Twelfth annual report of the managers of the State Lunatic Asylum : made to the Legislature January, 1854 / New York State Lunatic Asylum at Utica.

#### Contributors

New York (State). State Lunatic Asylum. Beck, T. Romeyn. Wetmore, Edmund A. Gray, John P.

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# TWELFTH ANNUAL REPORT

OF THE

# MANAGERS

OF THE

# STATE LUNATIC ASYLUM.

Made to the Legislature January, 1854.

### UTICA:

GROVE & BAILEY, PRINTERS, OBSERVER BUILDINGS.



State of New-York.

# IN SENATE, JAN. 17, 1855.

## TWELFTH ANNUAL REPORT

## Of the Managers of the State Lunatic Asylum.

UTICA, Jannary 16, 1855.

To the Hon. H. J. RAYMOND, President of the Senate:

Sir—Herewith is submitted the Annual Report of the Managers of the State Lunatic Asylum.

Respectfully yours,

T. ROMEYN BECK, CHAS. A. MANN, N. DEVEREUX, SILAS D. CHILDS, S. N. DEXTER, CHRISTOPHER MORGAN. E. A. GRAHAM, WILLIAM TRACY, DANIEL P. BISSEL.



[Senate, No. 14.]

[u. n. 2,000I.]



## OFFICERS OF THE ASYLUM.

#### MANAGERS.

T. ROMEYN BECK, M. D., PRESIDENT, ALBANY. CHARLES A. MANN, UTICA. SILAS D. CHILDS, " NICHOLAS DEVEREUX, " S. N. DEXTER, WHITESBORO. CHRISTOPHER MORGAN, AUBURN. E. A. GRAHAM, UTICA. WILLIAM TRACY, " D. P. BISSELL, M. D., "

#### RESIDENT OFFICERS.

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JOHN P. GRAY, M. D., SUPERINTENDENT AND PHYSICIAN. E. H. VAN DEUSEN, FIRST ASS'T PHYSICIAN. JOHN B. CHAPIN, SECOND ASS'T PHYSICIAN. HENRY B. BARTLETT, STEWARD. MRS. MARY E. BARTLETT, MATRON.

EDMUND A. WETMORE, TREASURER, UTICA.

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### TWELFTH ANNUAL REPORT

# Of the Managers of the State Lunatic Asylum, for the year ending November 30th, 1854.

The Managers of the New-York State Lunatic Asylum respectfully submit the following

#### REPORT.

The Institution committed to our management has been in successful operation for about twelve years, having been opened for the admission of patients on the 16th of January, 1843. In that period 4,313 patients have been admitted within its walls, and have enjoyed the benefits which it confers. Of this number, 1,789 have been discharged recovered, 55 much improved, 640 improved, 868 unimproved, and 511 have died; leaving 450 patients remaining in the Institution at the close of the year.

For a full statement of its operations and results during the last year, we refer to the annual report made to us by the superintendent, and which is herewith submitted to the Legislature. From this it will be seen that the whole number of patients under treatment during the year was 836, of whom 164 were discharged recovered, 42 improved, 115 unimproved, and 65 have died.

Our former superintendent, Dr. N. D. Benedict, returned about the last of May, from the South, where he had spent the previous winter for the benefit of his impaired health, and on the 10th of June tendered to the Board of Managers his resignation of the office of superintendent, to take effect on the 30th of that month; and on the 19th day of July, Dr. John P. Gray, who had been the first assistant physician under Dr. Benedict, and had the charge of the Institution during his absence, was unanimously appointed superintendent, in place of Dr. Benedict, resigned. Dr. Edwin H. Van Deusen, second assistant, was appointed first assistant physician.

On the 19th day of September, Dr. H. S. Swift, acting second assistant, tendered his resignation, to accept the position of resident physican at the New-York Hospital; and on the 28th, Dr. John B. Chapin was appointed second assistant physician, to fill this vacancy. Dr. Chapin had previously been connected with the New-York Hospital.

The officers who have had the responsible charge and care of the Asylum, have discharged their arduous duties with great diligence and fidelity, and in a manner which entitles them to the commendation of the Board of Managers.

From the annual report of the treasurer, herewith submitted, it will be seen that the current receipts for the support of patients have been equal to the payments for current expenses, leaving a balance of \$1,969.52 in the treasury at the end of the year. The recently enhanced price of materials and labor, and of all the staple articles of provisions, so far increased the expenses of supporting the Institution, that we found it necessary, on the 1st of August last, in order to make our receipts equal our expenditures in the future, to raise the price of board for county patients from two dollars and fifty cents to three dollars per week.

An act was passed on the 13th of May, 1846, authorising the officers of the State Prisons to send to this Asylum insane prisoners under their charge. Since the passage of that act, 68 convicts from the State Prisons have been sent to this Institution, 20 of whom are now here. This class of patients are necessarily placed in the same apartments with the others. They are generally troublesome, and difficult to manage, and are unfit companions for the patients with whom we are compelled to allow them to associate. We have no suitable places of safety and security for them; several, dangerous to the community, and who have been convicted of homicide and other

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crimes of a violent character, have escaped, and are now at large. The welfare of society requires that this description of persons should be carefully guarded, and their escape prevented, if possible. The law authorising insane convicts to be sent here, was not passed until after the Asylum was built, and consequently no apartments properly adapted for them were provided.

We respectfully suggest that some suitable provision should be made for the proper care and treatment of this class of patients, in one of the prisons, where they may be securely kept, and placed under the charge of physicians and attendants, who will treat them as insane persons, and in a manner best adapted to their restoration. We strongly commend this subject to the attention of the Legislature.

In 1852 an appropriation was made by the Legislature to enable us to substitute steam, in lieu of hot air furnaces, for warming the Asylum, and to introduce in connection therewith, a more perfect and effective system of ventilation. The hot air furnaces, in the basements, had become so much burned out, by several years use, that they could no longer be retained with safety, or comfort, and during the latter period of their use, the buildings were greatly exposed to fire, from their decayed and imperfect state.

In the original construction of the Asylum, no effective or adequate mode of ventilation was provided, and some method of effecting this, was indespensable to the health and comfort of the patients. After careful investigation, as to the most approved mode of warming and ventilating so large an establishment, we adopted the plan of warming the entire range of buildings, by steam pipe, of one inch diameter, placed in chambers in the basement. and extending through the whole length of the buildings, and with it a system of forced ventilation, by means of mechanical power, by which fresh air in large quantities (warmed in cold weather by passing over the steam pipes in the basement) is forced through the house. The execution of this plan was not entered on until the spring of 1853, and necessarily required extensive alterations of the building, and a large amount of mechanical labor. It was necessary to erect a new building of brick, in rear of the Asylum, 130 by 40 feet, two stories in height. The first story of this builing is divided into four apartments, one for the steam boiler, one for the engine, one for a wash room, and one for the fans or blowers. The upper story is used for ironing and drying rooms. The washing, ironing and drying rooms, were accomodations much needed, and which greatly facilitate and lessen the labor required in that department.

In the boiler room are placed two drop flue boilers of eight feet diameter, and 26 feet in length, made by Messrs. Corliss & Nightingale, of Providence, after a tried and approved model. They are calculated to be of capacity to generate steam, amply sufficient to warm at all times the whole establishment, and to drive the engine, and at the same time heat the water used for bathing, washing clothes, and cooking the vegetables consumed in a household numbering over 550 persons. The boilers connect by an under-ground flue with a chimney 100 feet high and ten feet diameter at the base.

