers and their families, and have been conducted as nearly as possible on the ordinary basis of social gatherings of such character.

On Sunday evening also, since the first of January, an hour has been devoted in the amusement room to the singing of hymns, and has proved an agreeable gathering, and a great relief to many to whom the Sunday evening hour brought only depressing thoughts of absent friends and intensified longings for home and its enjoyments. Attendance is voluntary and increases rapidly. All entertainments are directed by the medical staff, each one of whom has assumed a particular duty or duties in connection with them, and all join in contributing to their success.

Religious services have been conducted each Sunday through the kindness of Rev. Drs. Merritt and Erdman and Rev. Messrs. Parker, Foulke, Holloway, Brennan and Crawford, resident in Morristown and vicinity, and representing five denominations. In this way members of these denominations, which are those most largely represented in the house, have had an opportunity to listen to the service with which they were most familiar, and all have had an opportunity to be instructed and edified or consoled and comforted.

From the amount appropriated by your Honorable Board for the purpose, have been purchased the standard journals devoted to Alien-ism, which are published in this country and England, and some of the most prominent medical journals, also various medical books which we trust will prove the nucleus of a medical library.

We have received, through the kindness of Rev. Dr. Merritt, of Morristown, from the Bible and Prayer Book Society of New York, fifty prayer books and fifty hymnals for the use of patients in public service, and find that the interest in the service has been deepened by their use. We have also received packages of paper and periodicals from various interested friends, intended for distribution on the wards.

Dr. Edward C. Booth was acting Assistant Physician from January 1st until May 7th, when he was appointed Assistant Physician.

Dr. William L. Russell was appointed Third Assistant, January 1st, and entered on his duties January 7th. May 7th he was appointed Second Assistant.

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Dr. Edward K. Morton was appointed Fourth Assistant, January 1st, and entered on his duties January 4th. May 7th, was appointed Third Assistant. July 1st, resigned his position to enter on private practice.
Dr. Charles P. Wertenbaker was appointed Fourth Assistant, May 14th, and entered on his duties May 20th. July 1st he became Third Assistant.
Dr. William Mabon was appointed Fourth Assistant, October 1st, and entered on his duties October 5th.
We have cause for congratulation and thankfulness that no valuable lives were sacrificed during the prevalence of the fever ; that for two months no new cases have occurred ; that apparently we are now relieved from it; that the general health of the house is excellent, and that no serious accident or suicide has occurred during the year.

Very respectfully,

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ELEVENTH ANNUAL REPORT

OF THE MANAGERS AND OFFICERS

OF THE STATE ASYLUM FOR THE INSANE

AT MORRISTOWN, NJ

For the Year Ending October 31st, **1886**

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OFFICERS OF THE ASYLUM

MANAGERS.

GEORGE A. HALSEY Newark.
HIRAM C. CLARK, Newton.
JAMES S. GREEN, M. D., Elizabeth.
JOSIAH MEEKER, Succasunna.
THEODORE R. VARICK, M. D., Jersey City.
EDWARD T. BELL, Paterson.
HUGH C. HENDRY, M. D., Newark.
WILLIAM S. BANTA, Hackensack.
JOHN W. JACKSON, M. D., Rockaway.
N. W. VOORHEES, Clinton.

OFFICERS OF THE BOARD OF MANAGERS.

President, HON. GEORGE A, HALSEY.
Vice-President, JAMES S. GREEN, M. D.
Secretary, EDWARD T. BELL.
Treasurer, EUGENE VANDERPOEL.
Warden, M. B. MONROE.

MEDICAL OFFICERS.

E. C. BOOTH, M. D. Medical Director.
WILLIAM L. RUSSELL, M. D. Assistant Physician.
C. P. WERTENBAKER, M. D. Second Assistant Physician.
WILLIAM MASON, M. D. Third Assistant Physician.
D. W. MCFARLAND, M. D Fourth Assistant Physician.

MANAGERS' REPORT.

To His Excellency Leon Abbett, Governor of the State of New Jersey:

The Board of Managers of the State Asylum for the Insane at Morristown, N. J.," in obedience to the law, would respectfully submit this, their

ELEVENTH ANNUAL REPORT,

and with it the annual reports *of* the Medical Director, the Warden and the Treasurer, to which they refer for a full and itemized statement of whatever pertains to each department.

The number in the Asylum on the thirty-first day *of* October, 1885, was eight hundred and twenty-six (826) patients, of whom four hundred and twelve (412) were males, and four hundred and fourteen (414) were females.

There were received during the year Nov ember 1st, 1866, one hundred and ninety-nine (199) patients, of whom ninety-three (93) were males, and one hundred and six (106) were females.

There have been under treatment during the year, including those on probation and by elopement, one thousand and twenty-eight (1028) patients, of whom five hundred and eight (508) were males, and five hundred and twenty (520) were females.

Of these forty(40) were discharged recovered, twenty (20) much improved, seventeen (17) improved, nineteen (19) unimproved, and sixty (6o) have died. There were discharged as inebriates, five (5) ; as opium habitues, two (2).

There were remaining in the Asylum, October 31st, 1886, eight hundred and fifty-seven (857) patients, of which number there were four hundred and fifteen (415) males, and four hundred and forty-two (44^2) females ; nine (9) were absent on probation or by elopement. Of these, seven hundred and twelve (712) were public patients, and one hundred and forty-five (145) were private patients.

The annual inventory of the personal property belonging to the

Asylum, taken by the Warden and two appraisers, as required by law, amounts to one hundred and twenty-one thousand, seven hundred and seventy-seven dollars and fifty-nine cents ($121,777.59), being an increase of four thousand eight hundred and forty-five dollars and thirty-four cents over the year 1885.

The Treasurer in his report states that the receipts from all sources, including the balance of twenty thousand eight hundred and five dollars and thirty cents ($20,805.30) on hand November 1st, 1885, amounts to two hundred and seventy-six thousand four hundred and seventy-five dollars and forty-four cents ($276,475.44), the payments of the same period amount to two hundred and fifty-three thousand nine hundred and fifty-eight dollars and forty-two cents leaving a balance in his hands on the thirty-first day of October, 1886, of twenty-two thousand five hundred and seventeen dollars and two cents ($22,517.02).

Of these receipts, eleven thousand one hundred and thirty-one dollars and forty-one cents ($11,131. 4 1) were from convict patients, and sixty thousand four hundred and nineteen dollars and forty-seven cents ($60,419.47) were from private patients.

On the fifth of March, 1886, Dr. Edwin E. Smith resigned the position of Medical Director, to take effect the first of June following. The resignation was accepted. On the second day of April, 1886, Dr. Edwin C. Booth was elected Medical Director ; Dr. William L. Russell, Assistant Physician ; Dr. C. P. Wertenbaker, Second Assistant Physician ; Dr. William Mabon, Third Assistant Physician ; and Dr. D. W. McFarland, Fourth Assistant Physician.

The health of the house during the last year has been good. No case of typhoid fever has appeared among the patients, and but one case among the employees. A few cases of diarrhoea occurred during the hot weather, but they were not more numerous or severe than in former years.

During the month of January,1886, a fire occurred in one of the buildings of the Essex County Lunatic Asylum, which deprived that institution of a part of its accommodation for its inmates. The Board of chosen freeholders of Essex County, applied to this Board for the temporary reception of forty-six patients, who were received on January 11th, 1886, and were returned to Newark May I 4, 1886, excepting two patients, who had died at this Asylum.

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The question of the disposal of the sewage of the Asylum, has received the serious and attentive consideration of this Board for the last three years, and they have made " a most careful investigation " of the subject " under the light of the advice and experience they " could " receive before they finally " acted " in the matter."

The disposal of the sewage by allowing it to spread itself upon the surface, as practiced by Dr. Buttolph then Superintendent in 1883, having proved a failure on account of the odors arising there-from, and the possible pollution of the adjacent streams, the Board of Managers applied to the State Board of Health for counsel, and employed Professor Charles McMillan, Civil Engineer of the College of New Jersey, to take charge of the work. After a careful investigation, embracing the amount of sewage to be disposed of, the tract of land to be used, and the peculiar surroundings, and neighborhood of the Asylum, this Board had nearly concluded to adopt the plan popularly known as the " Waring System." After the Legislature had granted an appropriation of $30,000, solely " to establish a system of sewerage " for this Asylum, a letter of warning being received from your Excellency, based upon a report of Mr. Lebbeus Ward, of the State Board of Water Supply, which was ad-verse to the plan contemplated by this, Board of Managers, the Board called before them Mr. Lebbeus B. Ward, Dr. Hunt and Professor Charles McMillan, to advise them in the matter, on June 11th, 1886.

Mr. Ward's report was read and explained at length by himself. Dr. Hunt and Professor McMillan stated their-,opinions, which were in opposition to those of Mr. Ward. This Board could obtain no satisfactory information from Mr. Ward on the question, " Will your plan prevent the pollution of the adjacent streams,, and at the same time be unobjectionable in the matter of disagreeable odors ?" Mr. Ward had no facts to show that the effluent of his - system, would be fit to pass into the stream of potable water.

In September, 1885, a committee of this Board visited Bryn Mawr, Pa., to ascertain whether the system placed there by George E. Waring, C. E., to dispose of the sewage of a large Hotel (capacity 300 guests) had worked satisfactorily. After careful investigation and inquiry, the committee were satisfied that the system was a success, and did not pollute any of the neighboring water supplies,

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but that its effluent (but very slight in quantity, although the Hotel was full) was odorless, tasteless and clear. To be more thoroughly assured that this Board of Managers were right in their conclusions, they dispatched a committee to Lenox, Mass., June 14th, 1886, at which place the so-called " Waring System " has been in operation since 1876. The sewage system of this town was thoroughly investigated in every particular, and the committee found that the plan had worked, and was working satisfactorily, except when it had been temporarily overtaxed by surface and roof-water.

A committee of this Board also visited the Asylum for the In-sane, at Norristown, Pa. The system for the disposal of the sewage at that place, was in a measure, like the one suggested by Mr. Lebbeus S. Ward. It consists of an intermittent discharge of sewage, by means of a syphon from a receiving basin of seventy-five thousand gallons capacity, every six hours over about seven acres of surface, and into trenches through a proposed garden plot. The trenches into which the discharge had been standing for a few days, were very offensive. This odor would not have been tolerated by the neighborhood of this Asylum. This plan was less objectionable at Norristown, because the surface of land used is isolated, secluded and separate from dwelling houses. No effluent from this system could be obtained, as the discharge pipes empty below the surface of the water in the creek. The engineer in charge informed the committee that the effluent was not sufficiently pure to be passed into the water of a stream used for drinking purposes. This Board after hearing the report of their committee, determined to adopt the plan proposed by Professor McMillan, and approved by Dr. Hunt of the State Board of Health. The work has been pushed forward as rapidly as circumstances would permit, and will be entirely completed in the Spring of 1887. Enough has been done, or will be done before the Winter sets in, to take care of all the sewage of the Asylum with-out offence to the waters of the adjacent stream or neighboring properties. There has been expended upon this work the sum of seventeen thousand five hundred and eighty-seven dollars and twenty-nine cents ($17,587.29), leaving a balance of the appropriation of twelve thousand four hundred and twelve dollars and seventy-one cents ($12,412.71), with which the Board expects to be able to complete the system of sewage to the satisfaction of all concerned.

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The Board of Managers have appended to this report the report of Mr. Lebbeus B. Ward on this subject, also the report of Professor Charles McMillan, Civil Engineer in charge of the work of sewerage at this institution.

All of which is respectfully submitted.

GEORGE A. HALSEY,
HIRAM C. CLARK,
JAMES S. GREEN,
JOSIAH MEEKER,
THEO. R. VARICK,
EDWARD T. BELL,
WILLIAM S. BANTA,
HUGH C. HENDRY,
JOHN W. JACKSON,
N. W. VOORHEES,

Managers.

Dated at the State Asylum for the Insane at Morristown, New Jersey, November 11th, 1886.

REPORT OF Prof.. Chas.. McMillan

PRINCETON, N. J., June 15th, 1886. *Hon. George A. Halsey, Newark, N. .7.:*

MY DEAR SIR: The printed communication of Mr. L. B. Ward, C. E., to the Governor of this State, is intended, I suppose, to be a condemnation of the plan of sewage-disposal which, at my suggestion, your Board of Managers selected as the appropriate one for the Morristown Lunatic Asylum. Mr. Ward's letter has been laid before you formally by the Governor, together with a letter of his own expressing a doubt as to the correctness of your plan, cautioning you to make sure that your plan is right before spending the appropriation given you by the Legislature, and advising you to consult Mr. Ward about the matter.

The Governor's warning cannot be lightly passed over, and I there-fore desire, as far as facts will allow me, to meet the statements on which the Governor's disapproval may in part be based; to re-call to your attention an essential though auxiliary feature of your plan, which is apt to be lost sight of in a warm discussion of the principal features ; and to draw for your information such a comparison of our scheme and the one advocated by Mr. Ward as the facts may warrant.

We have now had an interview with Mr. Ward, and we ought, therefore, to be in a position to weigh the relative merits of the two schemes.

I. I wish to say, in the first place, that Mr. Ward's claims for the superiority of the method of sewage-disposal by Irrigation over all others are entirely too sweeping.. The proper method to be adopted in any particular case can only be determined when all the local conditions have been considered. Irrigation may, under favorable circumstances, be the best method to adopt ; but the same may be said of other methods., That Irrigation has merits, no one denies. That it is apt to miscarry in unfavorable weather, even Mr. Ward ad-

mitted in your presence ; and to claim for it absolute freedom from offence to the senses, and that it exercises a beneficial effect on the health of the neighborhoods, is, in my estimation, carrying the argument beyond the limits of serious consideration. It were quite sufficient for the purpose to claim that, after many years' experience with this method of sewage-disposal and a close scrutiny of its hygienic effects on the immediate neighborhoods of sewage fields, irrigation with sewage, when properly managed, is found to be absolutely harmless. A similar statement, however, can be made in regard to other approved methods of sewage-disposal.

The intimation contained in the letter to the Governor that Irrigation is, in the opinion of sanitary engineers the best method of disposing of sewage appears to me as a hasty and unjust representation of the profession at large in an attitude of sponsorship for an opinion to which, I have good reason for believing, they will not subscribe without important qualifications which will entirely destroy the force of Mr. Ward's statement.

The most recent expression of a very high authority bearing on this very matter, is in the report of the Massachusetts Drainage Commission, from which I quote this paragraph : "" In fine, we believe this system to be admirable, if only a number of somewhat intractable conditions, some of which we have indicated, can be con-trolled. Where all things can be made to work together in harmony, it offers a reasonable probability of at least reducing the expense of getting rid of sewage to a minimum. Where an arrangement can be made to operate it in connection with filtration, so that private agriculturists may take the sewage in such quantities, and at such times, as they may find best for their crops, and, when not de-sired, can turn it upon filter beds, we think there would be a fair prospect of attaining the largest measure of utilization with the least possible complication and expense."

This Commission, appointed to investigate the conditions affecting the purity of streams within the State of Massachusetts, after considering several processes, finally declares in favor of the system of *Intermittent Downward Filtration,* which is quite a different thing from that extolled by Mr. Ward.

Mr. Ward places before you **a** letter from Pullman, Ill., in substantiation of his views. Singularly enough, the very point which

forms the basis of Mr. Ward's condemnation of the sub-soil system, viz., the quality of the effluents, is covered in that letter by a confession of ignorance on the part of the writer. And yet this letter has been laid before you as evidence of the merits of irrigation with sewage.

I think you will remember my comments on the lameness of the evidence thus presented and on the *ex parte* nature of the testimony in regard to profits, &c. I now place before you a quotation from an editorial in *The Sanitary Engineer,* June 17th, 1886—one of the highest authorities on such matters in the United States. Speaking of the Pullman sewage-farm, it says :

" The most favorable accounts as to the profitableness of conducting a sewage-farm that we have seen have been those published regarding the one at Pullman, Ill., in which this farm, which has been assumed to have been conducted as a model sewage-farm, has been made shown to make a profit. A recent visit, however, to Pullman explained the reason of this alleged commercial success, which is due to the fact that the farmer manages the farm to raise crops and make money, only *utilizing as much sewage as he needed to promote the raising of crops.* In dry weather, and whenever no injury is done to standing crops, it is allowed to flow upon the fields. At other times it is either turned, during a part of the year, on a number of filter-beds or, as these too are cultivated in turn, it is allowed to run in a crude state into the lake through an open ditch."

What, I ask, is the value of the figures with which my skepticism was confronted, when weighed in the light of the above testimony of an impartial and competent observer ?

2. The statement that Irrigation is the only method which gives any financial returns whatever is entirely wrong.

3. The suggestion that you should dispose of the sewage of the Asylum by irrigation necessarily carries with it another suggestion, viz., that you should institute a sewage-farm in connection with the institution. Now it is quite an old precept that the establishment of such a farm is only warranted when there is a ready market for sewage grown produce. I know of no such market within reach of the Asylum. It may be that you will find a ready sale for your crops in Newark or New York, but I doubt it. It generally requires the lapse of many years before even a portion of a community will

become reconciled to the use of sewage-grown vegetables, knowing them to be such. As for using them at the Asylum, it would seem to be a very unnecessary and hazardous experiment. Your institution is a sanitarium, and the supplying. of its tables with sewage-grown produce will surely repel patronage, at least, until a general sentiment has become established in favor of such products.

4. It may not have any significance, yet the sentence in which Mr. Ward disposes of any popular.. objections which may arise against the establishment of a sewage-farm with its attendant complications in Winter, on lands near your Asylum, may be interpreted to mean that notwithstanding all that he has said, he has no very great confidence in the inoffensiveness of such an undertaking. He says, " As the Morristown Asylum is situated where land suitable for the purpose can be acquired upon reasonable terms and within convenient distance, where neither the comfort of neighboring residents nor the value of adjacent property can be injuriously affected,. &c." If all that he claims for Irrigation be true, why this concern about the comfort of neighbors and the value of property ? What can be more clear than that if Mr. Ward's representations in his letter and orally before your committee be true, irrigation with sewage not only cannot be an offence to a neighborhood, but must necessarily prove to be an inestimable blessing to the inhabitants thereof. (See quotations from Corfield.)

5. Mr. Ward states that the effluent from a sub-soil system is impure, and unfit to be mingled with ground-water or with the con-tents of a stream of potable water. I don't know how he comes by his knowledge, but I suspect that it is largely speculative. His statement would seem to imply that the effluents from irrigation-farms are pure enough to be discharged into streams of potable water with-out producing pollution. The Massachusetts Drainage Commission, already referred to, recommends, as a measure of precaution, that no sewage effluents be cast into such streams.

It seems to have been assumed in the communication to the Governor that the water of Todd Brook is potable water, else where would be the appropriateness of declaring against the discharge of effluents from sub-soil systems into *potable streams* Now, the purity of a water is determined by chemists and biologists, not by engineers. Unless, therefore, Mr. Ward can fortify his opinion by

the declaration of an expert in water analysis like .Professor Leeds, who, you will remember, analyzed the head-water of Todd Brook, it seems to be unnecessarily antagonistic to your interests to assume that the Asylum is about to pollute the water of *a potable' stream.* Moreover, as part of the general question, it is proper. to ask are the standards of purity held by the commission of which Mr: Ward is a member to be applied to the cesspools throughout the region above your sewage-field; or is the Asylum the only source' from which it is proposed to guard the waters of this brook ? The rational and equitable method of treating such matters is to guard a stream by law from *every* source of pollution, and in that case; the standard of purity of effluents should be legally established and. announced, and not be merely a matter of speculation.

Another question, quite pertinent, arises from Mr. Ward's proposition that you should convey the sewage to some field further away from the Asylum than any property which you now possess. It is, who will protect the Asylum from litigation resulting from real or imaginary invasions of the rights of mill-owners in your immediate vicinity ? I understand that you have already been threatened with a lawsuit for an assumed deflection of the natural course of a part of the contents of Todd Brook. Will **Mr.** Ward guarantee *your* defense ?

In proposing to utilize some of the fields now held by the Asylum, we do not pretend to be able to deliver effluents from the pro-posed sewage-field in the condition of drinking water. To require us to do so, is to perpetrate the same injustice against the Asylum which was found to result from the earlier applications of the edicts of The Rivers Pollution Commission, the practical effect of which was to require many places to render their effluents many times purer than the streams into which they were delivered. We do claim, however, that Todd Brook will not be injuriously polluted ; that whatever impurities may be found in the discharge from the sewage-field will, in that locality, be harmless, and that they will quickly disappear under the action of natural causes ; and, in any event, that whatever may be the nature of these impurities, they will be proportionately so far below those which reach the brook from other sources that they may very justly be disregarded until other sources of pollution have been eliminated.

H. Referring, now, to the plan which was adopted by your Board and placed in the hands of your committee to execute, it is proper to remind you that the plan did not consist solely of a system of subsoil filtration as your opponents have assumed it to be. Had these gentlemen taken a little more time for the inquiry, and, permit me to add, a different method, they would have known more of the real nature of the proposed scheme. I assume that the chastising by the Governor was a necessary part of the interview, but I cannot comprehend the purpose of queries by his professional adviser which, beside wasting time, can be construed into an attempt to examine me in the principles of my profession. I certainly did not suppose that he was there for that purpose.

It has all along been part and parcel of the scheme and so under-stood by your Committee on sewers, the Warden and myself, that the command of ample relief areas should be secured both on the north and the south sides of the lower portion of your grounds, where sewage utilization could be resorted to whenever it was deemed expedient. It was understood that these areas would give the terminal sewage-field all the rest that would be required.

Instead, therefore, of planning, as your critics have assumed, for the continual dosing of the sewage-field, we have, from the beginning, contemplated giving it frequent periods of rest and opportunities for thorough recuperation from any possible overcharge —not because we considered the contemplated charge an overdose, but as a measure of precaution; also, because Mr. Monroe, with an eye to economy, desired to utilize as much of the sewage as he might find convenient or profitable. Mr. Ward's proposition is to employ irrigation all the year round (what you are to do with it in winter, he has not stated) ; we propose to utilize it only occasionally, or at such times as it may be most beneficial, and when it will not interfere with the farming operations of the Asylum. This is an extremely important difference ; and I unhesitatingly say that in this particular our plan is far more rational and safe from miscarriage than that suggested by Mr. Ward. But the use of these relief areas cannot be designated as sewage-farming in any reasonable meaning of the term.

The amount of relief which the sewage-field will thus obtain can be inferred from the fact that there are at least 15 acres of tillable

land, exclusive of the sewage-field proper, within reach of your sewers. Under these circumstances, I consider it absurd to go at present beyond the confines of the Asylum grounds for the disposal of the sewage.

III. Passing, now, to an entirely different subject, viz., the immediate needs of the Asylum, and the possibility of installing a sub-soil system as originally proposed, I desire to say :

1. That the fields commanded by the new sewers will, with careful management, take care of the sewage for a considerable time, .except in wet weather, when you will probably be obliged to resort to the gravel field. I am referring to the temporary arrangements. The fields on which Mr. Monroe will utilize sewage temporarily and in connection with the permanent system would be greatly benefited by underdrainage with tile drains. With the facilities you have at the Asylum, this would probably not cost more than $110.00 per acre. By purchasing material in bulk, the cost might be brought well within $100 per acre. Everything that has thus far been planned and executed will subserve equally well the needs of both temporary and permanent systems. I may acid that the relief areas are clay lands, and that, therefore, they will be greatly improved, from an agricultural point of view, by underdrainage.

2. The great delay in appropriating the money for carrying out your plans, and the very natural indecision which has resulted from the Governor's criticism, renders it highly improbable that any large portion of the sub-soil system can be carried out this year. Indeed, from the rate at which the present work is progressing, it is highly improbable that anything worth mentioning, in the way of laying absorption tile, will be accomplished before cold weather sets in. Fortunately, if the flush-tank and main carrier (the delivery pipe to the gravel field) are completed, together with such sub-drains as may be found to be necessary, you will be in condition to use the gravel field as a filter area throughout the winter. If this be accomplished, I should regard your sewage question so far solved that the rest, viz., the introduction of the sub-soil features could be deferred with-out any detriment whatever until Spring. The surface and sub-soil systems are so very much alike in their appliances that the conversion of the former into the latter can be made to consist, practically, of laying the necessary carriers and absorption tile, that is, when

such a step has been properly provided for. A large portion of the grading can be deferred until you are ready to introduce the pipes. I am quite confident that no harm can result from the operation of the temporary expedient which I have indicated, and which seems to be the only means of relief left you by your opponents for the coming winter.

I am, dear Sir, with great esteem,
Yours, very sincerely, CHAS. McMILLAN.

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Hon. Leon Abbett, Governor of New jersey,

Sir: I have considered your inquiries as to the means and methods for treating, utilizing, or otherwise disposing of the sewage of the State Asylum for the Insane at Morristown, which will most effectually and certainly accomplish the following results : First, remove the causes of sickness now prevalent at the Asylum connected with faulty disposal of sewage, avoiding however the creation of a similar danger to health elsewhere. Second, abate the public nuisance and injury to the health of the neighborhood chargeable to the same causes. Third, protect the potable waters of the state from pollution due to the introduction of crude or imperfectly purified sewage either directly into the streams or into the general body of ground water by which the flow of the streams is maintained.

It is a general proposition confirmed both by long practical experience and by the latest scientific discoveries, and now universally admitted by sanitary engineers, that surface irrigation of growing crops or of cultivated land is the most economical and efficient of all methods of disposing of sewage where purification is sought. It is superior in economy to all other methods of purification in its installation and maintenance and is the only one which makes any financial return whatever. Its efficiency consists in preventing, absolutely when properly managed, not only all offence to the senses due to putrefactive changes in the sewage but also the possible injury to health arising from the two potent causes now in action at the Asylum ; the storing up of the sewage, and its subsequent admission while still a putrescible liquid and chemically unchanged into the general drainage of the country. The writer of most eminence on the treatment and utilization of sewage at the conclusion of an exhaustive treatise on the subject says : " Finally, with regard to irrigation farming the facts that we have brought together seem to us to show clearly that it satisfies the three conditions

which we have laid down ; the sewage is purified, a profitable agricultural return is ensured, and the health of the neighborhood is not endangered." (Corfield : Digest of Facts, p. 337). The same writer cites observations to prove that irrigation farming, properly carried out, may be a positive advantage to the health of neighbor-hoods, a result to be expected from the purifying action exercised upon the surrounding atmosphere by the luxuriant healthy vegetation supported upon sewage farms ; it being authoritatively stated that the health of children living in the midst of irrigated districts, far from suffering, has actually improved.

The difficulty, growing out of the extent of land required for the complete disinfection and purification of the sewage, which interferes with the adoption of the system of sewage farming for large cities and towns does not need to be considered here, as the Morristown Asylum is situated where land suitable for the purpose can be acquired upon reasonable terms and within convenient distance, where neither the comfort of neighboring residents nor the value of adjacent property can be injuriously affected ; and as there is an ample variety of soil and surface to select from, and as the distribution of the sewage owing to commanding site of the building will be perfectly effected, without mechanical aid, by gravitation, I should not hesitate to recommend the agricultural use of the sewage by the method of surface irrigation as the best means of purifying and disposing of it, having regard to all the points laid down at the beginning of this letter.

The system of irrigation here specified differs vitally from that hitherto in operation at the Asylum and known there by the name of surface irrigation. The sewage has been allowed to drain in excessive quantities over a rough, stony and impervious surface of limited area and rapid descent; the time occupied in its passage and the distance passed over being too short to effect any useful purification. Experience has shown that to purify sewage by this method it must flow fifteen hundred feet in a thin film and small quantity over an irrigation area graded naturally or artificially to a gentle slope of one in two hundred to five hundred. The flow should not continue longer than three days at a time. These conditions have not been complied with, and the ordinary aids to purification afforded by abundant vegetation and a drained and well-aerated soil have moreover been wanting.

I have, at your request, given the system known as sub-surface irrigation as careful an investigation as time would permit, visiting for that purpose the Bryn Mawr Hotel where a large plant of this kind has been installed since 1881.

It is necessary to point out that this system differs in principle from irrigation proper as described above. In that, the organic 'matter of the sewage diffused over the surface of the ground is rap-idly converted by the agency of micro-organisms into food for plants; light and air being indispensable factors in effecting this change. As the partially purified sewage sinks into the earth this action becomes less energetic, and probably ceases at about the depth of twelve inches, depending much upon the aeration of the lower stratum or subsoil to which pipe drains, where laid, usually act as air ducts.

In sub-service irrigation the absorption tiles used for distributing the sewage are buried to the depth of eight or ten inches. At this depth the effect of the sunlight and open atmosphere is lost and the work of purification by microorganisms is correspondingly diminished. The process thus degenerates into a form of filtration, resulting in an impure effluent water which should be denied admission into potable streams and is equally unfit to mingle with the ground water.

Very Respectfully,
LEBBEUS B. WARD.
Jersey City, May 29th, 1 886.

REPORT OF PROF. CHAS. MCMILLAN.

PRINCETON, N. J., Nov. l7th, 1886.

The Board of Managers of the State Asylum for the Insane at Morris Plains, N. .7.

GENTLEMEN :—Having been informed that you desire to incorporate in your Annual Report a report on the progress of the new sewerage works of the Asylum, I have the honor of stating that the scheme of sewerage which you ordered to be executed has been carried out so far that,' practically, there remains only the laying of the absorption tile with the necessary carriers to make the works complete. All the rest of the work, though lacking, here and there, some slight detail, may be regarded as finished in all essential particulars.

As your Report is addressed to the Legislature of the State, and is intended for publication, it may be desirable to describe briefly your scheme of sewerage with a more particular description of such parts of the general plan as will enable its salient features to be readily comprehended.

This scheme is essentially that proposed by me in September, 1885, as described in your last Annual Report. A few features have been added as measures of relief and safety, but they do not in any wise alter the original design.

I have prepared the accompanying sketch showing the relative location of the different parts of the general plan with the view of facilitating references to them.

The new sewers tap the old ones below the lowest points of discharge from the building and run thence, one along the north side and the other along the south of the ridge at the head of which the Asylum is situated, until they reach the old boundary of the grounds, where they are united. The foreground of the Asylum is a prominent ridge sloping gently towards Morris Plains, but having comparatively steep side slopes in the neighborhood of the building.

The latter feature, and the fact that the old sewers run down these side-slopes and are therefore at the points of interception far below the crest of the ridge, render the separation of the new sewers, as described above, a necessity.

There is an advantage, however, in their separation, in that it enables them to reach some of the outlying fields on the sides of the ridge, and to make these areas available for surface irrigation. These fields, which are quite distant from the building and unfrequented by patients, can thus be fertilized with sewage without expense to the Asylum, or, they can be used as relief areas whenever, in the opinion of the Warden, the sewage-field proper requires rest. Should they be thus temporarily used, it is extremely improbable that any complaint would arise.

A catch-basin is built in each line, wherein the foreign matters cast into the closets by patients will be arrested, and whence they can be removed by the usual methods or with an odorless excavator.

The sewers are constructed of culled Akron pipes, six and eight inches in diameter, and are provided, at intervals averaging a little less than three hundred feet, alternately with man-holes and lamp-holes from which every run of each sewer can be inspected. The south sewer is eight inches in diameter throughout ; while on the north side, the flow being less, eight-inch pipe is used only as far as the catch-basin, the rest of the line being of six inch pipe.

Immediately below the junction of the new sewers are situated two tanks wherein the solid particles of the sewage will be separated from the liquid by the natural settlement of the solids assisted by the straining of the sewage through screens. The completed de-sign will have four such tanks (fifty-three hundred gallons each), coupled in pairs in such a manner as to admit of their being used al-together or alternately in pairs, as circumstances may from time to time require. It was not thought necessary to introduce the additional tanks at present, as other parts of the work called for the concentration of our available force of masons upon them, and the tanks already constructed were considered a sufficient provision for the needs of the coming winter.

The outlets of the settling tanks are united in a man-hole whence the clarified sewage can be turned by a " switch" either into the ad-

joining flush-tank or out upon the surface of the field immediately below the tank.

The flush-tank is constructed of brick laid in hydraulic mortar, and is plastered on the inside, and on the outside as far down as the frost line, with Portland cement. Its flushing capacity is about eighty thousand gallons. It will discharge its contents through a delivery main of ten and twelve inch pipe into a distributing basin, or well, situated near the middle of the so-called gravel field, which is the sewage field of the system. Provision has been made for emptying the flush-tank otherwise than through the siphon, and for regulating the volumes and the frequency and rates of its discharges.

The sewage-field has been graded to the necessary slopes for laying the absorption tile and has been underlaid with drain pipes mainly for the purpose of promoting the ration of the different filter beds. The area which is commanded by the central distributing basin of the gravel field is about seven acres. The remaining avail-able slopes and a small portion of the sloping field above them, amounting altogether to about three acres, will have sewage delivered to them from the man-hole, which is both a distributing basin an an air-vent of the delivery main.