The engine is of thirty horse power and is used for driving the blower, pumping water, and propelling the washing machinery. The warm air chambers are constructed in the basement halls, and are seven feet wide, ten feet high and about 400 feet in length. The steam pipe for heating the air chambers consists of about 53,000 feet of one inch wrought iron pipe, 1,600 feet of three quarter inch pipe and 1,700 feet of cast iron pipe, and was put up by Mr. Joseph Nason, of New York. The warm air is conveyed from the air chambers in the basement into the different stories above, by flues twelve inches square, constructed in the brick partition wall, and opening into the halls above, near the ceiling, at distances of nine feet. A part also open into the rooms near the floor. On the outer side of the warm air chamber a passage is constructed, in the basement for the transmission of cold air, which is conveyed to the warm air chambers, through openings at the bottom of the wall. A covered passage ten feet square extends from this cold air or equalizing chamber to the blower or fan in the boiler house. The blower or fan is fourteen feet in diameter revolving in a wooden casing and at its ordinary

speed of seventy revolutions forces into the cold air chamber seventy thousand cubit feet of air per minute. The air thus introduced passing through openings in the bottom of the wall into the warm air chamber, is heated by the steam pipe as it passes, and transmitted through flues twelve inches square, into the various apartments of the house, thence passing through registers near the ceiling and floor of each room into ventilating flues eight inches square, it is conveyed by a common trunk through the attics, and discharged at the cupola.

The arrangements are such that the heat and ventilation can be regulated and controlled at pleasure. The apparatus and flues for warming and ventilating are constructed and in use in only that half of the Asylum occupied by the female patients, and in the centre building, occupied by the officers of the Institution. From our experience thus far, we feel warranted in pronouncing the plan entirely successful and satisfactory. There is probably no public institution better warmed and ventilated than the half of this Asylum appropriated to female patients. All previous attempts to secure a sufficient quantity of pure air by what may be termed natural ventilation, have failed, but the mode now adopted seems to be adequate and effective.

No one acquainted with similar institutions can, we think, fully appreciate its importance and the great benefits resulting from it to the health and comfort of the patients. The work from its character and the manner in which it was required to be done, was necessarily expensive and more so than we anticipated before it was commenced. It would have cost much less if it had been done in the original construction of the building. We were obliged to take down some of the inner walls and relay them for the purpose of constructing the heating and ventilating flues, and the whole was necessarily done at a disadvantage, as the house was filled at the time with insane patients.

The wing now occupied by the male patients is neither sufficiently warmed nor ventilated. As a temporary measure, to enable us to get through the present winter, we have caused steam pipe to be placed in the different halls occupied by the men, with a view of warming those apartments for the present by direct radiation, but in very cold weather the heat is not sufficient, so that we may be obliged to put up some stoves, which is to be avoided if possible, as they are always dangerous in apartments occupied by the insane. During the coldest days in the month of December, the temperature could not be raised above 58° Fahr. and at no time above 60°. The pipe thus placed in the halls for direct radiation is adapted to use in 'the warm air chambers in the basement, when the plan for warming and ventilating is carried out through the remaining portion of the house.

From the treasurer's report, it will appear that he has paid on account of warming and ventilating the buildings \$31,494. 32 beyond the amount appropriated by the Legislature for this purpose; and the Asylum is indebted to Mr. Joseph Nason of New York, in about the sum of \$2,058 on his contract for pipes in the warm air chambers, and in the sum of \$4,086 for pipe and fixtures used for direct radiation in the halls occupied by the men.

Having commenced the work for one-half of the house, we are under the necessity of completing it to that extent, or abandon the Institution and throw its inmates out of doors; and when the work had been done by mechanics and laborers who needed their pay for their support, we felt under a strong obligation to provide the means of paying them, and of which we were destitute by reason of no appropriation having been made for the purpose by the last Legislature. We accordingly made an arrangement with the bank at which the treasurer keeps his account, to advance the money temporarily to enable us to pay the mechanics and laborers who had furnished the materials and done the work.

We have made careful estimates of what it will cost to complete the plan for warming and ventilating the remaining portion of the Asylum. We have on hand a considerable amount of pipe, castings, and fittings that can be used in the work yet required to be done. We estimate, and with great confidence, that with the materials on hand we can complete the remainder of the work, and pay the amount owing for

what has already been done, with sixty thousand dollars, the sum stated as necessary in our last annual report, and we respectfully ask an appropriation of this amount. The work has been a costly one, but when completed, we think, from the experience we have thus far had, it will be worth its cost, greatly promote the health and comfort of the patients, and afford much greater security against the danger of fire. There are now no fires kept in the house, except in three cooking ranges in the kitchen.

Since the publication of the last annual report, this Institu tion has met with a severe loss in the death of one of its managers, Mr. Alfred Munson, who for ten years had discharged the duties of president of the board. He died May 6th, 1854.

All of which is respectfully submitted.

T. ROMEYN BECK, CHAS. A. MANN, SILAS D. CHILDS, N. DEVEREUX, S. N. DEXTER, E. A. GRAHAM, CARISTOPHER MORGAN; WILLIAM TRACY, DAN'L P. BISSELL.



### TREASURER'S REPORT.

## To the Manugers of the N. Y. State Lunatic Asylum :

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The treasurer of the Asylum respectfully submits the following summary of his receipts and payments, for the year ending November 30th, 1854:

#### GENERAL ACCOUNT.

# Receipts.

	1	Dec. 1, 1853, to Dec. 1, 1854 :		
F	rom	last account, balance \$	2,561	05.
	" .	sundry counties, for the support of patients, 4	7,164	90
	**	sundry private patients, 2	5,410	89>
	"	the State Treasurer, for officer's salaries,	6,057	28
	**	" insane convicts,	3,178	87
	"	" Mark Jack, an Indian,	143	10
	""	the steward, for hides, pelts, cows, old iron,		
	46	copper, lead, &c., sold,	4,011	69
	"	E. Peck, overpayment refunded,	20	00.
	"	Clark and Jerolaman, for a span of horses,	552	42
	"	M. Welsh, refunded,	4	00
	"	New York Central R. R., damage in freight'g,	30	00
	66	J. F. Seymour, for a span of horses,	287	00

#### \$89,421 20.

#### Payments.

Dec. 1, 1853, to Dec. 1, 1854:		
For provisions and household stores,	\$30,420	41
" furniture,	6,159	26.
" attendants, assistants, and labor,	16,092	86
" fuel and lights,	6,906	19
Carried forward,	\$	

Brought forward,	8
For miscellaneous expenses,	618 18
" farm, barn, garden, and grounds,	3,240 56
" books and stationery,	255 84
" steward's petty expenses,	1,300 00
" officer's salaries,	6,057 28
" medicines and medical supplies,	1,163 05
" additions, alterations, and repairs,	6,919 80
" improvement of fruit grounds,	68 30
" clothing of patients, (advances,)	7,589 13
" patients' miecellaneous expenses,	634 15
" sundry patients, (refunded on their discharge,).	26 67
1854, Dec. 1. Balance in the treasury,	1,969 52
	\$89,421 20

Account for Warming and Ventilating the Buildings by Steam, and repairs connected therewith.