Inasmuch as some objections were raised by others than myself to the use of the gravel field for cleansing sewage, on the ground that it was composed of unsuitable materials, it is proper to say that the trenching in this field has demonstrated that the objections were not well-founded.

It is intended to put the flush-tank, the delivery main and the sewage field into operation before the close of this season, resorting in the absence of absorption tile, to intermittent surface filtration. The sewage will be the very best means of protecting the masonry from frost ; moreover, the use during the winter of the sewage field and the works leading thereto will be valuable to us as a test of their action. I do not believe that, with the appliances we have for controlling the sewage, its application to the surface of the gravel-field for so short a time can, by any possibility, become the cause of complaint.

The features to which I refer as having been added to the original plan are, the underdraining of that part of the clay field which lies between the flush-tank and the gravel field, and the utilization

of the depressed corner of the gravel field, otherwise useless, by converting it into a level tract whereon the effluents from .the sub-drains of the clay field and a part of those from the gravel field can be subjected to a refiltration, whenever necessary. The sloping clay field referred to is a relief area for the gravel field. As it is designed to use it as a sewage-field only occasionally, its surface will be covered at times with fissures, or sun-cracks, which at the first application of the sewage will admit the liquid unchanged deep into the soil ; it was therefore thought best to prepare the small level filter bed for catching and filtering the effluents from this field.

The following is an approximate estimate of the piping which will have been laid by the close of the season :

Twelve inch sewer pipe ..... 546 feet.

Ten inch..... " " ..... 580 feet

Eight inch .' " **3,430** feet

Six inch " " 3,500 "

Four inch drain tile 2,400

Two inch " " 14,000

I remain, Gentlemen, very respectfully,

Your most obedient servant, CHAS. McMILLAN.

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TREASURER'S REPORT.

To the Board of Managers of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN :—The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from November ist, 1885, to October 30th, 1886, inclusive :

DR.

Balance on hand November 1st, 1885			
To amount received from the State Treasurer for county patients	$35,029 70	To amount received from the State Treasurer for convict patients	11,131 41
To amount received from the State Treasurer for sewer appropriation	22,500 00	To amount received from sundry counties for the support of county patients	122,781 86
To amount received for the support of private patients.			60,419 47
To amount received for hides, fat, rags, &c			3,807 70
			$20,805 30
			255,670 14
			$276,475 44

CR.

By amount paid Warden's orders	$253,958 42
Balance in Treasurer's hands	22,517 02
	$276,475 44

EUGENE VANDERPOEL, *Treasurer.*

Dated State Asylum for the Insane, Morristown, N. J., November 5, 1886.

We hereby certify that we have examined the Treasurer's accounts, and compared the same with his books and vouchers, and find them, in accordance with the above statement, correctly stated and balanced.

EDWARD T. BELL,
JOHN W. JACKSON,
N. W. VOORHEES., *Committee.*

WARDEN'S REPORT.

To the Board of Managers :

At the close of another year in the history of this Asylum, I respectfully submit for your consideration the Eleventh Annual Re-port of financial and business operations of the Institution for the fiscal year ending October 31st, 1886.

In addition to the regular duties of my office, I have undertaken the continuation of many improvements within the building, of its fixtures, of the grounds, and upon the several cottages and out-buildings connected with the Asylum property, a description of which is herewith submitted, and I trust the same will meet with your approval as it did of the Committee's, whose advice and sanction was my authority for such improvements.

FINANCIAL.

The average number of patients during the year was eight hundred and forty-five.

The number belonging in the institution at this date, eight hundred and sixty-six.

The receipts from all sources (exclusive of the special appropriation for the new sewer) including a balance of $20,738.56 in the hands of the Treasurer, at the date of my last report, amounts to $253,908.64. The total disbursement for current expenses to present date is $238,342.94, leaving a balance of the current fund in the hands of the Treasurer, of $15,565.70.

The amount of subsistence and fuel now in store, is estimated at $14,175.29.

Accounts due, $38,936.88.

Making a total of *$68,677.87,* against which we have liabilities amounting to $20,486.16.

In consequence of a disastrous fire occurring at the Essex County Asylum in January last, the uninjured portion of their building became over-crowded, and application was made to your Board for

the temporary admission of forty-six male patients into this Asylum, until their building could be repaired, which request was granted, and accordingly on January 11th, 1886, that number was brought to this Institution, accompanied by a committee of the Chosen Freeholders, and cared for until May 14th, 1886, when they were returned to the County Asylum at Newark.

FARM, GARDEN AND DAIRY.

The farm land cultivated, consisting of about three hundred (300) acres, including pasture fields, has been somewhat reduced and limited during the past season in consequence of the opening of a number of trenches and ditches for the new sewer system, through cultivated fields upon which we depended for crops. Notwithstanding this interruption, however, the liberal use of fertilizers applied last year, and during the past season, gives us a very fair profit on the result of the year's labor. The returns from this department are given in detail in the appendix, and valued at $ 17,262.36.

The expenditures for all purposes, including hay, straw and feed, for the use of teams and stock were, $ 11,686.07.

Leaving us a net profit above expenses of $5,762.90.

For which result we are also indebted in a great measure, to the employment of patient labor in gathering and caring for the crops.

IMPROVEMENTS.

In addition to the usual repairs to the fixtures in the machine shop and to the steam-heating and ventilating apparatus, &c., three lines of 2½ extra heavy pipe have been put in behind the boilers and connecting with feed-water pipes running from pumps, thereby forming a feed-water heater. The object being to raise the temperature of the feed-water with waste heat from the boilers. This experiment has proved fairly successful, —considerable difference in the temperature of the feed-water being apparent, with consequent gain in the reduction of consumption of fuel. Connecting flues have been built between the Exhaust Fan chambers, and the flue in rear of the boilers connecting with the smoke stack, in which have been placed dampers, which are opened when a stoppage of the Fans occur, thus insuring a continuous exhaust from the sewers.

The walls in rear of boilers, and the north-end wall, were consid-

ered unsafe; they were taken down and rebuilt in a solid and substantial manner.

The governors on the engines have been refitted with machine cut gears of forged steel, also with new flanged pulleys and counter shafts. The connections with valves for operating the steam dampers, have been brought down from the Mangle or Ironing Room in-to the boiler room within easy reach of the firemen, who are now able to clean their fires, with steam up to its highest, and damper open, thus taking the dust and dirt from Furnaces, and conducing to economy, by keeping steam up with less difficulty.

Waste of Relief valves have been placed on heating mains at most remote points from boilers, the object being to prevent the accumulation of water in the mains, and to give the water of condensation a chance to return by its own gravity, instead of being forced out. The result has been better circulation with lower initial pressure.

Last winter heating radiators were placed on 4–4 north side ; that particular ward being more exposed than any of the others, and with less facility for heating. In this connection, I would suggest that heaters of the same pattern be placed on 4-1 and 4–2 south side, as we find it quite difficult to heat this portion of the building, during extreme cold weather, more steam being used on these two halls than other parts of the building. These heaters require comparatively but very little steam to operate them, having proved economical on the floors where they have been used, as shown by great saving of steam in the ducts, and the reduction of steam required to heat the lower floors of the building.

About 150 feet of piping for steam heating has been put in since last winter to replace worn out pipe. Corrugated Iron Plates have been placed over the return pipe and water mains in rear of Boiler House, and a considerable portion of the duct between that locality and Kitchen has been furnished with the same. The plates for completing the entire duct being on hand and ready to put down during the winter. The passage in the rear of boilers has been flagged in a substantial manner. There yet remains a considerable amount of this class of improvement, or repairs to be done, the most important of which is the machine shop floor, being greatly in need of a Cement or Stone floor to replace that of wood, which is in very bad condition.

The Feed Pumps at the Boiler House, being of an old pattern and in use eleven years, require a thorough overhauling every summer, new valves and plungers being necessary, on account of their imperfect working. This make of pumps is not adapted for pumping hot water as well as some of other makers. Feed-water should be at boiling point in order to get good results in the boilers. Pumps of improved pattern can now be obtained that will pump water at a high degree of temperature, with less than one-half the steam required to run those we have in use.

The boilers during the past summer have been thoroughly inspected, inside and out, and cleaned. They are all in good condition, and with proper care, will last for many years yet. The fire-linings will have to be renewed next summer, one or two, perhaps, before that time. The dividing walls between the boilers, are badly burned out in some places, and are in a weak condition generally. It will probably be necessary to rebuild some of them very soon.

In my quarterly report of February, 1885, your attention was called to the additional expense for fuel entailed by the use of the Ashcroft Grate bars, which had been supplied to the furnaces of four boilers during the summer of 1884. The tests then made were under unfavorable circumstances, on account of the defective draft, and the prejudice of the firemen, who insisted on keeping thicker fires than were necessary, and also did not give the matter careful attention, owing to the extra labor required in more frequently attending to the fires. The results then shown, however, was a large percentage in favor of the other grates and small coal. After the exhaust fans for ventilating the sewer had been placed in the base of the stack, the draft for the furnaces was restored so that they had the full benefit of the smoke stack, and during the past summer I have caused to be made additional tests of the comparative value of these fixtures, and the Engineer reports as follows : " During the month of June last, fifteen days of which we used grate coal, consuming one hundred and fourteen (114) tons, at a cost of $387.60. The last fifteen days of the month, Buckwheat Coal was used, consuming ninety-six (96) tons at a cost of $216.00. A difference in cost of fifteen days consumption of $171.60."

This test was made with two boilers running, which is the number

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generally in use during the warm season. The saving in the use of small coal may then be stated as follows :

Cost of fuel for running two boilers with Ashcroft Grates for thirty days, $575.20.

Cost for running two boilers with Tupper Grate bars for thirty *days,* $432.00.

It will thus be seen that we have $143.20 in favor of the Tupper sectional grate bars, and small coal, when only two boilers are used. In the winter season, six boilers are generally in use, so that if we calculate six months with two boilers in use, and six months with six boilers in use, we could save $3,436.80 by abandoning the Ash-croft fixtures, and using the Tupper Sectional Grates, and small coal.

I would therefore recommend that a change in these fixtures be made without delay.

The lowering of the heating coils originally located in the top of the ventilating stacks was commenced few years since ; this being carried on during the summer months in connection with other work throughout the basement. Three remained to be completed, and these were finished during the past summer. It has been found that a better circulation was obtained in the coils when they were placed nearer the base of the stacks, and also easier of access, for repairs, &c. Attention is called to the heating flues running through the rear wall of the building to the rooms on the fourth floor. In cold weather it is very difficult to get a proper circulation of heat through them. Last winter the experiment was tried of continuing the tin pipe from the radiators in the air chambers to the registers above, through the flue, with very good results.

Much discomfort and annoyance has been experienced by the men employed in the Boiler House, owing to the leaking condition of the roofs of the coal vaults, over which the railroad was located, **with** openings on the track, to discharge the coal into the vaults below ; and through which the surface water found its way after storms into the vaults, flooding the floors of the Boiler House. During the past summer, the loose earth has been removed from the arches, and a concrete covering composed of broken stone, ashes, and gravel, mixed with coal tar and pitch, to the depth of fifteen inches, has been put down, and we now feel assured that a positive remedy has been applied. (3)

THE CENTRAL, AVENUE

was opened for use last December, but not completed; work upon this improvement was again resumed in the early spring, and about the same number of patients were employed as last season. As much has been accomplished during the past year, as could be expected, considering the many other enterprises which have claimed my attention.

As an encouragement and reward to those employed in the various departments, a number of the patients were permitted to attend the exhibition of the Doris Menagerie and Circus, at Morristown, at the expense of the institution, during the summer, an amusement which many of them looked forward to, and now speak of as a great pleasure.

PROTECTION AGAINST FIRE.

Swinging hose racks have been conveniently located on all the wards throughout the building, and each supplied with from 125 to 15o feet of linen hose, which at all times is connected with the water main in each wing, and ready for immediate use. Wrenches to turn on the water are in possession of the attendants, who are instructed as to their use, in case of necessity.

THE CARPENTERS.

Under the head of improvements I propose to mention some of the more important items, without going into details of all the work accomplished by each department. I therefore enumerate among the important work of the carpenters the cutting away of old fixtures, and making new seats, bath tubs and flush tanks in the center water closets and new wash tubs in laundry; storm sash in exercise rooms of the wings, the same being necessary on account of these rooms being used for dormitories; tables for dining rooms, sash for hot beds and green house, additions to stables, two summer houses, renovating and building additions to four cottages occupied by employees; also repairing furniture and general repairs throughout the buildings; Fairbanks' stock and hay scale, of ten ton capacity, with platform 20xi1 feet, rack or enclosure for stock, and small house to protect weigher in stormy weather.

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THE PLUMBERS

have been engaged in making general repairs to the steam, water, gas pipes and fixtures ; fitting up radiators for the upper floors of the Institution, and in general repairs at the gas works. Among the other important work accomplished by this department may be mentioned : Covering steam and hot water pipe, building grease traps, setting steam traps in boiler house, (for returns from kitchen, tea rooms, &c.) putting in place new cooking apparatus, fitting up swinging hose racks, and extending water pipe to connect for use in case of fire, throughout the building, disinfecting sewer, and renewing steam and return pipes throughout the building, disinfecting sewer, and renewing steam and return pipes throughout the air passages.

THE PAINTERS

deserve credit for the accomplishment of many improvements in their line during the year. All the buildings upon the premises have been repainted, including the workshops, mattress-room, bed-rooms, laundry and bakery. Twelve hundred and seventeen (1217) lights of glass being among the repairs ; this item alone would startle an ordinary householder. In addition to the above may be stated, painting of all the bath and wash rooms of the institution, kalsomining and decorating parlors of the wards, and refinishing and varnishing all the repaired furniture from the carpenter shop ; also decorating and papering rooms of the Front Center building.

MATTRESS ROOM.

The full list of articles made and repaired in the Mattress Room and Shoemakers' Shop, will be found stated in detail in the appendix, and shows that the employees engaged there have not been idle during the year.

THE GAS WORKS.

Two men are constantly employed in the Gas House ; and there has been consumed during the year, (including the amount used in the Laundry for heating irons) five million five thousand and seventy, nine hundred and ten (5,570,910) cubic feet of gas. The total cost of which amounted to four thousand, one hundred and eight dollars and ninety-seven cents $4,108.97), from which it will appear that our gas has cost us less than seventy-four cents per thousand cubic

feet, without crediting the coke and gas tar returned from the works.

THE SEWING AND DRESS-MAKERS' ROOMS

furnish the Institution with all that is required to be made of dresses and underclothing, for both sexes of the patients ; also bedding, linen, &c.; a full list of which appears in the appendix. The value of the services of the employees of these departments may be safely classed among the most important, as the returns will show.

THE TAILOR SHOP.

The tailors have not kept a record of the number of articles repaired during the year, except as they are charged upon a day-book; but their work, I have no doubt, has been quite as profitable to the institution as it was important and useful.

TIN SHOP.

The employees of this department have contributed their share of usefulness in the working of the institution. A detailed list of the many articles made and repaired in this shop would occupy more space than we can spare at this time, and I will therefore only enumerate a few articles made in the greatest numbers :

Sixteen large tea kettles, four hundred bread pans, twenty-four drip pans, twelve six quart soup pails, ten large kettles, one hundred diet cups and flats, forty dinner boxes, one hundred and fifty three gallon fruit cans, forty-eight large square pans, twelve fourteen quart tin pails, sixty butter boxes, twelve large wash bowls; fitting up canopy and tin duct connected with the chimney to ventilate and carry off odors and the steam from the kitchen; roofing cottages, tin water leaders; repairing cooking apparatus, clocks, sewing machines, coffee pots, water pails, gutters, &c., &c.

THE BLACKSMITH

shoes the horses, repairs wagons and farm implements, sharpens and . repairs tools, &c., &c.

THE MASON

is constantly in demand for general repairs on the wards and buildings.

THE BAKER

furnishes the table with over nine hundred (900) loaves of bread daily, besides a considerable quantity of pastry, in the shape of pie, cake, pudding, &c., &c.

THE BUTCHER

prepares the beef, mutton, lamb, poultry and pork in such quantities as are required by the cook, and for a family of nearly 1200 it can readily be understood that his office is no sinecure.

THE NEW SEWER.

An effort was made late last fall to lay the pipe for the north new sewer, so that temporary arrangements could be made to divert the sewage during the winter from the cesspools on that side, but the work proving more difficult than was estimated, this was not accomplished, and we were obliged to defer operations until May, when the work was resumed ; and on this side 2200 feet of pipe has been laid. The trench for the pipe was of an average depth of five feet. In digging this trench, a great many large boulders were found, and several ledges of rock, one of about one hundred feet in length in the woods, and another where the catch-basin is located. These all had to be blasted out to a sufficient depth below the grade of the sewer line to have a bed prepared for the pipe to rest upon. Nine hundred feet from the beginning a catch-basin was located to collect all the larger articles that might pass through the sewer. Along the line of the sewer man-holes and lamp-holes were put in alternately, about three hundred feet apart. The south sewer was built from the line of the old sewer to the junction with the sewer from the north side, a distance of 2300 feet. Eight-inch pipe was used for this line instead of six-inch, as on the north side, on account of the greater quantity of water to be carried ; as all that is used in the laundry passes into the south sewer. Alternate man-holes and lamp-holes were also built on this line. The trench for the south sewer had an average depth of four feet. Boulders were also en-countered on this line, and some trouble was caused by the surface water which found its way into the trenches. Lines of pipes were laid from the junction of the North and South sewers to each settling tank, so that either could be used. From the settling tank,

pipes were laid to a man-hole with two outlets, one to the flush-tank, and another to the surface.

The flush-tank, a brick cistern fifty feet in diameter, and of a capacity of about eighty thousand gallons, has been built with an automatic Syphon, arranged to discharge the contents at periods very rap-idly into a twelve-inch pipe connected with the gravel field. Tile-drains five feet below the surface have been put in the field lying between the flushing tank and the gravel field. These drains are forty feet apart, and have a total length of about six thousand feet.

" Aerating " drains have been laid in the gravel field. They are about five feet below the finished surface of the field. Where the soil of the field was an open gravel, these drains were put one hundred feet apart, but where it was gravel and clay, they were forty feet apart, and have a total length of about ten thousand feet.

About seven acres of the gravel field have been graded to a uniform surface with the proper slope to give a regular grade to the distributing-drains when they are put in at an equal distance below the surface.

An acre of ground has been sub-drained, and graded to a level; to be used as a filtering basin, if at any time it may be necessary to turn the sewage away from the gravel field.

It was hoped that we would be prepared to put the new system in-to operation early this Fall and dispense with the old arrangement, which was so much complained of, and which carried the effluent in-to the streams ; but up to the present date, the work has not advanced sufficiently to permit us to make use of it. I am assured, however, that before the season closes, we shall be able to have a portion of the system in operation.

The diversion of the rain water on the North side, from the new sewer line, was a work involving a great amount of labor and care.

All the drains conveying rain-water from the different sections to the old sewer, were laid very deep, many of them from eight to twelve feet below the surface of the ground, to cut them off from the old sewer, and lay new outlets, giving sufficient fall to carry away the large amount of water that would fall on the area of surface covered by the North side, involving the digging of very deep trenches in the made ground used in the original grading around the building. All the drains in the rear of the building were discon-

nected from the sewer, and new drains laid underneath the building. To do this it was necessary to cut through the foundation walls, five feet thick, on both sides of the building, and also through the partition wall under the building. I am glad to state that the entire work is now accomplished, and as stated in my report of last year, that the disposition of the storm water of the North side is now also provided for by a separate system, disconnected from the sewer. This system of pipes from the North wing, discharge into the sewer at a point below the junction of the new sewer pipe with the old or main sewer.

Your attention was called in my report of last year to the inadequate supply of water from the sources supplying the upper reservoir. After consulting with the Committee, it was decided to increase the storage capacity of the lower reservoir by raising the dam ten feet higher, and excavating the material for the dam from its bottom. When this is done, the lower reservoir will have , storage capacity of five million gallons, and sufficient head to force the water to all parts of the building. We hope to provide in this way a sufficient storage of water, to carry us through a period of drought without resource to pumping from the stream on the north side of the building.

The amount of expenditures for these several improvements will be found under appropriate heads in - the abstract of accounts following.

The Annual Appraisement and Inventory of Personal Property in' and about the Asylum was made in the usual manner, and at the date fixed by the statute, and amounted to $121 *,777.59,* an increase of $4,845.34 above the appraisement of last year.

I was assisted by the Hon. John L. Kanouse, and Mr. Silas C. Halsey, to whom I am under great obligations for valuable assistance

ACKNOWLEDGEMENTS.

Besides the usual Magazines, Weekly and Daily papers, subscribed for by the Institution, we are indebted for the following papers which were kindly sent us by the Publishers :

The Jerseyman and True Democratic Banner, of Morristown; The Index and Iron Era, of Dover ; The Star of the Cape, of Cape May ; The Warren Republican, of Hackettstown ; The Hunterdon

Independent ; The Middlesex County Democrat ; The Metuchen Enquirer ; The Hudson County Journal ; The Courier of Camden, and The New Jersey Courier of Toms River. Also eight bound volumes of the Atlantic Monthly from Miss Wells, of Paterson, N. J.

REQUIREMENTS.

In compliance with the Act of April 7th, 1885, the following is submitted as an appropriate estimate of the amount of funds required from the State Treasurer, including salaries of resident officers, and for other purposes, for the next ensuing fiscal year, beginning on the first day of November, 1886.

Averaging the present number of patients in the house to be maintained, and estimating the present number without increase for that period : amount required for support and maintenance, $23,342.94.

The sum required from the State Treasurer, in addition to that received from private patients, and from the several Counties, including salaries of resident officers, is as follows :

Salaries of resident officers	$9,400 00
For support of Convicts	11,131 41
Allowance of one dollar per week for the support of each County patient, the average number of which was 677	35,204 00
Making a total of	$55,735 41

All of which is provided for by law.

The further amount required for which special appropriation would be necessary is, made up as follows : Farm, Barn and Out-building, $i1,200.00.

In closing this report, I desire to express My appreciation of the faithful services of those who have assisted me in the management, and who have so materially aided in the successful working of the several departments under my charge.

To the Managers I am under many obligations for kindly advice and support, and I trust that in my efforts to conscientiously and faithfully discharge the duties of my office, I have not failed in earning their approbation.

M. B. MONROE, Warden.

MEDICAL DIRECTOR'S REPORT.

To the Board of Managers :

GENTLEMEN — In compliance with the regulation of your Board, the following annual report is respectfully submitted.

By Table I it will be seen that there were 829 patients — 415 men and 414 women — in the Asylum at the beginning of the year, and 865—424 men and 441 women, at its close. T his increase of thirty-six patients over the number remaining at the end of the preceding year is somewhat less than the average annual increase for the last five years. This diminution is attributable to two causes — first, that twice within the period named, patients have been transferred in large numbers at one time to this Institution from the Asylum at Trenton, and secondly, that no patients have been received from other States, which furnished in former years an average of four-teen per cent. of the total number admitted.

The admissions for the year number 199 persons — 93 men and 106 women; a number smaller than the average annual admission in consequence of the two causes above enumerated. Six patients suffering from the effects of alcoholic excess and one from opium addiction were admitted to the benefits of the Asylum for longer or shorter periods, but being not insane were classed as " Inebriates" and " Opium Habitue" and will not, therefore, appear in subsequent tables.

One hundred and sixty-two (162) persons — 84 men and 78 women,— were discharged during the year. This aggregate includes five inebriates and two opium habitues, who will not enter into the statistics of the remaining tables, and sixty deaths. One woman was discharged twice during the year.

Forty persons — fourteen men and twenty-six women — were discharged " recovered," having apparently regained their normal health of mind, and being able to resume their former avocations. Twenty persons-eleven men and nine women — were classed " much

improved." These persons appeared very nearly restored to their usual mental condition, and have almost without exception taken up again their former occupations. Seventeen persons — twelve men and five women — were designated " improved," having gained more or less mentally during their residence at the Asylum. Nineteen persons — eleven men and eight women — were discharged without having made any perceptible mental advance, and having, in some in-stances, retrograded. Such persons were styled " unimproved." The table of statistics do not include forty-six men who were transferred January 11th, 1886, from the " Essex County Asylum for the Insane," in consequence of partial destruction of that Institution by fire. By arrangement with the County authorities these patients were regarded as temporary boarders. They were not formally discharged from the County Asylum, and they figure in the statistical tables of that Institution for the current year. Two died during their stay here, and the remaining forty-four were returned to New-ark at the completion of the necessary repairs, on May 14th, 1886.

It may be computed from Table II that, of the 192 persons admitted during the year, 105 — forty-nine men and fifty-six women — were admitted during the summer months (March to August inclusive), and 94 — forty-four men and fifty women — during the winter months (September to February). It will be further noted that the proportion of the sexes of those admitted is the same for the two seasons. The date of attack, which is of course, not identical with the date of admission, could be ascertained in only ninety-six cases, of which forty-six were admitted during the summer, and fifty during the winter season. Of the 192 persons admitted during the year, as seen by Table III, 167 — eighty-one men and eighty-six women were admitted for the first time ; twenty-two persons had been admitted more than once and had furnished twenty recoveries. These latter were mostly cases of melancholia and mania, the former disease largely predominating. The number of cases and of persons is the same, as no one was admitted more than once during the year.

By reference to Table IV it will be seen that the first attack of insanity in the patients admitted was most frequent in persons between the ages of twenty and forty, and next in frequency between the ages of thirty and forty. This showing is in accord with

the results obtained in this country, and is not unnatural in view of the fact that in these two decades the cause of insanity operative, are much more numerous than in the previous decade, and that the number of people living is considerably greater than in the latter periods of life.

An examination of Table VI shows that the nativity of persons admitted was ascertained in every instance. One hundred and one persons, or more than one-half, were natives of New Jersey ; twenty-six were born in other states of the Union ; and the remaining sixty-five were natives of foreign countries, Germany and Ireland furnishing about two-thirds of the number. It is a suggestive fact, that while the foreign-born population of New Jersey numbers only twenty per cent. of the total population of the State (as recorded in the United States Census of 188o), thirty-four per cent. of- the admissions to the Asylum for the last year were natives' of other countries. While the percentage of the foreign-born in the two sexes is almost the same in the State, the percentage of foreign-born women admitted to our care was thirty-eight per cent. of the total admission, and nine per cent. greater than that of the men.

Table XI exhibits the form of disease in the persons admitted. It will be observed that the classification adopted is somewhat different from that previous employed in this Asylum. It is essentially the classification of Krafft-Ebing, and is adopted on the ground of imparting a much more definite information regarding our cases, than that obtained by the old classification of Mania, Melancholia and Dementia, and their various sub-divisions. Melancholia in the classification here used is divided into two grades, according to the severity of the disease. The sub-division " passiva " covers all the lighter forms of the disease, and includes " melancholia agitata" and " resistive melancholia." The sub-division "attonita" designates a more profound impression on the central nervous system characterized by stupor and tetanic and cataleptic manifestations. All but two of the cases received were placed under the former sub-division. Mania has also been divided into two grades — a milder form of " maniacal exaltation," and a severe form of " frenzy " or raving madness." But three of our cases were adjudged sufficiently severe to be classed under the latter heading. The cases here styled " secondary monomania " are such as had their beginning in a distinct

acute attack either of mania or melancholia, and now, in a chronic and presumably incurable condition, are passing on to a terminal dementia. The cases of " terminal dementia " are divided into two classes, the apathetic " and the " excited." The term "primary monomonia " (the primare Verrucktheit of the Germans), is employed to designate a class of cases which plays an important *role* in every Asylum and are not satisfactorily classified, under the headings " chronic mania," " chronic melancholia," etc.. These cases are generally those with hereditary predisposition to insanity and are often the subjects of peculiarities of mental and physical organization. These mental peculiarities, developing of themselves by slow growth, or reinforced by other aetiological factors, as masturbation, uterine diseases, change of life,' &c., blossom into pronounced disease, marked in the great majority of cases by hallucinations and delusions. Such cases have not had an acute beginning in mania or melancholia, and although at times exhibiting depression and excitement cannot properly be classed as forms of these diseases. Primary monomaniacs do not generally suffer the rapid impairment of the intellectual faculties observed in those who are in a transitional state between an acute affection and terminal dementia, but on the contrary often preserve a high degree of acuteness to the last. Eighteen men and twenty-one women suffered from this form of in-sanity. Seven cases of general paresis " were admitted. One of these was a woman, the only case of this sex admitted for several years. The patient is thirty-five years old, and is •not hereditarily predisposed to insanity. A year prior to admission, without known cause, became unreasonable, irritated, and at times, violent. Eight months later began to show impairment of memory, and lack of judgment. Could do nothing that required calculation and reflection. Five weeks later became destructive and ruined dresses and other articles. At this time she developed delusions of grandeur, and declared herself to be very rich. She bought articles and left the shop without paying for them. She became rapid in her movements whereas she had previously been slow; she was talkative and confidential to strangers. On admission showed a slight inequality of the pupils and a difficulty in the articulation of certain words. She had violent fits of anger, occasionally, but was easily managed by tact. Now, seventeen months from the beginning of her attack,

she is easily excited, has a sense of well-being, a contented, smiling look, is constantly going home " to-morrow"---a time that never comes,— gives away watches, pianos, houses, &c.; is a great actress, and is worth a fabulous sum of money. She is occasionally filthy in her habits, and obscene in her language. Difficulty in articulation and tremor of the tongue have gradually increased and her gait is marked by dragging of the heel. The features of the disease **in** this case in no essential particular differ from those in many cases **of** men. The case is slowly but surely progressing toward the inevitable termination. It is believed that the occupations of the female residents of the counties sending their insane to this Asylum, do not favor the generation of this dreaded disease, which generally occurs among women of the more oppressed and abandoned classes.

In assigning the causes of insanity (Table XII), only the most probable and potent cause of the often several apparently conspiring causes, has been taken in each case. Of the moral causes, "domes-tic trouble," as usual, is the most important, existing in eight per cent. of the known cases. By the physical causes " ill health" has been regarded as the prime factor in twenty-one cases, or fourteen per cent. In many of the instances, malaria was very reasonably assigned as the cause of insanity. Insanity was caused by " intemperance in drink" in from eight to ten per cent. of the cases. Masturbation seemed to be the principal cause in six per cent., and epilepsy in five per cent. of the cases known. In eight per cent. of the cases, hereditary influence seemed to be the strongest element in the etiology. A careful study of the nature and extent of the hereditary influence was made in all the one hundred and ninety-two cases admitted where a definite history was attainable. In thirty-three of the eighty-nine male cases, and twenty-seven of the one hundred and three female cases, either nothing at all was ascertained regarding the ancestors of the patient or the person furnishing the history was deemed too ignorant of the facts to be depended upon. These cases are not taken into consideration. In the case of twenty men and forty-one women, careful inquiry of presumably competent per-sons revealed no hereditary taint, while thirty-six men, or sixty-four per cent., and thirty-five women, or forty-six per cent. of the cases under consideration were, directly or collaterally, hereditarily pre-disposed to insanity. Of the fifty-six men with a well ascertained_

history, six had insane fathers, six insane mothers, and in one case both parents were insane ; eight had insane brothers, and two, in-sane sisters ; seven had paternal and three maternal relations in-sane, exclusive of cousins. Of the seventy-six women, one had an insane father, and ten had insane mothers, and one an insane father, and an insane mother ; three had insane brothers ; six had insane sisters, and one had both a brother and a sister insane ; two had paternal and seven maternal relations insane, excluding cousins as be-fore. While the number of cases here reviewed is too small to render any deductions conclusive, it will be noted that our statistics tend to establish the fact that men are more likely to inherit insanity from their paternal, and women from their maternal ancestors.

Table XVII has been prepared for the purpose of showing the results in the cases admitted and discharged as affected by the duration of the disease before admission, and the number of attacks sustained. The percentage of recoveries in persons with a first attack, which, prior to admission, had lasted a period less than three months, is found to be, in this annual showing, forty per cent., or twice as large as the percentage of recoveries in the total admission, thus again emphasizing the importance of the earliest possible commitment to an Asylum in all cases of mental disorder.

Among the cases discharged, was that of a man who had become insane in consequence of the opium habit. He was fifty-four years old, and was without hereditary taint of insanity. He had taken opium continuously for twenty years, except for a short period several years ago, when a withdrawal of the drug was attended with an attack of insanity lasting three weeks. For a year or more previous to his admission he had consumed, on the average, one and one-fourth ounces of opium per week. For two months he had showed an incapacity for business, and had suffered with hallucinations of hearing and delusions. He was moderately excited, was in incessant motion, making grotesque gestures, and throwing off his clothing. He had some appreciation of his condition and could control him-self fairly well in the presence of the physicians. He received no opium after his admission. In three and one-half months he be-came quieter, but still showed imperfect self-control, and on slight provocation became angry and excited. He continued much in the same condition for several months, and gradually gained thirty-four

pounds in weight. He was willing and able to employ himself regularly every day in a light out-of-door occupation, and in fifteen months made a trial away from the Institution. He soon returned, however, but in a short time made a further mental gain, and went home well. He has since kept well, and continued at business.