#### Receipts.

1853, Dec. 14. From the State Treasurer, of the ap-	
propriation for 1853,	\$5,000 00
22. From the State Treasurer, of the ap-	
propriation for 1853,	5,000,000
30. From the State Treasurer, of the ap-	H
propriation for 1853,	5,000 00
1854, Sep. 28. Corliss & Nightingale, overpayments	I DE H
refunded,	100 00
Dec. 1. Balance due the Treasurer,	31,494 32

\$46,594 32

#### Payments.

1853, Dec. 1, to Dec. 1, 1854:

For materials and work, according to report in detail, \$46,594 32

#### EDM'D A. WETMORE, Treasurer.

Dated Utica, Dec. 1, 1854.

# TWELFTH ANNUAL REPORT

# Of the Superintendent of the New York State Lunatic Asylum for the year ending November 30, 1854.

#### To the Managers of the Asylum :

GENTLEMEN—Pursuant to the laws and regulations of the Institution, the following report of its general condition, with the principal facts and results of the year, is respectfully submitted.

	Males.	Females.	Total.
Number of patients at the com-			
mencement of the year,	239	207	446
Admitted during the year,	191	199	390
and the set of the second set of the second second			
Whole number treated,	430	406	836
	==	=	0 ====
Daily average under treatment,			444
Ordinary capacity of the house,			440
ordinary capacity of the house,			440
Discharged, recovered,	98	66	164
improved,	22	20	42
unimproved,	55	60	115
Died,	29	36	65
and the borner of the second second	204	182	386
and the state of the state of the second	==	=	==
Remaining November 30, 1854,	226	224	450
	==	===	-
Applications refused,	36	72	108
Discharged to make room for re-			
cent cases,			51
Total unprovided for,			159
a otar anprovided for,			

The above tabular statements show that during the year we have received as large a number of patients as usual, and that the daily average under treatment has uniformly been above the capacity of the Institution.

The recoveries compare favorably with those of other years, being 42.05 per cent of the admissions.

Many of those discharged "improved," were removed by our advice, having received all the benefit which could be conferred by hospital treatment, and in a state of mind either to render themselves useful, or to be easily taken care of by their friends. Some were readmissions. They had been discharged improved in former years, but want of judicious care and of forbearance and kindness from those about them, induced an habitual state of irritation, and finally produced a proxysm of mania. Others had, for years, been sufferers from bodily diseases, which kept them in a state of irritability-a chronic state in which the temper and disposition were principally They regained a good degree of health and selfaffected. control, and returned home in a few months. These latter cases might be treated as successfully at home as in an asylum. They require kindness, gentleness, tenderness. This state is one of peril, which, by improper treatment, often results in true derangement, but which, by due forbearance and consideration, might generally be averted.

Of the one hundred and fifteen discharged "unimproved," fifty-one were under treatment less than a year. These were causes unfavorable for recovery, and their removal was made necessary by the pressing applications for recent cases, to which the law gives preference. Nineteen were removed after two years residence, under the law of April 7th, 1842, and seventeen on account of the long cintinuance of their insanity. Of the remaining twenty-eight, some were taken away by their friends on account of their inability to support them; some were drunkards or opium eaters, not likely to be benefitted, and others were cases received under special agreement until their relatives could obtain places for them in the Institutions of other States.

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We would not convey the idea that these were all incurable, but, on the contrary, a number of them would have been benefited by more protracted treatment, and many, without doubt, would have ultimately recovered.

Insanity is a disease chronic in its nature, and therefore the more uncertain in its ultimate issues; and until serious organic changes have taken place in the brain, the subjects of this worst of human ills should not be deprived of any means calculated to restore or improve them. Jacobi remarks that "the continuance of the disease for many years is not, of itself, a sufficient reason for pronouncing insanity incurable;" a fact fully sustained by the previous experience of this Institution; and Esquirol states that of all the recoveries under his care (2,000), more than one-half recovered after the second year.

The removal of patients likely to be benefited by prolonged treatment on account of the expiration of an order of indigence, or of the same class supported by their friends, to make room for the reception of others at public charge, and of patients laboring under mental diseases of long standing, and not complicated with serious bodily affections, is one of the most painful duties we are called upon to perform; and, although sanctioned by the law governing the admission of patients into the institution, it is simply a choice between two great evils of nearly equal magnitude.

The provisions for the care and treatment of the insane are, at best, more or less imperfect, even in well organized asylums, and the principle governing their removal in an "unimproved" state, should look solely to their benefit by offering in the change increased facilities for physical comfort to the hopeless, and to the more favorable, additional means of restoration.

Those removed to county houses are generally cases of chronic dementia, and the more violent cases of chronic mania; the classes requiring the most constant vigilance and unremitting attention to make them even comparatively comfortable. Many of the former, as to their wants, are in the condition of children, or helpless old age. They are filthy in their habits, having no idea of personal cleanliness. They [Senate, No. 14.]

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require to be washed, dressed, to have their food prepared for them on their plates, to be taken to the table, and to be undressed and placed in bed at night; and in cold weather the night attendants must often arrange their bed clothing, which, having thrown off, they do not think of replacing. With all our facilities, it requires, for the proper care of these persons, an attendant for every six patients. I need not say what treatment they receive in county houses, and yet we transfer annually not less than fifty poor demented patients!

Many of the superintendents of the poor, especially those who have held the office for several successive years, remove persons belonging to these classes with great reluctance; and during the year several cases of dementia, subject to paroxysms of violence, sent away in former years, have been returned to us from county houses on account of their want of means to take proper care of them. One patient had been for more than a year chained to the floor of his cell, and destitute of clothing and bedding, because his habits were destructive and filthy. He had lain upon straw, which was changed two or three times a week, and the person who attended him "always carried a cowhide, because he always attacked him, and he could only control him by whipping him." This man is now quiet and comfortable. Application has recently been made for the return of another, whom the superintendent of the poor states "has been in chains for months, and is in the most filthy and wretched condition."

We have become somewhat habituated to the policy of placing the insane, not likely to recover, in poor houses among common paupers, and think it no serious wrong; but viewed in a proper light it must be so considered.

A pauper in health has possession of his intellectual and moral faculties, and is capable of exercising self control commensurate with his original ability and degree of education, and is held responsible for all his acts. His pecuniary circumstances place him in a poor house. An insane person by reason of disease, is irresponsible and incapable of self government, and requires to be controlled by others. Insanity demands medical advice and special care in all its stages. It afflicts without regard to social position or education, and, generally, cannot be avoided by any ordinary knowledge or forethought; and, in women especially, is often the result of labor in the care of families and in watching over the sick.

The law provides for the treatment of the insane in an as ylum only while their condition is favorable for recovery. Now, can it be just that the care of these persons should diminish in the ratio of their increasing helplessness? that the spirit of charity should withdraw further and further as they become more dependent on her hand, and when they are utterly helpless leave them to abuse and neglect?

It will be observed that though we have admitted so large a number we have refused *one hundred and eight* private patients, which, in addition to the fifty-one removed against the entreaties of friends or public officers, in order to receive recent cases, makes a total of *one hundred and fifty-nine* for whom we have been unable to provide.

The removal of old residents commenced about six years ago, and has been resorted to whenever applications became numerous and pressing, and until the last year most of the recent cases have thus been provided for. All of the old residents, whom we could with any degree of propriety send away, have already been removed, and, during several months past, we have been compelled to refuse many recent cases, and recommend them to institutions in other States. Judging from the condition of the house at the present time, we can scarcely expect to receive during the coming year, more than one-half for whom application will be made. All these facts, taken in connection with the fact of the crowded condition of institutions in adjoining States, urge imperatively the necessity of further and immediate provision for the insane of this State.

It is again necessary to call your attention to the large number of male insane convicts from the State prisons, now in the Asylum. No argument is necessary to show the impropriety and moral wrong of mingling this class of persons with ordinary patients. It would be quite as consistent to send the sick convict to our general hospitals, as the insane convict to this institution.

We would recommend the erection of a central criminal establishment, in connection with the hospital department of one of the State prisons, to which convicts, now in the Asylum, or hereafter becoming insane in prison, could be at once removed; but as this would require time, we would respectfully suggest that the law be so modified as to direct that each prison make temporary arrangements for its insane, until more suitable provisions can be established.

Our arrangements for taking care of the sick, though probably as good as in other similar institutions, must be regarded as very imperfect. All sick patients should be immediately removed from the wards to a hospital department, properly arranged, where every attention demanded by their condition could be bestowed; where the physician could visit them frequently during the day, and in the night, if necessary, without disturbing others; where those very ill could be visited, and, if advisable, nursed by their friends, and the dying be administered to, without exciting the fears of others. Such an arrangement would be especially desirable on the occurrence of contagious or infectious diseases, when isolation is so important. In December last, a case of small pox occurred, which, though isolated as much as possible, was followed by others, and in the two months following, we had twenty-three cases. All the patients and attendants in the house were vaccinated, and all those admitted for several months afterwards. By great precautions the disease was confined entirely to the male de-The uneasiness and panic caused by the presence partment. of such a disease, both among the patients and attendants, are productive of evil, and seriously affect the peace and general order of the house; and the occupation of some of the wards by the sick, impairs the power of classification, in addition to the increased labor and anxiety it imposes upon the medical staff. Two of the attendants were early attacked, and, after recovery, took care of the convalescents, and some cases of varioloid, which followed. We should recommend, for hospital purposes, the reconstruction and arrangement of the rear two story building now in part abandoned.

#### STATISTICS.

General statistics of the Asylum from its opening, January 16th, 1843, to December 1st, 1854.

Total number	er of admissi	ions,	4,313
do	dischar	rges,	3,863
do	discharge	d recovered,	1,789
do	do	much improved,	55
do	do	improved,	640
do	do	unimproved,	868
do	died,		511

Ages of those admitted and of those discharged recovered, during the year ending November 30, 1854.

AGE		Admitted.			Discharged recovered.		
		Males.	Females.	Females. Total.		Females.	Total.
From	10 to 20,	18	13	31	8	11	19
**	20 to 30,	57	61	118	34	20	54
"	30 to 40,	54	56	110	21	19	40
66	40 to 50,	35	34	69	16	7	23
66	50 to 60,	16	26	42	12	5	17
66	60 to 70,	9	9	18	5	4	9
**	70 to 80,	2		2	2		2
( 2 )	Total,	191	199	390	98	66	164

#### Habits, Education, &c.

Of the whole number admitted, three hundred and ninety, forty-four males and four females were intemperate, and eightyfive males and forty-four females were accustomed to the use of tobacco; one hundred and ten males and eighty-four females were not members of any religious society; eighteen had received an academic and two hundred and fifty-nine, a common school education; seventy-two could only read, and forty-one had no education at all.

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# NATIVITY.

New York,	265
Ireland,	36
Germany,	17.
Connecticut,	13
England,	13
Massachusetts,	12:
New Hampshire,	91
Vermont,	5
Wales,	3
Canada,	3
France,	3
Pennsylvania,	2
Scotland,	2'
New Jersey,	2
Maine,	2.
Rhode Island,	2
Ohio,	1
Total,	390,

# OCCUPATION.

Farmers,	74
Farm laborers,	20
Laborers,	17
Merchants,	11
Teachers,	12:
School boys,	7
Carpenters,	6
Clerks,	5.
Blacksmiths,	5
Printers,	3
Tailors,	3.
Clergymen	$2^{\cdot}$
Physicians,	2
Shoemakers,	2
Seamen,	2

# OCCUPATION.-(CONTINUED.)

Boatmen,	$^{2}$
Jewellers,	2
Students,	2
Machinists,	2
Weavers,	2
Pedler,	1
Upholsterer	1
Grocer,	1
Express Agent,	1
Cabinet maker,	1
Quack doctor,	1
Gate keeper,	1
Druggist,	1
Tanner and currier,	1
Instrument maker,	1
Tanner,	1
Mason,	1
Carriage maker,	1
Barber,	1
Hatter,	1
Painter,	1
Housekeepers,	106
House work,	60
School girls,	12
Seamstresses,	10
Milliners,	4
Factory girl,	1
Total,	390
	And in case of the local division of the loc

# PROBABLE CAUSE OF DERANGEMENT.

Intemperance and vice,
Popular errors,       7       5       12         Puerperal,       14       14         Domestic trouble,       5       25       30         Change of life,       8       8         Defective training,       5       6       11         Grief,       4       10       14         Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7       Fatigue and anxiety,       1       3         Poustneal irregularities,       20       20       10       5       15         Menstrual irregularities,       20       20       10       5       15         Menstrual irregularities,       1       1       1       1       1         Want and destitution,       2       3       5       3       8         Coup de soleil,       2       2       2       2       2       2       2       2       2       2       2       2       2       2
Purperal,       14       14         Domestic trouble,       5       25       30         Change of life,       8       8         Defective training,       5       6       11         Grief,       4       10       14         Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20         Injuries of head,       4        4         Old age,       3       3       6         Religious excitement,       1       1       1         Want and destitution,       2       3       5         Seduction,       1       1       1         Loss of sleep,       5       3       8         Coup de soleil,       2       2       2
Domestic trouble,       5       25       30         Change of life,       8       8         Defective training,       5       6       11         Grief,       4       10       14         Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20       20         Injuries of head,       4       4       4         Old age,       3       3       6         Religious excitement,       1       1       1         Want and destitution,       2       3       5         Seduction,       1       1       1       1         Loss of sleep,       5       3       8       8       2       2         Dysentery,       2       2       2       2
Change of life,       8       8         Defective training,       5       6       11         Grief,       4       10       14         Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20       20         Injuries of head,       4
Defective training,       5       6       11         Grief,       4       10       14         Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20       20         Injuries of head,       4        4         Old age,       3       3       6         Religious excitement,       1        1         Want and destitution,       2       3       5         Seduction,       1       1       1         Loss of sleep,       5       3       8         Coup de soleil,       2       2       2         Dysentery,       2       2       2         Dysentery,       2       2       2         Uterine diseases,       4 <td< td=""></td<>
Grief,
Malaria,       1       1       2         Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20       20         Injuries of head,       4
Phthisis pulmonalis,       3       5       8         Hereditary predisposition,       8       7       15         Predisposition from previous attacks,       5       5       10         Epilepsy,       4       3       7         Fatigue and anxiety,       1       3       4         Business perplexities,       10       5       15         Menstrual irregularities,       20       20         Injuries of head,       4       .       4         Old age,       3       3       6         Religious excitement,       1       .       1         Want and destitution,       2       3       5         Seduction,       1       1       1         Disappointment in love,       1       1       1         Loss of sleep,       5       3       8         Coup de soleil,       2       2       2         Dysentery,       2       2       2         Uterine diseases,       4       4       4         Il health,       6       15       21         Excessive labor,       8       .       8         Opium eating,       8       . </td
Hereditary predisposition,
Predisposition from previous attacks,
Epilepsy,
Fatigue and anxiety,134Business perplexities,10515Menstrual irregularities,2020Injuries of head,44Old age,33Religious excitement,11Want and destitution,235Seduction,111Disappointment in love,111Loss of sleep,538Coup de soleil,222Fever,222Uterine diseases,44Ill health,61521Excessive labor,88Opium eating,22
Business perplexities,       10       5       15         Menstrual irregularities,       20       20         Injuries of head,       4       4         Old age,       3       3         Religious excitement,       1          Want and destitution,       2       3         Seduction,        1       1         Disappointment in love,        1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Fever,        2        2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Menstrual irregularities,       20       20         Injuries of head,       4        4         Old age,       3       3       6         Religious excitement,       1        1         Want and destitution,       2       3       5         Seduction,        1       1         Disappointment in love,        1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Pever,        2        2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Menstrual irregularities,       20       20         Injuries of head,       4        4         Old age,       3       3       6         Religious excitement,       1        1         Want and destitution,       2       3       5         Seduction,        1       1         Disappointment in love,        1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Pever,        2        2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Old age,
Old age,
Religious excitement,       1        1         Want and destitution,       2       3       5         Seduction,        1       1         Disappointment in love,        1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Fever,        2        2         Dysentery,        4       4         Il health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Want and destitution,       2       3       5         Seduction,       1       1       1         Disappointment in love,       1       1       1         Excessive venery,       1        1       1         Loss of sleep,       5       3       8       8         Coup de soleil,       2        2       2         Fever,       2       2       2       2         Dysentery,       2        2       2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8          Opium eating,        2       2       2
Disappointment in love,       1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Fever,        2        2         Dysentery,       2        2       2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Disappointment in love,       1       1         Excessive venery,       1        1         Loss of sleep,       5       3       8         Coup de soleil,       2        2         Fever,        2        2         Dysentery,       2        2       2         Uterine diseases,        4       4         Ill health,       6       15       21         Excessive labor,       8        8         Opium eating,        2       2
Excessive venery,
Coup de soleil,
Coup de soleil,
Fever,
Dysentery,
Uterine diseases,
Ill health,
Excessive labor, 8 8 Opium eating, 2 2
Opium eating, 2 2
*
Exposure to heat, 1 1
Remorse,
Child bearing, 1 1
Intemperance of father, 1 1 2
Loss of property, 2 2
Surgical operations, 1 1
Severe contusions, 1 1