As will be inferred from Table XIX, the death rate for the year was low, being seven per cent. on the average number resident, and five and eight-tenths per cent. on the total number under treatment. The causes of death have been varied and no cause was particularly prominent. Autopsies were made in the case of twenty men and nine women, and careful records of results obtained, have been pre-served. Many interesting and instructive facts were recorded. In one instance the insanity was clearly traced to a fibromyoma, which was embedded in the posterior wall of the uterus, and measured 2 . $_2$5 x 2.75 inches.

The general health of the Institution for the last year has been good. We have been visited by no epidemic of disease, and no case of suicide, homicide or serious accident has occurred. But one case of typhoid-fever developed itself and that not among the patients.

Much stress has been laid during the year on the occupation of patients. The difficult construction of a new and central approach to the Institution, and the inauguration of a new system of sewer-age have furnished ample opportunity for an unusual number of our patients to engage in out door work. Evidences are on every hand, that such employment has proved of incalculable benefit to the participants, not only in establishing a better state of physical health and sounder sleep, but in producing a more tranquil condition of mind, greater contentment, and in many instances, marked amelioration of disease.

At the opening of the season, companies of men under the supervision of attendants were provided with pick-axes, shovels and wheel-barrows, and were cautiously employed for half-time, morning and afternoon. Gradually the working hours were lengthened until the performance of a respectable day's labor was gained. Sixty-three men, many of whom had for years aimlessly wandered through the airing courts, and dozed upon the benches of the wards, found pleasure and profit in their new and varied exercise. Besides those

engaged in the construction of roads and sewers, forty-nine have been regularly employed in the various works of the Kitchen, Laundry, Bakery, Mattress Room, and Farm, and large parties have been temporarily organized to lend a helping hand in gathering the various crops. Many women have been regularly employed in the Kitchen and Laundry, and extra parties have frequently assembled for the special indoor work of the various seasons.

No halls of this Asylum have been thus far so constantly and regularly thrown open as to deserve the name of " open wards." Full parole has been granted in fifteen cases of men, and five of women, and has been rarely abused ; but any considerable enlargement of this number has been deemed incompatible with the best interests of those committed to our charge, and of the community at large. Very little mechanical restraint was used in the Asylum during the last year. During the month last past, four men and two women have been regularly restrained by wristlets, muffs or camisole during the day, and five men and two women during the night. In the cases of night restraint, it was felt that the camisole afforded the most rational way of preventing further action of what was adjudged to be the cause of the disease.

Amusements have been continued during the winter season as in previous years, and have consisted either of weekly dances, weekly card parties, and weekly entertainments of various character, including dramatic performances, concerts, minstrel entertainments and stereoptican exhibitions, of home talent, or readings, concerts, lectures, and variety entertainments by professional pleasure-givers. A large party attended a circus performance at Morristown, August 20th. During a part of the summer season, the Asylum brass band played semi-weekly alternately in front of each of the two wings, to the edification and delight of all. Divine service has been regularly held in the chapel Sunday afternoons, by the Rev. Drs. Merritt and Erdman, and Rev. Messrs. Parker, Crawford and Holloway. Thanks-giving and Christmas services were conducted respectively by **Rev.** Mr. Holloway and Rev. W. S. Ludlam. Except during the hottest weather, a large gathering has participated every Sunday evening in the singing of Sacred Music.

During the year the Institution has been kindly remembered by Mrs. Arnold Weichert, who presented to the ward libraries ten large

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volumes of the German magazine " Ueber Land and Meer," and four volumes of the Gartenlaube; and by Miss H. G. Wells, who gave eight volumes of the Atlantic Monthly, elegantly bound, and two miscellaneous volumes. Gifts of files of papers have been received from friends in Morristown, all of which gifts are gratefully acknowledged.

On June 1st, Doctors W. L. Russell, C. P. Wertenbaker and William Mabon, were advanced respectively to the positions of first, second and third assistant, and Dr. D. W. McFarland was appointed fourth assistant. To these gentlemen I desire to express my appreciation of their loyal support, and their earnest endeavors to advance the interests of the Institution. My thanks are due to the supervisors and attendants, many of whom took their posts at the opening of the Asylum, and continue in efficient and conscientious discharge of their trying duties.

To your Board I am under obligations for renewed evidences of your kindness and confidence.

• Respectfully submitted,

EDWARD C. BOOTH, Medical Director. Morris Plains, N. J., Nov. 1, 1886.

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EXTRACT FROM THE BY-LAWS.

ADMISSION OF PATIENTS.

ORDER OF WARRANT FILED.

1. Whenever a patient is sent to the Asylum by the order of any court, justice or judge, the order or warrant, or a copy thereof, by which such person is sent shall be lodged with the Medical Director.

CLEANLINESS.

2. Each patient, before admission, shall be made perfectly clean, and be free from vermin or any contagious or infectious disease.

CLOTHING FOR MEN.

Each male patient shall be provided with at least two shirts, a new and substantial coat, vest and pantaloons, of strong woolen cloth, two pair of socks, a black cravat, a good hat or cap, and a pair of new shoes or boots, together with a comfortable outside garment.

CLOTHING FOR WOMEN.

3. Each female patient, in addition to the same quantity of under-garments, shoes and stockings, shall have a flannel petticoat, two good dresses, also a cloak or other outside garment. In case the patient is so much excited as not to admit of being thus clothed, other clothing that can be kept on, that is comfortable and in sufficient quantity, with a change thereof may be substituted.

It is very desirable that extra and better apparel should be sent with those accustomed to it, that when they become better, and when they attend religious worship, walk or ride out, their self-respect may be preserved. In all cases the patient's best clothing should be sent ; it will be

carefully preserved, and only used when deemed necessary for the purposes above mentioned.

JEWELRY, ETC.

5. Jewelry and all superfluous articles of dress, knives, etc., should be left at home, as they are liable to be lost.

HISTORY OF CASE.

6. A written history of the case should be sent with the patient, and, if possible, some one acquainted with him should accᵒmpany him to the Asylum, from whom minute, but often essential, particulars may be learned.

TERMS OF ADMISSION.

7. The price of board, including washing and attendance, for all who are supported at public charge, is three dollars per week. For private patients, or those supported by themselves or friends, the price varies from five to ten dollars, according to the trouble and expense incurred, and according to their ability to pay. Higher prices are paid by a special agreement with the Warden for extra attention and accommodations. Payments required to be made quarterly in advance, from date of admission.

BOND, ETC.

8. A bond, with satisfactory sureties, will be required for the payment of the board and expenses and for the removal of the patient when discharged of all persons except those sent at the expense of the counties.

Those who bring friends should be prepared to give such a bond, and, *if strangers, bring evidence of their responsibility.*

TWELFTH ANNUAL REPORT
OF THE MANAGERS AND OFFICERS
OF THE STATE ASYLUM FOR THE INSANE AT
MORRISTOWN, N. J.,
For the Year Ending October 31st, 1887.

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OFFICERS OF THE ASYLUM.

MANAGERS.

GEORGE A. HALSEY	Newark.
HIRAM C. CLARK	Newton.
JAMES S. GREEN,	Elizabeth.
M.D JOSIAH MEEKER.	Succasunna.
THEODORE R. VARICK,	Jersey City.
M.D. EDWARD T. BELL	Paterson.
HUGH C. HENDRY,	Newark.
M.D, WILLIAM S. BANTA	Hackensack.
JOHN W. JACKSON,	Rockaway.
M.D N. W. VOORHEES	Clinton.

OFFICERS OF THE BOARD OF MANAGERS.

President HON. GEORGE A. HALSEY.
Vice-President JAMES S. GREEN, M.D.
Secretary and Treasurer GEORGE D. MEEKER.
Warden M. B. MONROE.

MEDICAL OFFICERS.

E. C. BOOTH, M.D.	Medical Director.
H. C. HARRIS, M.D.	Assistant Physician.
D. W. MCFARLAND, M.D.	Second Assistant Physician.
ANDREW MCFARLANE, M.D.	Third Assistant Physician.
C. P. SPRATLING, M.D.	Fourth Assistant Physician.

MANAGERS' REPORT.

To His Excellency Robert S. Green, Governor of the State of New Jersey:

The Board of Managers of the " State Asylum for the Insane, at Norristown, N. J.," in compliance with the statute, would respectfully submit this their

TWELFTH ANNUAL REPORT,

and with it the annual report of the Medical Director, the Warden, and the Treasurer, to which reference is made for full and itemized information of what pertains to each department.

The number in the Asylum on the 31st day of October, 1886, was eight hundred and fifty-seven (857) patients, of which number there were four hundred and fifteen (415) males, and four hundred and forty-two (442) females, nine (9) being absent on probation or by elopement.

There were received during the year to November 1st, 1887, two hundred and eight (208) patients, of whom one hundred and fifteen (115) were males, and ninety-three (93) were females.

There have been under treatment during the year, including those on probation or eloped, one thousand and seventy-three (1,073), of whom five hundred and thirty-nine (539) were males, and five hundred and thirty-four (534) were females.

Of these, forty-five (45) were discharged recovered, twenty-eight (28) much improved, thirty-one (31) improved, thirty-four (34) unimproved, and sixty-one (61) have died.

There were discharged as inebriate, one (1); as opium habitues, none.

There were remaining in the Asylum October 31st, 1887, eight hundred and seventy-three (873), of which number there were four hundred and thirty-four (434) males, and four hundred and thirty-nine (439) females; six (6) were absent on probation or by elopement.

Of these, seven hundred and forty-three (743) were public patients, and one hundred and thirty (130) were private patients.

The annual inventory of the personal property belonging to the Asylum, taken by the Warden and two appraisers, as required by law, amounts to one hundred and twenty-five thousand eight hundred and sixty-seven dollars and eighty-seven cents ($125,867.87), being an increase of four thousand and ninety dollars and twenty-eight cents ($4,090.28) over the year 1886.

The Treasurer in his report states that the receipts from all sources, including the balance on hand October 31st, 1886, twenty-two thou-sand five hundred and seventeen dollars and two cents ($22,517.02), amount to two hundred and sixty thousand one hundred and twelve dollars and eighteen cents ($260,112.18).

The payments of the same period amount to two hundred and forty-eight thousand and six dollars and thirty-two cents ($248,006.32), leaving a balance in his hands on the 31st day of October, 1887, of twelve thousand one hundred and five dollars and eighty-six cents ($12,105.86).

Of these receipts thirteen thousand six hundred and fourteen dollars and thirty-nine cents ($13,614.39) were from convict patients, fifty-three thousand two hundred and fourteen dollars and twenty-two cents ($53,214.22) were from private patients.

On the 1st of July, 1887, Dr. William Mabon resigned his place as Third Assistant Physician, and on the 1st of October, 1887, Drs. William L. Russell, Assistant Physician, and Dr. C. P. Wertenbaker, Second Assistant Physician, resigned their respective offices. On the 29th of October, 1887, Dr. H. C. Harris was elected Assistant Physician, Dr. D. W. McFarland Second Assistant Physician, Dr. Andrew McFarlane Third Assistant Physician, and Dr. C. P. Spratling Fourth Assistant Physician.

The health of the Asylum during the past year has been excellent, with the exception of ten cases of typhoid fever of mild types. Diseases incidental to the summer season have been quite infrequent.

DISPOSAL OF SEWAGE.

The disposal of the sewage of the institution has been satisfactorily accomplished, and the work has been practically completed.

The result is best stated in a letter from Prof. Charles McMillan, C.E., to the Warden. He writes : " If the sample of effluent

which you sent me is a fair, average sample, you have probably the cleanest sewage effluent in this country. It is purer than the water of any of the streams around Princeton. I have reduced the report (of the analysis) as to the ammonias to parts per million in order to enable you to compare the results with the analyses of other waters. The following is the result :

Free ammonia	0.04 parts per million.
Albuminoid ammonia.	0.17 parts per million.

" I estimate that at least 96 per cent. of the impurities is eliminated."

Upon this work there has been expended thirty-five thousand nine hundred and twenty-one dollars and fifty-three cents ($35,921.53), nearly six thousand dollars ($6,000) more than was appropriated by the State for this necessary purpose. It was found impossible to accomplish this important result at a less cost.

A condensed account of the work accomplished in disposal of the Asylum sewage is thus given by *Prof.* McMillan : " I would say that at the close of last year the two new sewers tapping the old north and south sewers had been completed to their junction and final outlet on the new sewage fields, together with two screening-tanks, the flush-tank and the delivering pipe leading from the latter, and the necessary out-lets and basins for the temporary disposal of the sewage on the surface of the ground during the winter.

"The sewage fields, viz., the sloping field immediately joining the tanks, and the so-called gravel field lying below it, had been prepared by underdrainage and the latter also graded. These fields have been used for the disposal of the sewage ever since December 8th, 1886, and most of the time with a success which gives a very fair promise of the final result. Yet the taking care of the sewage has been at the expense of considerable time and labor.

" The work achieved this year has been the construction of the settling-tanks, which it was thought best to make larger than originally intended ; the construction of an additional outlet from the sub-drains of the sloping field ; the preparation of filtering areas on the gravel field ; the laying of about 97,000 feet (nearly 18½- miles) of absorption tile, with the necessary carriers, in the sloping field, for the distribution of the sewage under the soil ; and the underdrainage of an additional area yet to be occupied by absorption tile.

"All the absorption tile laid (a little more than three-quarters of the entire amount called for) has been connected with the outlets from the tanks, and has very recently been put in operation tentatively to settle the trenches, develop any weaknesses, and prepare it to pass the winter.

" By my advice the general scheme was changed this year by laying the absorption tile in the sloping field instead of in the gravel field, and by the preparation of filter beds on the latter, which could be used at times as auxiliaries with the intermittent downward filtration, the flow coming directly frorn the tanks, or which could be employed for filtering the effluent from the sub-drains of the sloping field occupied by the absorption tile, thus securing, in the latter case, should such a step be at any time necessary, a process of double filtration.

" The work, as you will infer, is not yet complete, but it is far enough advanced to put in operation, partially, the principal feature of the system, viz., disposal by sub-irrigation. The necessary adjustments of the works to the present proportions of the system are now being made.

" A sample of the sewage and one of the effluent from the so-called gravel-pit (our deepest and best outlet) have been recently analyzed, showing a very pure effluent and a high rate of purification." (See report.)

The Board of Managers would ask respectfully for an appropriation of six thousand dollars ($6,000) to reimburse the treasury of the Asylum for money advanced for this necessary work.

WATER-SUPPLY.

The question of an ample water-supply, especially during the fall and winter months, has engaged the anxious solicitude of the Board. , During the months of October, November and December, especially, it has been necessary to pump from the ice-pond into the reservoir over one hundred thousand (100,000) gallons a day in order to keep the reservoir from being drained by the actual needs of the house. This is an expensive mode of supplying the institution with water, costing about twelve dollars ($12) per diem.

A rigorous economy in the use of water during the year has failed to remedy this evil, and the only means by which relief can be brought is the construction of a large storage reservoir. The Board has com-

menced the construction of the same, which is as yet incomplete for want of money. The Managers would ask from the State an appropriation of three thousand dollars ($3,000) for this important necessity.

OUT-BUILDINGS, VENTILATION, ETC.

The want of suitable buildings for the proper care of the horses, cows and hogs belonging to the State has been felt ever since the occupation of the Asylum building. The cows and hogs particularly are not protected as they should be. One hundred and fifty (150) hogs have died from this cause during this year, entailing a loss of fifteen hundred dollars ($1,500). Besides this want there is a pressing need for the storage and care of hay, grain and other products. Proper and adequate buildings are estimated to cost fifteen thousand dollars ($15,000).
There is still another urgent want for which an appropriation of three thousand dollars ($3,000) is needed, namely, for the provision of better ventilation, and trapping the hoppers of the water-closets, and necessary sanitary repairs.
The aggregate appropriation by the State for the purposes absolutely required by the Asylum, including three thousand six hundred dollars ($3,600) estimated by Prof. McMillan as required to complete the sewer, amounts to twenty-seven thousand eight hundred and twenty-two dollars and nine cents ($27,822.09) for the completion of the work as above stated.
The Board of Managers have appended to this report a detailed account of the work of the sewerage of this institution, with a map made by Prof. Charles McMillan, civil engineer, and the Board of Managers are happy to state that the result obtained by said work is in every respect satisfactory.

The Board of Managers would respectfully call attention to that part of the Medical Director's annual report relating to the treatment of convict patients in wards occupied by other public and private patients.
The Board of Managers would respectfully request that they have an opportunity to revise the proof copy of their annual report, their report of last year having been so mutilated by the printer as to mis-

represent facts and figures, an opportunity to read the proof before publication having been denied this Board by the printer. All of which is respectfully submitted.

GEORGE A. HALSEY, HIRAM C. CLARK, JAMES S. GREEN, JOSIAH MEEKER, THEO. R. VARICK, EDWARD T. BELL, WILLIAM S. BANTA, HUGH C. HENDRY, JOHN W. JACKSON, N. W. VOORHEES,

Managers.

Dated at the State Asylum, at Morristown, New Jersey, November 10th, 1887.

REPORT OF PROF. CHAS. McMILLAN.

PRINCETON, N. J., Nov. 4th, 1887.

To the Managers of the State Asylum for the Insane, at Morristown, New Jersey:

GENTLEMEN — In compliance with your desire, I have the honor to present a report of the work accomplished during the past year on the sewerage of the Asylum.

The work last year was sufficiently far advanced by the end of autumn to admit of turning the larger portion of the sewage from **the** building into the new sewers. The sewage from the southerly half of the building, including the discharge from the laundry, was let into the new south sewer on December 8th, 1886, and was distributed on the sloping field adjoining the flush-tank. (See sketch.) **The** north sewer was set in operation later, shortly after the beginning of the new year, since which time we have been applying the sewage of the entire building to the new sewage fields.

Whether this step was a wise one or not — it was a hindrance of considerable magnitude during this year's operations — it is nevertheless hoped that it will be accepted as the best evidence of a conscientious endeavor to rid the adjacent streams of the sewage contamination complained of.

Except for a short time, before the working season, the disposing of the sewage on these fields was quite successful, and it has apparently continued so. The effluents have been vigilantly watched and have been generally unobjectionable, while careful management of the sewage by Mr. Monroe, on whom the burden of its management naturally fell, succeeded in reducing odors on the sewage fields during the heat of summer to a degree that was very gratifying.

I learned in the latter part of February that the amount of water which had been running through the sewers greatly exceeded the reported daily consumption of water in the building (150,000 gallons),,

the effects of this year's dealing with the sewage, Mr. Monroe kindly undertook to collect and send me samples of the effluents. Samples of the sewage from the flush-tank and of the effluent from our deepest outlet — the gravel-pit — were received about two weeks ago. In view of the heavy charges of sewage which have necessarily been poured upon the gravel field, I consider the results of the analyses very encouraging. The following is an abstract from the report of Prof. Cornwall, to whom I am indebted for the examination

Free ammonia in 100,000 parts:	
Sewage	0.8
Effluent	0.00
Albuminoid ammonia in 100,000 parts:	
Sewage	0.58
Effluent	0.01
Chlorine in 100,000 parts : Sewage	
Effluent	

The determinations for the sewage are approximate.

3.2
2.5

An additional area in the sloping field, of nearly an acre in extent, **has** been recently underdrained as a preparation for extending the easterly sections of absorption tile over it.

The principal work which is yet unfinished is the laying of the balance of the absorption tile (about 22,000 feet) and the introduction of intermediate drains in the sloping field between those which have been already laid.

I estimate that it will require about three thousand six hundred dollars ($3,600), in addition to the amount already expended, to complete the plan.

It may be of interest to state that many of the details of the plan, as executed, are adaptable also to either of two other methods of sew-age disposal, viz., by intermittent application of the sewage directly to the surface or by chemical precipitation with subsequent filtration of the effluent from the precipitating tanks ; and that these details or features are so situated that in case of accident, or in any contingency which has not yet been foreseen, either of these approved methods of sewage disposal will be immediately at your command for securing the necessary relief.

I am, very respectfully, your most obedient servant,

CHAS. McMILLAN.

TREASURER'S REPORT

To the Board of Managers of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN — The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from November 1st, 1886, to January 5th, 1887, inclusive :

DR.

Balance on hand November 1st, 18E6		$22.517 02
To amount received from the State Treasurer for county patients	$8,748 43	
To amount received from the State Treasurer for convict patients	3,139 67	
To amount received from sundry counties for support of county patients	16,659 39	
To amount received for the support of private patients	4,837 12	
To amount received for hides, fat, &c	643 43	
		34.028 04
		$56,545 06

CR.

By amount paid Warden's orders	$38,788 44	
By amount paid George D. Meeker, Treasurer	17,756 62	
		$56,545 06

EUGENE VANDERPOEL,
Treasurer.

Dated State Asylum for the Insane, Morristown, N. J., January 6th, 1887.

We hereby certify that we have examined the Treasurer's accounts and vouchers to this date, and find them correctly stated and balanced.

JOHN W. JACKSON,
W. S. BANTA,
HIRAM C. CLARK,
Committee.

TREASURER'S REPORT.

To the Board of Managers of the State Asylum for the Insane, at Morristown, New Jersey :

GENTLEMEN — The Treasurer of the Asylum respectfully submits the following abstract of his receipts and expenditures from January 6th, 1887, to October 31st, 1887, inclusive :

DR.

To amount received January 6th, 1887, from Eugene Vanderpoel, late Treasurer		$17,756
To amount received from the State Treasurer, balance of sewer appropriation	$7,50000	
To amount received from the State Treasurer for convict	10,474 72	
To amount received from the State Treasurer for county	26,728 99	
To amount received from sundry counties for the support	107,368 35	
To amount received for the support of private	48,377 10	
To amount received for hides, fat, &c	3,117 96	
		203,567 1
		$221,32 7

C R.

By amount paid Warden's orders	$209,21 88	
Balance in Treasurer's hands,	12,105 86	
		$221,32 7

GEORGE D. MEEKER,
Treasurer.

Dated State Asylum for the Insane, Morristown, N. J., November **5th,** 1887.

We hereby certify that we have examined the accounts and vouchers of George D. Meeker, Treasurer, from January 6th, 1887, to October 31st, 1887, inclusive, and find them correctly stated, leaving a balance due the Asylum of twelve thousand one hundred and five dollars and eighty-six cents ($12,105.86).

JOHN W. JACKSON, N.
2 W. VOORHEES,
Committee.

SUMMARY OF RECEIPTS AND DISBURSEMENTS

OF EUGENE VANDERPOEL, FORMER TREASURER, AND GEORGE D. MEEKER, PRESENT TREASURER OF THE STATE ASYLUM FOR THE INSANE, AT MORRISTOWN, N. J., FOR THE YEAR ENDING OCTOBER 31ST 1887.

RECEIPTS.

November 1st, 1887, balance on hand		$22,517 02
Received from State Treasurer, balance of sewer appropriation	$7,500 00	
Received from State Treasurer for county patients.	35,477 42	
Received from State Treasurer for convict patients.	13,614 39	
Received from sundry counties for the support of county patients	124,027 74	
Received for the support of private patients	**53,214** 22	
Received for hides, fat, &o	3,761 39	
		237,595 16
		$260,112 18

DISBURSEMENTS.

Orders of Warden paid	$248,00 **32**	
November 1st, 1887, balance on hand	12,105 86	
		$260,112 18

WARDEN'S REPORT.

To the Board of Managers :

With the close of another year it again becomes my duty to submit to your Board a report of the financial and business operations of this Asylum.

The frequent visits of the members of the several committees, in addition to the regular meetings of the Board, would seem to render it unnecessary for me to recapitulate the work of the year for your information, but as a large number of the citizens of the State and others interested in the work of the institution do not find opportunity to visit it and can obtain knowledge of its condition only from the yearly reports, I will briefly review the several improvements made during the past twelve months and others which are proposed for the next year, together with a summary of receipts and expenditures since the date of my last report.

FINANCIAL.

The average number of patients under treatment during the year was eight hundred and sixty-nine (869).

The number of patients remaining in the Asylum at this date is eight hundred and seventy-three (873).

The total receipts, including seven thousand and five hundred dollars ($7,500) from the State treasurer, being the balance due on the special appropriation of thirty thousand dollars ($30,000) for the construction of a new sewer, and also including a balance of twenty thousand four hundred and forty-eight dollars and forty-one cents ($20,448.41) in the hands of the Treasurer at the date of my last report, amount to two hundred and fifty-nine thousand eight hundred and fifty-nine dollars and thirty cents ($259,859.30).

The total disbursements (including expenditures for the sewer) are

($246,020.03), leaving a balance of thirteen thousand eight hundred and thirty-nine dollars and thirty-seven cents ($13,839.37).

The subsistence and fuel in store were estimated at thirteen thou-sand eighty-eight dollars and eighty-nine cents ($13,088.89), and accounts due eighteen thousand four hundred and twenty dollars and twenty-two cents ($18,420.22).

The liabilities, as per bills on file and including the pay-roll for October, amount to thirty-three thousand four hundred and eleven dollars and ninety-eight cents ($33,411.98).

FARM, GARDEN AND DAIRY.

The land under cultivation during the past season amounted to about the same number of acres as last year, but the severe and protracted rains which occurred the latter part of the summer rendered it almost impossible to gather crops, and as a result the hay and grain were badly damaged.

The yield of potatoes scarcely reimbursed us for the expense of digging.

The valuation of the products of the farm given in detail in the appendix amounts to eight thousand two hundred and fifty-seven dollars and eighty-three cents ($8,257.83).

The value of stock raised, nine hundred and thirty-one dollars and twenty-six cents ($931.26).

The returns from the garden show more favorably, although the same circumstances affected general results and very considerably reduced the quantity of fruit and vegetables below that of previous seasons, yet the expense of production was very much less than that of the farm.

The estimated valuation of the garden was five thousand two hundred and eighty-seven dollars and ninety-nine cents ($5,287.99).

I have made no separation of the cost of the farm and garden, but from my knowledge of the number employed in each department, the cost of the former is largely in excess, which may be accounted for, however, by the fact that several patients have been employed **in** the garden, while none but paid labor have assisted on the farm.

During the month of December and throughout the winter of 1886, a disease made its appearance among the hogs which gradually spread throughout the herd, affecting nearly all the number remaining in pens.

An experienced veterinarian was called into consultation, and after careful investigation it was concluded that the disease was that commonly known as the hog plague, and that its origin was largely due to exposure and the poor protection afforded the stock in the temporary pens erected some years since. Efforts to check the disease were made-

1st. By separation of the healthy hogs from those infected. 2d.

Cleaning and disinfecting the pens.

3d. By treatment with carbolic acid and a solution of pure crystallized acid, all of which seemed without avail, as the disease continued to increase, and it was not until late in the spring that it finally disappeared.

Our loss, in round numbers, including large and small, reached about one hundred and fifty (150) head.

During the summer the foundation-wall for new pens has been built in a good locality upon the grounds, but the many other projects in hand, together with the need of necessary funds, prevented its completion this year.

IMPROVEMENTS AND REPAIRS.

Boiler-House.

The constant use of the machinery in the several shops, the boilers, steam-heating fixtures, &c., since 1876, with but few changes or repairs, seemed to make it important that a thorough inspection and examination of their condition should be made, and, as suggested in my report of 1886, it was found that the dividing walls on which the boilers rest were all badly burned out and in a dangerous condition.

The attention of the committee being called to the matter, I was directed to take them all down, including the south-end wall, and rebuild them. The repairs also necessitated the building of the arches and bridge-walls under the boilers, which work was safely accomplished during the summer. All the boilers were found to be in a thoroughly sound condition externally.

The furnaces under boilers Nos. 1, 2, 3 and 4 have been fitted with the Tupper grates to burn buckwheat coal, the advantage of which was stated in a former report.

The wooden floors of the machine shops, center, south and a portion of the north ducts of the building have been replaced with a

solid concrete floor, and the return steam pipes on each side of the passages have been covered with corrugated iron plates in order that they could be readily reached for repairs, &c.

The feed-pumps have been refitted with steam pistons, regulators, water-plungers and valves. General repairs have also been made to the reservoir pump.

I would suggest that a change be made in the steam pipe over the boilers from the present three-inch to that of six-inch, for the reason that now we are compelled to carry a boiler pressure far in excess of the requirements for steam-heating purposes on all boilers in use in winter season. The pipes referred to would then be large enough to supply the engines, the steam for which must now be taken from the steam heating main.

This change would enable us to use any of the boilers, for steam-heating purposes only, at low pressure. We do not need one-tenth the boiler pressure we are now compelled to carry for steam-heating purposes, and which could be regulated at will as required. As it is estimated that about one-half the usual consumption of fuel is for steam-heating purposes, the saving in the cost for fuel would necessarily be considerable, probably 10 to 15 per cent. less than the cost at present for fuel for that purpose.

I have made no estimate of the cost of this change, but as we could do the work here in our shops, I do not think it would amount to any considerable sum.

Special heaters have been placed on both floors of section " B ," north side, and the heating-flues running through the rear walls of the building to the bath-rooms on the fourth floor have been lined with tin pipe, whereby it has been made possible to heat the rooms in extremely cold weather.

General and extensive repairs have been made to the boiler fixtures and to the machinery in laundries, bakery, &c., among which may be mentioned new coupling on main-line shaft, new bluing-tub with wringer attachment, repairs to fan counter-shafts, kitchen boilers, trucks, food-cars, &c.

THE CENTRAL AVENUE.

The new avenue of approach to the building, except the paving of the gutter from the lower culvert, has been completed, and we are now engaged in staking out and preparing the ground for the extension of the line of trees on each side.

THE CARPENTERS

Have been engaged during the year in making and repairing the furniture of the institution, also improving and repairing the other buildings and fences upon the grounds, preparing timber for the new pig-pens, making window-frames and sash for the new barn, and also a considerable amount of work on the sewer.

THE PLUMBERS

Have been busily occupied in repairing the extensive system of the steam and water pipes and the heating and gas fixtures of the institution.

The gradual increase of this class of work (after eleven years' use of the fixtures) makes it apparent that a thorough overhauling and repair of these appliances will soon be necessary.

In addition to the duties claiming their attention within the Asylum building, they have assisted in making the iron-pipe connections and their fixtures designed by Prof. McMillan for the new system of sewage disposal; also in changing and laying the large pipes through the filter-house at the lower reservoir.

THE PAINTERS

Having completed their work in all the bath and wash-rooms of the institution, the side walls of the wards were next in importance requiring their attention, and, during the winter months, they covered 8,500 square yards of side wall with lead and oil in tinted color,. kalsomined 5,488 yards of ceiling, and varnished 9,144 yards of woodwork.

In addition to the above they have painted bath-tubs, the metal roofs, varnished 950 pieces of furniture, painted ten summer-houses in the yards, all the sash, frames and guards in the front of the building, two special wards (painted and decorated) in oil colors, and whitewashed throughout the whole extent of the cellar under the building.

 MATTRESS-

ROOM.

A detailed list of all the articles made and repaired in the mattress-room, and in the shoe shops, is added in the appendix, which shows that the employees and patients engaged there have rendered valuable service.

THE GAS WORKS.

The same number of men have been employed in the works as were employed last year. The total consumption of gas (for all purposes) during the year amounted to six million three hundred and thirty-seven thousand three hundred (6,337,300) feet, the cost of which will be found in the abstract of expenditures.

SEWING AND DRESS MAKERS' ROOMS.

The employees of these departments have rendered good and efficient service in making up clothing for the patients, and the bedding and linen for the wards. A list of the articles made will be found in the appendix.

THE NEW BARN.

Plans for a new farm barn having been submitted to and adopted by the Board, after selecting the site, and as early in the spring as the weather would permit, a force of patients, under the supervision of attendants, was employed in the excavation of the cellar, which work they accomplished in time to give opportunity to employ a number of masons upon the walls. Considerable advance has been made by these workmen, and they are now engaged in setting the window, frames in the basement story.

The design of the building may be briefly stated as follows : The basement to be of stone from the same quarry that supplied the material for the Asylum walls. The upper portion to be frame and shingled. The dimensions of the main building are 54x115, and 60 feet high, with a storage capacity for over three hundred (300) tons of hay, &c. The basement floor will accommodate seventy (70) head of cattle, and contains a root cellar. It is designed to add, at some time in the future, two wings connecting with the main building, one

for horse stables, with apartments above for persons in charge of the building and stock, the other for young stock, &c. The two wings, when added, will form a square yard enclosure with southern exposure.

THE SEWER.