	Males.	Females.	Total.
Nostalgia,		1	1
Prolonged lactation,		2	2
Acute rheumatism,		1	1
Excessive deplction,		1	1
Apoplexy,		1	1
Unascertained,	35	28	63
-			
	191	199	390
state a prost about it were a panal would be			

PROBABLE CAUSES OF DERANGEMEET .-- (CONTINUED.)

In sixty-three cases we have been unable to ascertain the probable cause of the mental disease. A majority of these are Irish and German, who have been in the country but a few months, and many of them not able to speak or understand English. They are brought to us by public officers, who are not only ignorant of their previous history, but even of that of the present attack of insanity. They are generally demented, and can give no account of themselves; but from the statements of some who have recovered, we are led to attribute their insanity to sickness, disappointment, and their homeless, friendless condition.

In connection with the causes of insanity, we would record the following important facts. The disease was hereditary in,

	Males.	Females.	Total
Paternal branch of family,	30	20	50
Maternal do	16	30	46
Paternal and maternal,	8	9	17
Insane relatives, brothers, sisters, or cousins,.	10	19	29
		TT	
Total in 390 admissions,	64	78	142
	Conception in the local division of the loca	And the second descent of the second	Statement and street

The above table shows that hereditary predisposition could be traced in 28.97 per cent. of the whole number admitted, and that 36. 41 per cent. had insane relatives. When it is remembered that in many cases no information in regard to the ancestors can be obtained, this result indicates an amount of hereditary insanity truly alarming. Mental alienation is said to be transmitted more frequently by the mother than by the father, but in the above one hundred and thirteen cases, those who have inherited the disease from the father are the most numerous. Statistics generally show that about twothirds of the cases of hereditary insanity are transmitted by the mother. M. Baillarger found that of four hundred and fifty-three cases, two hundred and seventy-one derived the predisposition from the mother, and one hundred and eightytwo from the father.

The form of the disease is very frequently transmitted by parent to child. We now have a case in which there is very little apparent intellectual disturbance, but the patient, at times, is seized with an irresistible impulse to commit suicide. The great-grand-father, grand-mother and uncle were similarly afflicted, and died by their own hands.

The influence of the predisposition may be so powerful as to produce insanity, without any other apparent cause. In one case, included in the preceding table, the maternal greatgrand-mother, grand-mother, mother and two aunts, the paternal grand-father, uncle and two sisters, and one brother, have been insane. In another, the maternal grand-mother, two uncles and mother, the paternal grand-father and uncle, and two brothers, have suffered from attacks of insanity. Many other cases might be mentioned in which no other exciting cause was required to develope the disease.

#### FORM OF INSANITY.

Males.	Females.	Total.	
53	63	116	
14	21	35	
12	7	19	
6	10	16	
12	14	26	
1	5	6	
5	2	7	
	13	13	
9	21	30	
57	36	93	
. 3	2	5	
4	1	5	
	53 14 12 6 12 1 5  9 57 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Mania, with epilepsy,	Males. 4	Females.	Total. 5
Mania, with general paralysis,	1		1
Drunkenness,	6	2	8
Feigned insanity,	2		2
Not insane,	2	1	3
a and a strategy and			
Total,	191	199	390

#### FORM OF INSANITY-(Continued.)

Thirty-four patients—eleven males and twenty three females—have been admitted during the year, with strong suicidal propensities. In several of these cases the ancestors had committed suicide—in two of them for three generations. In one male it was impulsive: he was also homicidal, and left home at his own request, because he felt the inclination to destroy his children—whom he loved tenderly—was gradually strengthening, while his power of resistance was growing weaker.

All the epileptics admitted, and the cases of general paralysis, had either epileptic or intemperate ancestors.

It will be observed from the above table that we have received thirteen who were not insane. One was a case of typhoid fever, one of chorea, and one a case of phthisis pulmonalis. Eight were drunkards, and two in whom insanity was feigned, in order to escape punishment in State Prison. Several, also, placed under the head of sub-acute mania, were simply cases in which there was mental prostration with tranquil delirium, the result of grave organic diseases. It is well known that when the brain and heart are seriously involved, there may be more or less prostration of the intellectual faculties, and when the lungs are implicated, often a state of exaltation not amounting to insanity. These persons were in such a feeble, bodily state that we could not refuse! them, although improper cases. for admission, fearing they might die on their return home, assome lived in distant parts of the State. Most of them never left their beds after reception, some died in a few days, and others lingered for several weeks.

	Males.	Females.	Total.
Exhaustive mania,	1		1
Acute mania,	40	28	68
Sub-acute mania,	13	7	20
Periodic mania,	8	4	12
Paroxysmal mania,	2	3	5
Chronic mania,	3	6	9
Hysteromania,		3	3
Monomania,	2	1	3
Melancholia,	5	10	15
Dementia,	10	2	12
Acute dementia,	5		5
Moral insanity,	2	1	3
Drunkenness,	5	.1	6
Feigned insanity,	1		1
Fever,	1		1
	_	-	
Total,	98	66	164
		=	

# Form of Disease in 164 cases Discharged Recovered.

## TABLE

Showing the percentage of recoveries on the average population, and admissions of each year.

ON	AVERAGE	POPULAT	ION.	ON ADMISSIONS.			
YEAR.	Average	Recovered.	Percentage.	Admitted.	Recovered,	Percentage	
1843,	109	53	48.62	276	53	19.20	
1844,	236	132	55.93	275	132	48.80	
1845,	265	135	50.94	293	135	46.07	
1846,	283	133	46.99	237	133	39.46	
1847,	415	187	45.06	428	187	43.69	
1848,	474	174	36.70	405	174	42.96	
1849,	454	203	44.71	362	203	56.07	
1850,	433	171	39.49	367	171	46.59	
1851,	440	112	25.45	366	112	30.60	
1852,	441	156	35.37	390	156	40.00	
1853,	423	169	39.95	424	169	39.85	
1854,	444	164	37.16	390	164	42.05	

Of the deaths during the year, there were, from phthisis pulmonalis, fifteen; general paralysis, four; apoplexy, two; epilepsy, four; erysipelas, four; hemorrhoids, two; organic diseases of the liver, one; pneumonia duplex, one; typhoid fever with internal hemorrhage, one; chorea, one; old age and protracted mental disease, four; suicide, four; exhaustion, as a termination of insanity of long standing, five; exhaustion, as a termination of insanity of long standing, five; exhaustion, the result of acute maniacal disease and acute paroxysms of periodic mania, eleven. Of the latter, seven, when admitted, were nearly in collapse: one, a lady, had been brought a journey of two hundred miles—about thirty of this by stage and lived only a few hours; two others of the number died within twenty-four hours after admission.

During the past, as in former years, we have had many unhappy instances of injudicious haste in bringing patients to the Asylum. One lady was admitted five days after her confinement; another before the burial of the child whose death was the immediate exciting cause of her disease, and many who were far too ill to travel. We would, therefore, urge greater deliberation before deciding upon the propriety of removing a feeble patient to the Asylum, especially where the distance is great; and then let it be done only in accordance with medical advice, remembering that a few weeks' delay can have no very prejudicial effect upon the termination of the case.

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Showing the per centage of deaths on the whole number treated, average population, and discharges, for twelve years :

YEAR.	Deaths.	Whole number treated.	Percentage.	Average popula- tion.	Percentage.	Number dis- charged.	Per- centage.
1843,	7	267	2.53	109	6.42	80	8.75
1844,	16	471	3.39	236	6.78	211	7.58
1845,	21	553	3.79	265	7.92	208	7.75
1846,	22	622	3.53	283	7.77	248	8.87
1847,	48	802	5.98	415	11.56	330	14.54
1848,	. 86	877	9.80	474	18.14	382	22.51
1849,	69	857	8.05	454	15.19	408	16.91
1850,	51	816	6.25	433	11.77	387	13.17
1851,	48	795	6.03	440	10.91	360	13.33
1852.,	39	825	4.72	441	8.84	400	9.75
1853,	39	849	4.59	423	9.22	403	9.67
1854.,	65	836	7.75	444	14.63	386	16.83

29

Number of patients admitted from each county, during the year ending Nomember 30th, 1854; also the number remaining at its close, arranged in their respective classes.

		н	ow sen	т.			RF	MAINI	(G.	
COUNTIES.	Pauper.	Indigent.	Criminal.	Private.	Total.	Pauper.	Indigent.	Criminal.	Private.	Total.
Albany,	4	12		8	24	14	11	1	3	29
Allegany,	1	1			25		1			1
Broome,	3	1		1		2	3		1	6
Cattaraugus,	1	24	•••	1	4		3		1	4
Cayuga,	1		1	3	9	2	5	2	3	12
Chautauqua.	5	1	• •	2	8	4	2	1	1	8
Chemung,		3			3		4			4
Chenango,		5	•••	5	10	2	2		3	74
Clinton,	•••	1	1		2	1	1	2		
Columbia,	2	1	•••	4	7	2	2	•••	4	8
Cortland,		1			1	•••			• • •	
Delaware,	•••	$2 \\ 3$		1	3		2		1	3
Dutchess,	3	3		4	10	3	4		1	8 5
Erie,	••			3	3		1	•••	4	
Essex,	••	3			$\frac{3}{1}$	2	3	•••		5
Franklin,	***			1 4		••		••	1	
Fulton,			••	4	74	•	$\frac{2}{1}$	••	1	3
Genesee,	••	··· 6		1	47	•••	1 5	••	2	5
Green,	••	4	• • •	5	9	··· 1	<i>b</i> 1	•••	•••	3
Herkimer,	10	1		2	13	8	1	•••	$\frac{1}{3}$	
Jefferson,			•••	2	10 2			•••	1	12 1
Kings,	• 3	··· 4		3	10	2	5	•••	2	9
Lewis, Livingston, .	1	1		4	6	ĩ	1	··· 1	4	7
Madison,	4	1		4	9	3	2	2	5	10
Monroe,	9	3		6	18	13	3	··· 1	5	22
Montgomery		1		2	3	10	4	See al	2	6
New York,									2	5
Niagara,	1	1		5	7	2	2		3	7
Oneida,	31	1		11	43	42	ī	1	11	55
Onondaga	9	9		3	21	8	10		4	22

as a set all should be		ноч	V BENT			0	REMAINING.			
COUNTIES.	Pauper.	Indigent.	Criminal.	Private.	Total.	Pauper.	Indigent.	Criminal.	Private.	Total.
Ontario, Orange, Orleans, Oswego, Queens, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schoharie, St. Lawrence, Steuben, Steuben, Steuben, Suffolk, Suffolk, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Warren, Washington, Wayne, Wayne, Yates, Auburn prison, . Clinton prison, . Sing Sing pris'n, Other States,		$\begin{array}{c} 3 \\ \cdot \\ 1 \\ 3 \\ \cdot \\ 10 \\ \cdot \\ \cdot \\ 3 \\ 2 \\ 2 \\ 3 \\ 1 \\ 2 \\ 2 \\ 4 \\ 2 \\ 4 \\ 1 \\ 2 \\ 2 \\ 2 \\ 1 \\ 2 \\ 3 \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \end{array}$	··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	$ \begin{array}{c} 3 \\ 1 \\ 4 \\ 5 \\ 2 \\ 1 \\ 2 \\ \vdots \\ 3 \\ 1 \\ 4 \\ 4 \\ 1 \\ \vdots \\ 2 \\ 2 \\ 1 \\ \vdots \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{r} 8 \\ 5 \\ 5 \\ 9 \\ 6 \\ 1 \\ 1 \\ 2 \\ 5 \\ 4 \\ 7 \\ 5 \\ 5 \\ 2 \\ 5 \\ 4 \\ 7 \\ 6 \\ 2 \\ 5 \\ 4 \\ 2 \\ 2 \\ 4 \\ 1 \\ 1 \\ 5 \\ 6 \end{array}$	$ \begin{array}{c} 2\\2\\.\\.\\4\\.\\.\\2\\2\\1\\.\\.\\2\\1\\.\\.\\2\\1\\.\\.\\2\\1\\.\\.\\.\\.$	$\begin{array}{c} 3 \\ 1 \\ \cdot 5 \\ 5 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 5 \\ 2 \\ \cdot 1 \\ 3 \\ 3 \\ 2 \\ 2 \\ 2 \\ 2 \\ 1 \\ 3 \\ 2 \\ 5 \\ 4 \\ \cdot \\ \cdot \\ \cdot \end{array}$	       	$\begin{array}{c} 7 \\ 2 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2$	$12 \\ 5 \\ 4 \\ 10 \\ 9 \\ 2 \\ 21 \\ 1 \\ 1 \\ 6 \\ 6 \\ 6 \\ 4 \\ 4 \\ 6 \\ 6 \\ 4 \\ 4 \\ 5 \\ 7 \\ 2 \\ 4 \\ 6 \\ 6 \\ 6 \\ 6 \\ 1 \\ 13 \\ 3 \\ 3 \\ 1 \\ 3 \\ 1 \\ 1 \\ 3 \\ 1 \\ 1$
Total,	112	133	12	133	390	142	154	39	115	450

Number of patients admitted, &c.-(CONTINUED.)