The plan for the disposal of the sewage of the Asylum, proposed by Prof. Charles NcMillan, of Princeton, and adopted by your Board, has now so nearly reached completion that we have been enabled to make thorough tests of the advantages secured by this method, and I have no hesitation in stating that I believe there can be no further ground of complaint for polluting the streams from the effluent now discharged into them, nor from odors arising from the ground through which the sewage is filtered.

In my supervision of the work during the past season, I have made daily visits to all parts of the fields, frequently accompanied by gentlemen who were interested in the subject and desired to be informed as to the working of the plan in operation here, and the absence of offensive odors was particularly noticed.

The effluents from the fields where the sewage is discharged in appearance seems a bright, pure stream, and any one not informed of its source would not hesitate to use the water for any purpose. In order to secure the successful working of the system in future, how-ever, it will be necessary to divert all the storm-water from the shops and rear center buildings, which is now discharged into the sewer, and also to in some way regulate the use of water in the house. Early in the spring Prof. McMillan called my attention to the increased flow through the sewer, and your Board adopted a resolution restricting the use of water within the building except for necessary purposes, which, for a time, caused a very considerable reduction of the volume. Yet, I do not think that any rule (no matter how conspicuously posted) would prevent this waste of water, where frequent changes of persons in charge of the several wards are likely to occur. As a permanent remedy I can only suggest the reduction of the size and number of outlets with automatic flushes for the hoppers.

The total expenditures for the construction of the work at this date amounts to thirty-three thousand nine hundred and seventy-five dollars and seventy-eight cents ($33,975.78). In addition to this sum, we have incurred liabilities for drain pipe, labor, &c., to the

amount of one thousand nine hundred and forty-five dollars and seventy-five cents ($1,945.75), making the total cost thirty-five thou-sand nine hundred and twenty-one dollars and fifty-three cents ($35,921.53), an excess of five thousand nine hundred and twenty-one dollars and fifty-three cents (5,921.53) above the appropriation made by the Legislature of 1885 for this special purpose.

THE WATER-SUPPLY.

In accordance with the directions of the committee in charge of the grounds, I have continued the work on the lower reservoir with all the force available during the past season, and had hoped that we could have advanced the work sufficiently to be enabled to use the supply of water from that source this fall, but the necessity of enlarging the filter-house and raising the dam higher than was at first suggested, has prevented this. The frequent rains during the summer have very much relieved our anxiety as to the necessity for pumping until the beginning of October, when the pump was again started, and necessarily continued since.

Among the unusual expenses incurred during the summer were repairs to the dams of the ice-pond and upper reservoir. During one of the heavy storms in July considerable damage was done to the bank of the reservoir, and in the dam of the ice-pond a gap was made sufficiently large to permit the escape of the entire contents of the pond. Both of these banks have been strongly and thoroughly repaired since that time and the ice-pond is again filled with water.

In my report of 1886 your attention was called to the dangers to be apprehended from the condition of the untrapped water-closets throughout the wards and in the patients' rooms.

The same matter was referred to in a special communication to the Managers from the State Board of Health, but without special instructions I have not felt called upon to make estimates of the probable cost of these changes, yet the importance of some action at an early day would seem to require your attention.

The expenditures for the several improvements previously mentioned, made during the past year, will be found stated under appropriate heads in the Abstract of Accounts.

The annual appraisement of personal property in and about the Asylum was made as in former years, and amounted to one hundred.

and twenty-five thousand eight hundred and sixty-seven dollars and eighty-seven cents ($125,867.87), an increase of four thousand and ninety dollars and twenty-eight cents ($4,090.28) above that of last year.

The Hon. John L. Kanouse and Mr. Silas C. Halsey, the appraisers appointed by your Board to assist me in this tedious and import-ant work, proved valuable assistants by their experience of former years.

ACKNOWLEDGMENTS.

In addition to the liberal supply of magazines, weekly and daily papers provided at the expense of the institution, we are indebted for the following papers which are furnished the institution gratuitously :

The Jerseyman and True Democratic Banner, of Morristown ; The Index, of Dover ; The Star of the Cape, of Cape Nay ; The Warren Republican, of Hackettstown ; The Hunterdon Independent ; The Middlesex Democrat; The Hudson County Journal; and The Courier, of Camden.

REQUIREMENTS.

In accordance with the act of April 7th, 1885, the following approximate estimate of the amount of funds needed for the support of the institution for the coming year, including the amount required for salaries of resident officers and for other purposes, is respectfully submitted, averaging the present number of patients in the Asylum to be maintained, and estimating the present number without increase for the next year : amount required for support and maintenance, two hundred and twenty-nine thousand six hundred and thirty-one dollars and fifty-four cents ($229,631.54). The sum required from the State Treasurer for salaries of resident officers, support of convicts and allowance for county patients, is as follows :

Salaries of resident officers	$8,700 0
For support of convicts	13,614 3
Allowance of one dollar ($1) per week for the support of each county patient, the average number of which was 678	**35,477 42**

For all of which the laws now provide.

The additional amount required, if projected and needed improvements are carried out, and for which special appropriations will be required, is approximately estimated as follows :

Farm barn and pig-pens		$15,000 00
Reimbursement of amount expended from current funds in excess of appropriation of 1885, for construction of the sewer		6,000 00
For enlargement of the reservoir		3,000 00
For changes in the water-closet fixtures (see Manager's Report)		3,000 00
In addition to the above sum Prof. McMillan estimates that the further amount of three thousand six hundred dollars ($3,600) will be needed to complete the new sewer, and for the extension of the absorption tile in the sewage fields		3,600 00
Making a total of		$30,600 00
From which may be deducted two thousand seven hundred and seventy-seven dollars and ninety-one cents ($2;777.91), being a balance remaining in the hands of the Commissioners		2,777 91
Leaving the total amount required		$27,822 09

In conclusion, I desire to acknowledge and record my appreciation of the conscientious and faithful discharge of the duties imposed upon my assistants, all of whom have labored earnestly to advance the interests of the institution and to assist me in the successful management of the several departments.

To you, gentlemen, I can only reiterate my feelings of gratitude for kindly advice and confidence, for the care and attention which you have given the institution, and for your earnest efforts to promote the harmonious co-operation of all concerned. In accepting the responsibilities of my office I did not fully estimate the difficulties which I have since encountered, and at times my position has been most trying. I trust, however, in my efforts to honestly discharge the duties imposed upon me, that I have not failed entirely in earning your commendation.

Very respectfully,

M. B. MONROE, *Warden.*

ABSTRACT OF ACCOUNTS

For the Year Ending October 81st, 1887.

GEORGE D. MEEKER, *Treasurer.*

DR.

To balance October 31st, 1886	$20,478	41.
To amount received for board, clothing and incidental expenses of private patients.	54,960	71
To amount received for board, clothing and incidental expenses of county patients	124,027	**74**
To amount received from State Treasurer for county patients	35,477	42
To amount received from State Treasurer for convict patients	13,614	39
To amount received from State Treasurer; balance of sewer appropriation	7,500	00
To amount received for hides, tallow, &c.	1,780	04.
To amount received for sundries, rags, etc.,	1,120	85
To amount received for hogs and pigs	811	73
To amount received for rents	60 00	
To amount received for postage	13	12
To Order 316 (1885), not presented	9	89
To Order 1059 (1886), not presented,	**5**	00
	$259,859	30'

CR.

Amusement	$879	40
Bedding, linen, &c,	3,855	03
Books and stationery	747	85
Clothing .	8,131	35
Crockery and cutlery	516	45
Counsel fees,	99	05
Farm and garden	8,869	50
Fixtures,	1,272	36
Flour,	5,535	50
Feed .	2,988	91
Fruit	4,139	05
Freight	3,631	62
Furniture	2,606	48
Fuel,	11,935	58
Funeral expenses	700	00

Fire apparatus	$108 80	
Grounds and grading.	6,534 60	
Gas and steam-pipe and fittings	777 05	
Harness, wagons, blankets and stable supplies	1,128 21	
Hay and straw	1,377 88	
Household goods	1,568 12	
Incidentals, including telegrams, telephone rental, soap, waste, combs and brushes, razors, straps, &c	1,155 91	
Improvement of buildings	4,805 08	
Light, including gas used as fuel in laundry and for cooking	4,708 23	
Laundry	5,488 93	
Medical supplies	3,066 65	
Medical library.	91 21	
Newspapers	248 33	
New barn	2,850 43	
Provisions and groceries	67,040 21	
Postage	260 56	
Petty current expenses,	500 00	
Painting	3,748 80	
Refunding.	991 24	
Repairs	11,327 68	
Smith and wheelwright.	1,092 55	
Stock	3,084 95	
Sewer	16,388 49	
Tools and supplies, boiler-house and machine shops	1,055 63	
Traveling expenses	109 84	
Tinware and fixtures.	1,024 95	
Vegetables	2,244 77	
Wages	47,332 80	
		$246,020 03
Balance		$13,839

27

SPECIAL APPROPRIATION FOR SEWERS.

DR.

1886.			
Sept. 2.	To amount received from State Treasurer on war-	$15.00	00
Oct. 14.	To amount received from State Treasurer on war-	7,500	00
1887.			
Jan. 28	To amount received from State Treasurer on war-	7.500	00

CR.

By disbursements 1886	$17,587 29		
By disbursements 1887	16,288 49		
		$33,975 78	

LIABILITIES.

Balance due for drain pipe	$1,624 12		
Balance due for pay-roll	321 63		
		1,945 75	
			$35,921,53
Expended above appropriation			$5,921 53

RECAPITULATION.

Receipts from maintenance fund		$252,359 30	
Receipts from sewer appropriation.		7,500 00	
			259,859 30
Expenditures for maintenance,		$229,631 54	
Expenditures for sewer		16,388 49	
Total balance.		13,839 27	
			259,859 30'
Balance		$13,839 27	
Warden's statement of balance		13,839 27	
Treasurer's statement of balance		12,105 86	
Difference			1,733 41

EXPLANATION.

Deposit of receipts from private patients received during the month of October, but not credited by the Treasurer..		$1,770 84	
Order No. 939, not taken up	$17 43		
Order No. 940, not taken up	20 00		
		37 43	
			1,733 41

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MEDICAL DIRECTOR'S REPORT.

To the Board of Managers:

GENTLEMEN — In compliance with the regulation of your Board, the following annual report is respectfully submitted:

By the first of the statistical tables appended it will be seen that there were eight hundred and sixty-five (865) patients — four hundred and twenty-four (424) men and four hundred and forty-one (441) women — in the Asylum on November 1st, 1886, and eight hundred and seventy-three (873) patients — four hundred and thirty-four (434> men and four hundred and thirty-nine (439) women — on November 1st, 1887. This net increase of eight (8) patients during the year is by far the smallest in the history of the institution, and is not due to a decrease in the number of admissions, but partly to the discharge of most of the few remaining patients of other States, and chiefly to a movement of the Asylum population, more rapid than ever before.

The number of patients admitted during the year was two hundred and eight (208) — one hundred and fifteen (115) men and ninety-three (93) women — a slight increase over the number of the preceding year,, and a reverse of last year's preponderance of female admissions. One (1) woman was admitted twice during the year. Two (2) persons, both women, addicted to periodical indulgence in alcohol, were admitted — one (1) by order of the Chancellor. These cases were regarded as not insane and are not embraced in the subsequent statistical tables.

There were two hundred (200) persons — one hundred and five (105) men and ninety-five (95) women — discharged during the year, including an inebriate (who does not figure in the following tables), and sixty-one (61) deaths. Forty-five (45) persons — twenty-three (23) men and twenty-two (22) women — were regarded as "recovered;" twenty-eight (28) persons — eleven (11) men and seventeen (17) women—" much improved;" thirty-one (31) persons — twenty (20) men and eleven (11) women—"improved;" and thirty-four (34) persons — fourteen (14) men and twenty (20) women—" unimproved."

The total number of persons under care and treatment, including six (6) persons absent on probation or by elopement, four (4) of whom were carried over from previous years, was one thousand and seventy-three (1,073) — five hundred and thirty-nine (539) men and five hundred and thirty-four (534) women — an increase of forty-five (45) persons — thirty-one (31) men and fourteen (14) women — over the preceding year.

The daily average number resident was eight hundred and sixty-mine (869) persons — four hundred and thirty (430) men and four hundred and thirty-nine (439) women — an increase of twenty-four k(24) persons over the preceding year.

Table II. sets forth the monthly admissions and discharges. Several more men were admitted during the summer months (March to August, inclusive) than during the winter months (September to February, inclusive), but a few more women were admitted during the winter. These figures are found not to be constant from year to year, and do not correctly represent the relative influence of the two seasons in exciting an attack of insanity, but signify merely the stage of the attack at which further detention at home was deemed by the friends unwise or impracticable. The precise date of the onset of the attack of insanity is often a matter of uncertainty, as in cases of those regarded as harmless lunatics, who, continued in liberty long after they were known to be insane, were not confined till some overt act called attention to the propriety of their restraint. Also as in cases when the onset was so gradual and insidious as not to be noticed by the family and friends. Upon such cases which arise from the slow warping of the natural character through faulty education and habits, the seasons of the year can never be expected to have appreciable influence.

By Table III. it will be seen that of the two hundred and six (206) admissions one hundred and seventy-seven (177) persons — ninety eight (98) men and seventy-nine (79) women — were admitted for the first time, a proportion to the total number of admissions substantially like that of the previous year. Twenty-nine (29) persons have been admitted more than once after having previously recovered ten (10) times.

By reference to Table IV. it will be noticed that more persons suffered a first attack of insanity between the ages of twenty (20) and thirty (30) than between the ages of thirty (30) and forty (40) or

forty (40) and fifty (50) ; but when the number of people of the State actually living in these three decennaries is taken into consideration, it may be calculated that the proportion of the population between the ages of forty (40) and fifty (50) stricken with insanity in this-community was larger in the fifth than in the third and fourth decennaries.

Table V. illustrates the percentage of persons admitted. Concerning this subject it may be remarked that the proportion of American parents is about fifty (50) per cent. of the whole number, and is no essential departure from the showing of the last and preceding years.

The nativity of persons admitted is shown in Table VI. One hundred and seven (107) persons, more than one-half of those admitted, were natives of New Jersey, and thirty-three (33) were born in other States.

The form of disease, as is indicated in Table XI., is expressed according to the terms of a classification employed last year, as being the one best adapted to characterize the cases under care. The largest class of cases is that of "primary monomania" (paranoia). In these cases there was no preliminary attack of acute insanity, as of acute mania or melancholia, but the disease was grafted upon a defective organization either by improper education and lack of self-control, or, often, as the result of an injury to the brain or the intemperate use of liquor. Some of these cases have been so far benefited by a residence here as to be able either to take up their former work in life or to exercise a sufficient self-control to remain at home; but they have rarely been regarded as fully restored to their former state of mental health. The next most frequently recurring form of insanity among our cases was " melancholia," including all the various grades of acute emotional insanity of the depressive type, except the most profound. Cases of maniacal excitement of moderate degree were next in frequency. Many persons were also received who were in a terminal dementia from the results of old age, cerebral haemorrhage,. &c. " Epileptic insanity," too, has a conspicuous place in the list this year, no fewer than fourteen (14) persons having been admitted who had been reduced to various degrees of dementia by repeated convulsions. "General paresis" has furnished its usual number of admissions, and in almost the same proportion between the sexes as was, noted last year.

Table XII. treats of the causes of insanity. While it is recog-

nized that an attack of insanity is brought on in the great majority of cases by a combination of causes acting together and upon each other, among which it is difficult to assign to each its true weight, it has been our endeavor to give the cause which, after careful consideration, has seemed to be the most potent in each case. In some instances, however, the nervous organization has been so unstable in consequence of a vicious inheritance that the individual has drifted into mental aberration without an outward incitement apparent to the friends and physician. Such cases were adjudged to have arisen pre-dominantly through " hereditary influence." Of the moral causes, [1]' mental anxiety" and " worry " have this year proved the most active, and have formed eight (8) per cent. of the causes in cases ascertained. " Domestic trouble " is assigned in five (5) per cent. of known cases — in eleven (11) per cent. among the women, and in only one (1) per cent. among the men. "Adverse circumstances," including pecuniary troubles and loss of friends, claim nearly as large a percentage. Of the physical causes, " ill health," often induced by malaria and general debility, was the most important. This cause was operative among women much more frequently than among men. Masturbation was assigned as the cause in ten (10) per cent. of the male and one and one-half (4) per cent. of the female cases ; but it is not assumed that this cause can be disassociated from certain pre-disposing causes in many instances. "Intemperance in drink" has a large place directly and indirectly in the production of insanity in this institution, and was the principal factor in five (5) per cent. of the known cases and in nine (9) per cent. among the males alone. " Epilepsy" was the sole cause in eight (8) per cent. of the cases, (affecting more largely the men,) and " cerebral haemorrhage" in three (3) per cent. of cases. The hereditary predisposition to insanity in the cases admitted has been made the subject of investigation more particularly than is indicated in the tables, with the following result : Of the one hundred and fifteen (115) men and ninety (90) women admitted, twenty-eight (28) men and thirty-four (34) women had no hereditary predisposition to insanity, as was shown by a painstaking inquiry of persons in a position to know the full family history in each case. Twenty-four (24) men and twenty-seven (27) women had a greater or less hereditary taint, and in the eases of sixty-three (63) men and thirty-eight (38) women the family history was either entirely unknown or not known sufficiently for accurate deduction. Of the

twenty-four (24) men who were hereditarily-predisposed, insanity had occurred in the lineal ancestors of two generations in fourteen (14) cases, and in collateral branches (not including cousins) ten (10) times. Of the former class, nine (9) had insane fathers, two (2) insane mothers, and two (2) others insane fathers and mothers. Of the twenty-seven (27) women, twelve (12) had lineal ancestors insane, and in fifteen (15) insanity was found in the collateral branches. Three (3) of the former class had insane fathers and four (4) insane mothers.