The construction of an apparatus for warming one half of the Asylum by steam, with provision for ventilation by mechanical means, according to plans particularly described in the last annual report of my predecessor, was, at the date of that report, (Nov'r 30, 1853,) approaching completion, in a portion of the rear wing. On the 16th December, the boilers for generating steam and their necessary connections with the apparatus, were in readiness for operation, and on the 19th we commenced warming one-half the rear wing, beneath which the pipe chambers were completed. It was found, upon trial, that the means of controling the temperature of the air, and its distribution into the several stories, were not as satisfactory as had been anticipated. The defects in question were soon ascertained to result from the disposition of the steam pipes, and the peculiar mode of admitting steam, simultaneously into subdivided portions of these separate series of pipes, appropriated to warming three stories. It was, at once, apparent, that the upper stories were much warmer than the lower, and that the latter could only be sufficiently warmed, by overheating the former; indicating that the quantity of radiating surface had not been properly apportioned, while the mode of connection, before mentioned, and the separation of each series of pipes by iron shelves and doors, afforded inadequate means of adjustment and control.

Before proceeding with the general work, these chambers were altered in their construction, in such a manner as to supply steam to each series of pipes, independently, and afford means of adjustment to meet the varying requirements of the different stories.

After satisfactory experimental trial, the evils complained of, with others not of sufficient importance to be here enumerated, were so far obviated by these changes, that three other chambers, partly constructed, which had been delayed in order to await the result of the alterations, were similarly arranged. The remainder of the work was still further simplified by the omission of the iron shelving and doors, and by opening all the exit air flues at the top of the chambers, and controling the distribution of air to the various stories, by placing a slide or valve over each flue, adjusting the size

of each opening to the quantity of air required.. These latter chambers were not completed in time to ascertain fully, last winter, their manner of working. However, early in the present season they were put in operation, and with such satisfactory results, that we, in the latter part of October, removed the shelving in all the chambers and provided for the exit of the air from a common level as heretofore described and with similar success.

Having disposed of that branch of the work pertaining more strictly to warming, we commenced the remaining and not less important part of the undertaking, that of providing for ventilation, by mechanical means.

By direction of your board, Mr. Joseph Nason, of New-York, was requested to prepare designs for a centrifugal fan or blower, of sufficient capacity to discharge 50,000 cubic feet of air per minute into the halls and rooms of the front and rear female wings, a quantity which would give about 200 cubic feet per minute to each occupant. After the submission of these plans and their adoption by your board, the work was commenced, and the fan was set in motion by the steam engine early in June. As we deem the result since obtained both interesting and important, we append Mr. Nason's description of the machine, which is supposed to be much larger than any blower heretofore constructed for a similar purpose.\*

During a series of trials made in the month of July, to ascertain approximately the quantity of air discharged, it was found that when the fan was turning at its ordinary velocity of seventy revolutions per minute, not less than 70,000 cubic feet of air was discharged, or about 1,000 feet for each revolution, giving 280 feet to each occupant per minute. To attain

[Senate, No. 14.]

<sup>\* &</sup>quot;The rotary or operating part of the fan consists of a shaft with twelve radial arms at the extremities of which are fastened wind boards two and a half feet wide and seven feet long, in the direction of the axis. The extremities of the boards are seven feet from the centre, and consquently describe a circle of fourteen feet diameter. Motion is imparted by a belt passing over a pulley four feet in diameter on the end of the shaft. The arms and boards revolve within a wooden casing, the circumference of which instead of being concentric with the shaft, describes a curve of increasing diameter, and forms outside the boards a channel of constantly enlarging capacity, towards the point of delivery. The height of the casing from the floor is twenty feet. The cross-sectional area is equal at the point of delivery, to 40 square feet."

this result, the force expended was equal to eight and a half horse power. This quantity of air, we are aware, is much above the highest estimate made by scientific men. It must be remembered, however, that the sources contributing to render the atmosphere impure, are more numerous and active in a Lunatic Asylum than in a congregation of ordinary persons, or even in a general hospital, and that a more frequent change of atmosphere is absolutely necessary.

This is especially true in reference to wards containing patients of filthy habits, and in those appropriated to the treatment of cases during the acute state of mania, when the execretions are generally very offensive. Since the cold weather commenced we have supplied 30,000 cubic feet of air per minute, or about 140 feet to each patient and attendant, and find no difficulty in keeping this entire side of the house uniformly at a temperature of 70 degrees Fahrenheit, with the thermometer  $4^{\circ}$  below zero.

From such observations as we have been able to make up to this time, we are of the opinion that independent of the state of the external atmosphere, we shall be able to obtain in this part of the building in the coldest weather an abundant supply of warmth, and at all times the freest ventilation, and that the expense incurred in this undertaking will be amply repaid by the full realization of all the advantages anticipated from steam warming and efficient mechanical ventilation.

In connection with this subject we would call attention to the state of the male wing. The furnaces which in past reports have been represented as in a dangerous condition, were found in the early part of last winter, to be entirely burned out, and their immediate abandonment absolutely necessary. Stoves were placed in all the wards, which, though very unsafe, were the only means of warming within our power. By great watchfulness, no fire occurred, though the patients during the cold weather were by no means comfortable.

Pursuant to the direction of your board, in July last, coils of steam pipe were placed in each hall of that wing, to enable us to pass the present winter. This temporary measure, though

safer, and therefore preferable, is no more efficient than stoves, and we trust will not be continued through another year. Already many patients have suffered from cold, especially in the third story, and when the weather will not allow the opening of the windows, the wards become very offensive, as we have no other means of ventilation. The influence of this impure state of atmosphere is apparent on both patients 'and attendants.

The new wash and laundry rooms are entirely satisfactory. The washing is now accomplished with great saving, both in labor and material.

Extensive repairs and improvements have been made in the structural arrangements of the house, all of which however, were imperatively demanded. The work of reconstructing bath rooms, lavatories and water closets has been continued. Those reconstructed last winter are easily kept in order and thoroughly ventilated, and we believe will not soon need renewal. The cement floors, in the rooms in the male department, have been in constant use ten months. They do not absorb water, and are now so hard that it is difficult to deface them even with a sharp instrument. We should advise that all the floors of the service rooms for the males be thus constructed.

Last spring and summer many of the domestics engaged in the kitchens were seized with typhoid fever. We attributed this to the decayed state of the floors and timbers of the basement, and the decomposing impurities beneath. The floors throughout were taken up and in great part replaced by brick and stone. In the kitchens wood was used because more comfortable to the feet; but great care was taken to secure a circulation of air between the joists and earth and prevent decay. No fever has since occurred.

The arrangements for cooking by steam are now completed, and are not only more efficient but more economical, as regards fuel and labor, than the former mode.

The substitution of iron tanks, in the basements, (containing steam coils, for heating water for bathing and washing,) for the copper boilers with furnaces underneath, is a very great improvement. These furnaces were unsafe, as fire several times occurred in connection with them. The advantages of this change are, the removal of five fires from the basements and as many hot water tanks from the attic, and that no attention is now required to keep the water warm. In connection with this work, hot and cold water was introduced into six of the rear dining rooms.

Many minor improvements and alterations have been made, but not of sufficient individual importance to be embodied in an annual report. In all this work temporary measures have been avoided, and the future and permanent welfare of the institution, and the physical comfort of the patients kept in view. These necessary changes were considered advisable at this time, not only as a matter of economy in structure, but more especially to obviate a future disturbance of our household.

It would be difficult to convey to you an adequate expression of the increased anxiety, and bodily and mental exertion required to maintain order and discipline, and the quiet requisite to the restoration of patients, in the midst of the confusion and exposure to dangers consequent upon such an extensive work as that in which we have been engaged.

We have cultivated, as far as possible, the importance of occupation as a remedial agent, and inculcated constant industry on the part of attendants, both in and out of doors, that they might at all times set an example of usefulness, and themselves be preserved from the evil influence of a semi-sedentary life. In the treatment of a majority of persons, especially the laboring classes, moderate though regular exercise in some useful employment is of the highest importance. To the gloomy and despondent, the fact of rendering themselves useful supplies often the inspiriting thought upon which their recovery turns. Walks and amusements are but the auxiliaries to occupation.

The matron reports that the female patients and attendants, in addition to the mending in the house, have made the following articles:

Shirts,	322	Towels,	615
Sheets,	698	Curtains,	173
Socks, pairs,	189	Caps,	167
Cravats,	289	Dresses,	575
Pillow cases,	526	Sacks,	69
Hose, pairs,	80	Aprons,	108
Chemises,	525	Skirts,	165
Night dresses,	244	Mattrass ticks,	185
Wrappers,	543	Pillow ticks	104
Drawers, pairs,	501	Pocket handkerchiefs,	411
Table cloths,	41		
Total,		6,	,530

Within doors, the shops afford employment to many of the men, both in winter and in summer. In the carpenters' shops a number of bureaus, wardrobes, bedsteads, windowblinds, book-cases, wash-stands, &c., have been made, and the repairs and breakage of furniture, doors, &c., attended to. A few are engaged in the printing office and tailor's shop. Our great resources of occupation, however, are the farm, garden and lawn. For successive days through the summer we have had from 120 to 150 male patients engaged on the grounds, with both pleasure and profit to themselves. During the summer one-half the front lawn was graded and laid out according to the plans furnished by Mr. A. J. Downing several years ago. The farm and garden have been more productive than in any previous year.

#### The Steward reports:

Hay, 12 tons,	at \$15,			\$180	00
				170	00
				10	00
			, at 3s,	67	50
			3s,	15	00
				6	00
Pumpkins, 2	loads, at	\$1,		2	00
			,	6	00
			at 4s,	590	50
Green peas,	417	do	4s,	208	50
String beans,	191	do	4s,	95	50
Green beets,	340	do	18,	42	50

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Peppers, 5 bush	els, at 14s,	8	75
	10	37	00
	lo 2s,	3	00
	lo 4s,	247	50
· · · · · · · · · · · · · · · · · · ·	lo 4s,	260	00
Beets, 489 d	lo 2s,	122	25
Carrots, 2,150 d	lo 2s,	537	50
Parsnips, 250 d	lo 2s,	62	50
Rutabagas, 158 d	lo 2s,	39	50
	lo 3s,	91	13
	lo 9s,	266	63
Seed peas, 16 d	lo 16s,	32	00
Seed beans, 11 d	lo 8s,	11	00
Cucumbers, pickled, 34 h	bls., 22s,	93	50
	s, at 14s,	21	00
Kentucky corn, 17 do		12	75
Early turnips, 80 do		40	00
	es, 1s6d,	45	56
Parsley, 197 do		36	19
Pepper-grass, 96 bunche		2	88
Cauliflower, 100 heads,		8	00
Cabbage, 6,537 do	5c,	326	85
Celery, 2,391 do	4c,	95	64
Asparagus, 2,472 bunche		148	32
Lettuce, 8,689 heads,	3c,	263	67
Rhubarb, 5,968 bunches,		477	44
Summer squash, 1,262 do	zens, 8c,	100	96
Winter squashes, 386,	8c,	30	88
Early cucumbers, 173 do	zens, 1s,	21	63
Water melons, 491,	1s,	61	38
Nutmeg melons, 1,637,	6c,	98	22
Currants, 1,680 qu	arts, 5c,	84	00
Gooseberries, 210	do 6c,	12	60
Raspberries, 298	do 6c,	17	88
Strawberries, 730	do 1s,	91	
Sage, 53 lbs.,	28,	13	25

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The steward also reports, at the commencement of the year, eighty hogs, worth \$436.00; amount paid for feed, \$247.91; received for pigs sold and pork slaughtered, \$822.92; balance of stock on hand, \$1,016.00. Increase of stock in value and profit on pork, &c., \$1,128.01.

Stock on farm, six horses, one pair of oxen, twenty-two cows, and one hundred and fourteen hogs.

The Opal is still edited and published by the patients, and its proceeds devoted to their comfort and amusement. The profits of the last year, with the avails of a Fair held by the ladies, amounted to four hundred dollars, which have been expended for books, improvements in the green house, and in amusements. The Opal now receives about three hundred periodicals and newspapers in exchange, which, to officers, as well as attendants and patients, are a source of pleasure and profit.

The Rev. Chauncey E. Goodrich continues to discharge the duties of chaplain. To the Rev. W. E. Knox, of Rome, Rev. Dr. Wiley, and Revs. Matteson, Dickson, Spencer, Neely and Lincoln, of Utica, who have supplied our pulpit at various times during the year, we express our grateful acknowledgements.

Entertainments have kindly been given to our household by the Amphions, Kunkel's band, Mons. Devani, Menter's troupe of minstrels, and the Campbells. The generosity which prompted these is fully appreciated.

We desire especially to acknowledge our indebtedness to Prof. O. J. Shaw, of Utica. His musical entertainments to the ladies of the first hall have contributed to the happiness and improvement of many.

The Institution has received public documents from Miss Dix, Hon. Hamilton Fish, Hon. Wm. H. Seward, Hon. O. B. Matteson, Hon. Caleb Lyon, and Dr. T. R. Beck. We also acknowledge the reception of the sixth volume of the Contributions to Useful Knowledge, from the Smithsonian Institute, and a number of books from Mrs. J. M. Bradford, of Geneva. To the physicians who have been associated with me in the medical care and responsibilities of the Institution, I desire to express my great obligations. During most of the year, the extensive improvements necessarily occupied much of my time, and imposed increased duties on them, which were not only cheerfully borne, but, in performing which, they frequently denied themselves the leisure and recreation requisite to the preservation of health.

To the steward and matron, who have faithfully discharged their duties, and to all assisting, either in the management or labors of the Institution, to whose fidelity much of its success must be attributed, I take pleasure in acknowledging my indebtedness.

Permit me, gentlemen, in conclusion, to thank you for the aid and counsel you have afforded me during the labors of the year.

With thankfulness to God for the blessings and success of the past, and committing the Institution with all its interests to His guidance for the future, we enter upon the coming year. JOHN P. GRAY.

November 30th, 1854.