Table XIII. exhibits the number of patients supported by State and county and by private means. The proportions of the different classes to each other are substantially the same as they were last year.

Table XVII. is useful in showing the results of treatment of cases classified according to the number of the attack and the duration of the attack before admission. It will be therein observed that the prospects of recovery in all cases are much increased by an early commitment to an Asylum, nearly 50 per cent. of those in whom the duration of insanity was under three months on admission, having recovered.

Table X VIII., enumerating the causes of death, shows that sixty-one (61) persons — thirty-seven (37) men and twenty-four (24) women — have died during the year. The mortality among the men has been much greater than among the women, as has always been the case in this Asylum, and is generally experienced in other institutions. The rate of mortality is low, being 7 per cent. on the average number resident and 5.7 per cent. of the total number under treatment. The most prominent causes of death were " phthisis pulmonalis " and "general paresis," deaths from the latter cause occurring exclusively among the men. One (1) case of death after a suicidal attempt, which of itself was not deemed fatal, occurred in a patient who was suffering with a severe form of acute brain disease. But one (1) other death took place from acute insanity, all others being in cases of long-standing brain disease generally connected with disease of other organs. Autopsies were performed in twenty (20) cases and records kept of the results. Among others, interesting cases of cerebral tumor and multiple lesions of the brain from apoplexy were observed.

The general health of the household has been good during the last year, with the exception of a mild outbreak of typhoid fever during the autumn. Ten (10) cases of this disease occurred, all but one being

in the male wings. Attendants and patients were alike attacked. The disease was not severe, was free from complications, and the temperature in no instance was very high ; nevertheless two (2) patients, prostrated by long-continued brain disease, were not able to rally and succumbed to the attack. Autopsies showed the characteristic intestinal lesions of the disease. The very trying weather of last July was well borne by the patients, and there were fewer than the usual number of cases of diarrhoea and dysentery during the summer.

In recording the elopement of three convict patients during the year, two of whom were not recaptured, an opportunity is presented for calling the attention of your Board to the question of the wisdom of continuing this class of patients with the general insane. As we now have forty (40) men and six (6) women of the convict class, besides the so-called " criminal patients," who were committed here after acquittal from crime on the ground of insanity, and as Essex county is now discharging its insane convicts into this institution, there will soon be in this one Asylum enough of the convict class to form a fair-sized institution for the care and confinement of them alone.

The presence of nearly fifty (50) convicts in an Asylum adapted to eight hundred (800) patients implies a necessary association between the reputable and convict classes. If it is admitted that a man in his sound senses has the unalienable right to select his own company, is it right that when he is no longer able to choose for himself he should be thrown into compulsory association with those who are habitually wicked and stand convicted of crime? It seems no more than common justice that reputable citizens who are visited with mental affliction, and are thereby compelled to seek an institution for care and treatment, should demand, or have demanded for them by their friends, that they be not subjected in their infirmity and helplessness to influences which are degrading, and which *they* would certainly shrink from were they free agents. A convict who becomes insane does not thereby necessarily lose any of his vicious propensities ; his tendency is rather, by loss of self-control, to give way to them the more. Nor does the honest citizen by his mental affliction, by any means, always sink his delicacy of feeling, his love of the good and his abhorrence of the bad. He must, in the most favorable circumstances, unavoidably see much that is repellant and distressing without being deliberately placed where evil association and contamination are foregone conclusions.

Besides the obvious injustice to the reputable insane, the convict can often not be retained without a resort to those means not often to be had outside of a prison. Either the Asylum rooms and wards must be strengthened to a degree impracticable and well-nigh impossible in a building constructed for other purposes, or the convict must be mechanically restrained or guarded by extra police arrangements. When, with these considerations, it is recognized that the convict patient is often a primary monomaniac, who, in obedience to his delusion, is particularly dangerous to those around him, another argument is added to the advisability of his separate treatment.

If, then, the convict is demoralizing and dangerous to those with whom he is brought in contact, and cannot be properly guarded or given proper privileges in an institution erected for other classes, ought not some attention to be given in the crowded state of this Asylum, to the problem of providing him with a home better fitted to his peculiar needs?

The plan previously inaugurated, of employing a large number of male patients out of doors, has been continued this year with gratifying results. We have had the satisfaction of seeing, as before, in almost all cases, a better behavior, an increased happiness and an improvement in the physical condition of the workers. In some instances the beginning of a sound recovery was noticed to take rise from the date of regular employment. The building and improvement of roads, the digging of trenches, the making of a reservoir and the preparation of the ground for the foundation of a new barn, have furnished excellent employment for large numbers of out-of-door workers. And in the future the care and culture of the extensive grounds belonging to the institution will always happily afford the patients an occupation, than which none can be more healthful or promotive of recovery to any class whatever of the mentally afflicted. The various requirements of the bakery, kitchen, laundry, machine-shop and mattress-room have furnished occupation for many men whose preferences were for an in-door life. But the employment of the women has not been as satisfactory as for the men. By patient endeavor, however, on the part of attendants, many have been induced to sew or knit regularly, who were before scarcely capable of helping themselves. As usual, many women have been employed in the sewing and ironing-rooms and many have assisted in the kitchen, some regularly and others when needed by the extra work of special

seasons. By the gradual resumption of a former congenial employment, a patient — a gifted woman — was raised from the depths of almost hopeless disease to her previous condition of mind. A few common-place lines, written regularly each day, led, in time, to more ambitious attempts, until in a few months she was in the full tide of successful authorship. Her delusions, which had long been of general unworthiness, gradually gave way, until, finally, an advised change to a private family soon swept away the last vestige of them.

Several patients who had partly recovered and remained in a stationary condition have been sent home at a certain point in their hospital residence to derive marked benefit from change of scene and a return to old pursuits.

Many demented patients and many suffering from " primary mono-mania," who had become improved, have been confided to their relations when it has seemed that they would be well cared for and were not likely to injure themselves or others. This policy has largely prevented the considerable annual increase of former years.

The system of allowing many of the patients in the better halls the liberty of the immediate neighborhood of the Asylum has been continued somewhat more freely than last year, with only occasional abuse. The amount of mechanical restraint employed during the year has been slight, being one-half of one (1) per cent. by *day* and three-fourths of one (1) per cent. by night in men, and one (1) per cent. by day and one and one-half (1½) per cent. by night in women. Seclusion has been occasionally resorted to as a temporary expedient in some highly-excited cases, as in the mania of paresis and epilepsy.

Amusements have been continued as usual during eight (8) months of the year. The Monday-night dances have been attended with an interest unabated at the close of the season. The Wednesday-evening parties for the playing of cards and other games have been much enjoyed. Generally on Friday evenings entertainments of a professional or amateur character have been held, which have consisted of concerts, dramatic performances, tableaux, lectures, readings, stereopticon exhibitions and variety entertainments. For a most enjoyable concert on September 9th we are indebted to the Aeolian Glee Club, of Hoboken, kindly assisted by Misses Maurer and Wiggins and Mrs. Francis. And to Miss E. A. Allen and the Hoboken High School Alumni Association many thanks are due for a very interesting dramatic performance entitled " Our Boys," given October 28th.

On May 20th a party of one hundred patients attended the circus at Morristown. On the evening of July 4th a display of fireworks was given on the Asylum grounds.

Divine service has been conducted on Sunday afternoons by the Rev. Drs. Merritt and Erdman and Rev. Messrs. Parker, Crawford and Holloway.

Services on Thanksgiving Day and on Christmas were conducted respectively by Rev. Mr. Holloway and Rev. W. S. Ludlum, M.D. On Sunday evenings a large company has assembled for the singing of the " Gospel Hymns."

The medical library has been added to during the year by the purchase of ten works on the various branches of medicine. The Asylum is indebted to Mr. J. J. Meeker for the gift of " Hammond's Diseases of the Nervous System." The ward libraries have received a small contribution of miscellaneous works — the gift of Miss H. G. Wells.

In accordance with a resolution of your Board requiring that the attendants wear some designation of their office, tarlatan caps edged with ruching were provided for the female attendants and red silk buttons, to be worn in the lapel of the coat, were devised for the male attendants.

On April 8th Dr. Wm. Mabon resigned the position of Third Assistant Physician and Dr. D. W. McFarland was advanced to the vacant place. The position of Fourth Assistant Physician was held from May 5th to June 29th by Dr. E. C. Rushmore, who came to fill the vacancy temporarily. Dr. A. McFarlane was appointed Fourth Assistant Physician and entered upon his duties July 13th. On October 1st Drs. W. L. Russell and C. P. Wertenbaker resigned the positions respectively of First and Second Assistant Physicians, after an honorable service of nearly three years.

To all of these gentlemen I am much indebted for their hearty co-operation in conducting the affairs of the medical department.

On October 24th Dr. H. C. Harris was appointed First and Dr. W: P. Spratling Fourth Assistant Physician, and Drs. McFarland and McFarlane were advanced respectively to the places of Second and Third Assistant Physicians.

On August 1st Mr. J. H. Brown, who had served faithfully as Apothecary for seven years, resigned his position. The place was filled by the appointment of Mr. S. T. Quinn, who has performed his duties to my entire satisfaction. The supervisors and attendants, with but

few changes in the female wings, have continued earnest in their difficult and delicate duties.

To your Board I return my thanks for your kindly advice and assistance freely accorded at all times.

Respectfully submitted,

EDWARD C. BOOTH,
Medical Director.

Morris Plains, N. J., November 1st, 1887.

EXTRACT FROM THE BY-LAWS.

ADMISSION OF PATIENTS.

ORDER OF WARRANT FILED.

1. Whenever a patient is sent to the Asylum by the order of any court, justice or judge, the order or warrant, or a copy thereof; by which such person is sent, shall be lodged with the Medical Director.

CLEANLINESS.

2. Each patient, before admission, shall be made perfectly clean, and be free from vermin or any contagious or infectious disease.

CLOTHING FOR MEN.

3. Each male patient shall be provided with at least two shirts, a new and substantial coat, vest and pantaloons, of strong woolen cloth, two pairs of socks, a black cravat, a good hat or cap, and a pair of new shoes or boots, together with a comfortable outside garment.

CLOTHING FOR WOMEN.

4. Each female patient, in addition to the same quantity of under-garments, shoes and stockings, shall have a flannel petticoat, two good dresses, also a cloak or other outside garment. In case the patient is so much excited as not to admit of being thus clothed, other clothing that can be kept on, that is comfortable and in sufficient quantity, with a change thereof, may be substituted.

It is very desirable that extra and better apparel should be sent with those accustomed to it, that when they become better, and when they attend religious worship, walk or ride out, their self-respect may be preserved.

In all cases the patient's best clothing should be sent; it will be carefully preserved, and only used when deemed necessary for the purposes above mentioned.

JEWELRY, ETC.

5. Jewelry and all superfluous articles of dress, knives, &c., should be left at home, as they are liable to be lost.

HISTORY OF CASE.

6. A written history of the case should be sent with the patient, and, if possible, some one acquainted with him should accompany him to the Asylum, from whom minute, but often essential, particulars may be learned.

TERMS OF ADMISSION.

7. The price of board, including washing and attendance, for all who are supported at public charge, is three dollars per week. For private patients, or those supported by themselves or friends, the price varies from five to ten dollars, according to the trouble and expense incurred, and according to their ability to pay. Higher prices are paid by a special agreement with the Warden for extra attention and accommodations. Payments required to be made quarterly, in advance, from date of admission.

BOND, ETC.

8. A bond, with satisfactory sureties, will be required for the payment of the board and expenses and for the removal of the patient when discharged, of all persons except those sent at the expense of the counties.

Those who bring friends should be prepared to give such a bond, and, *if strangers, briny evidence of their responsibility.*

FORMS AND DIRECTIONS

FOR THE ADMISSION, &c., OF PRIVATE INSANE PATIENTS.

FORM OF REQUEST.

The undersigned, of the _____ of_____ , in the county of , is desirous of placing in the " State Asylum for the Insane, at Morris-town, N. J.," and hereby requests the admission therein of_____ , a resident of the _____ of , who is aged _____ years, and has been is a native of , in the State of , and is of the undersigned.

Dated_____ , 18—.

FORM OF CERTIFICATE OF INSANITY BY A PHYSICIAN. 18-.

I, _____, physician of the township of , in the county of ,

do certify under oath that I have examined into the state of health and mental condition of , of the township of , in the county of _____ , and that is, in my opinion, insane, and a fit subject to be sent to the State Asylum for the Insane.

Sworn to and subscribed before me this _____ day of_____ , **A.** D. 18—.

FORM OF BOND.

Whereas, , of_____, in the county of _____ , an insane person, has: been admitted as a patient into the " State Asylum for the Insane, at Morristown, N. J. ;" now, therefore

We, the undersigned, in consideration thereof, jointly and severally bind ourselves to, Treasurer of said Asylum, to pay to him and

his successors in office, the sum of dollars and cents per week for the care and board of said insane person, as long as shall continue in said Asylum, with such extra charges as may be occasioned by requiring more than ordinary care and attention ; and, also, to provide with suitable clothing, and pay for all such necessary articles of clothing as shall be procured for by the Warden of the Asylum ; and to remove from the Asylum whenever the room occupied by shall be required for a class of patients having preference by law, or whenever shall be required to be removed by the Managers ; and, also, to pay all expenses incurred by the Managers or Warden in sending said patient to friends, in case one or either of us shall fail to remove said patient when required to do so as aforesaid ; and if shall be removed at the request of friends before the expiration of six calendar months after reception, then to pay board for twenty-six weeks, unless shall be sooner cured ; and, also, to pay, not exceeding fifty dollars, for all damages may do to the furniture or other property of said Asylum, and for reasonable charges in case of elopement, and funeral charges in case of death ; such payments for board and clothing to be made quarterly in advance, from date of admission, and at the time of removal, with interest on each bill from and after it becomes due.

In witness whereof, we have hereunto set our names this day of , in the year 1 8 - .

Name, Residence, P. O. Address.

Name, Residence, P. O. Address.

Signed and sealed in the presence .

FORMS AND DIRECTIONS

FOR THE ADMISSION, &c., OF INDIGENT AND PAUPER INSANE PATIENTS.

FORM OF ORDER, ETC., FOR JUDGE.

I, A. B., one of the Judges of the Court of Common Pleas of the county of _____ , and State of New Jersey, do hereby report that application has been made to me on behalf of C. D., a resident of the [township, ward or borough] of , in said county, alleged to be insane, [and in indigent circumstances or a pauper, as the case may be,] and that pursuant to the act of the Legislature in such cases made and provided, I have called before me Dr. , a respect-able physician, and other credible witnesses, to wit, [state their names,] and having examined them and fully investigated the case, and not deeming it necessary to call a jury, I do hereby decide and certify that satisfactory proof has been adduced before me showing the said 'C. D. to be an insane person, and that _____ has not sufficient estate to support _____ under said visitation of insanity.

Given under my hand at _____, in the county and State aforesaid, this _____ day of , in the year of our Lord one thousand eight hundred and _____

A. B.

CERTIFICATE OF PHYSICIAN.

County, ss.—I, A. B., being duly sworn according to law, do certify and declare that I have examined into the state of health and mental condition of C. D., of the [township, ward or borough] of of said county of , and that I am of opinion that is insane.

A. B., *Physician.*

Sworn and subscribed before me this_____ day of _ , A. *P*'1 8 -

A. B., *Judge, &e.*