

Thirtieth annual report of the Trustees of the Northampton Lunatic Hospital, for the year ending September 30, 1885.

Contributors

Northampton Lunatic Hospital.
Taft, Henry W.
Earle, Pliny.

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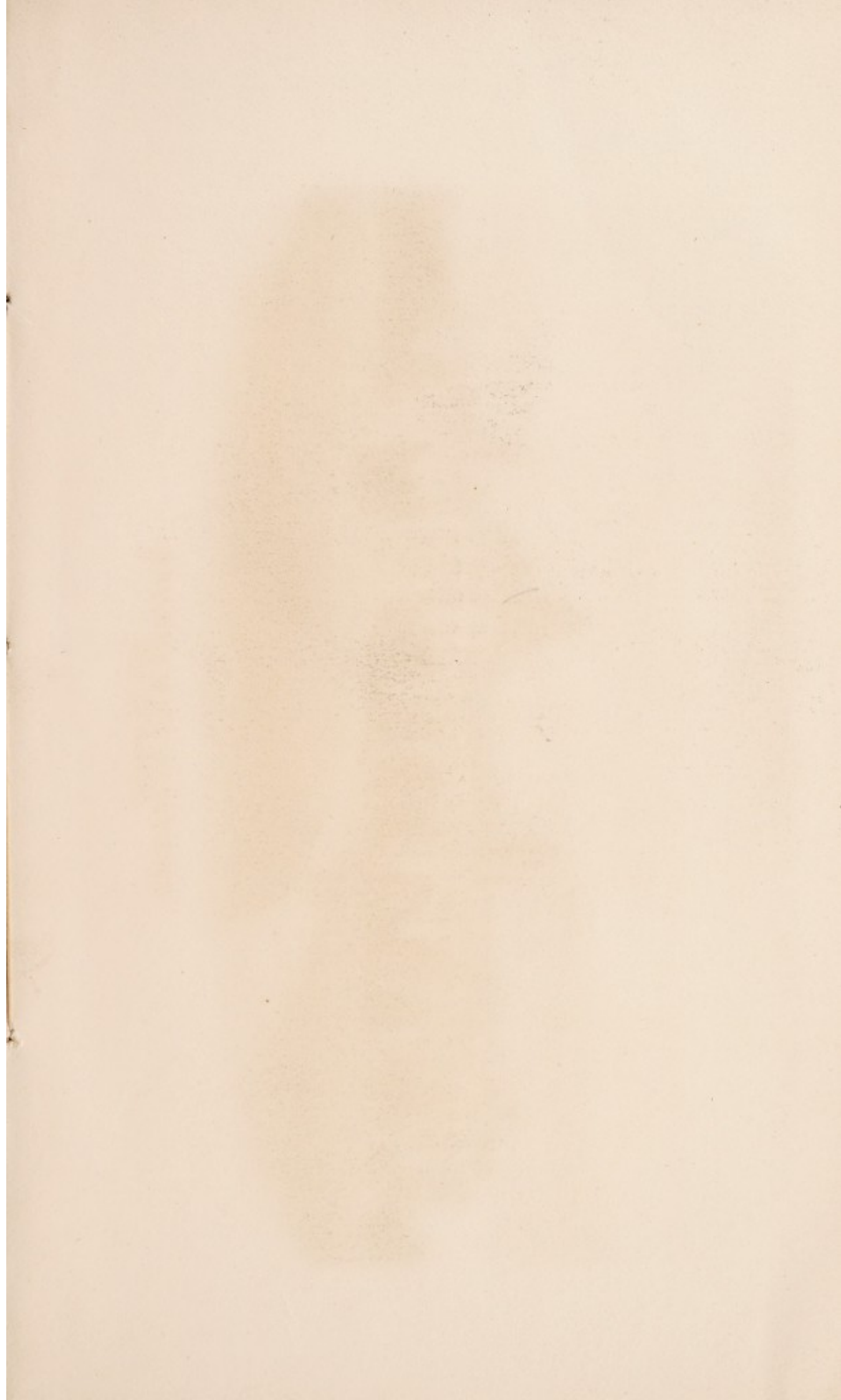
THIRTIETH ANNUAL REPORT
OF
THE TRUSTEES
OF THE
NORTHAMPTON LUNATIC HOSPITAL,
FOR THE
YEAR ENDING SEPTEMBER 30, 1885.

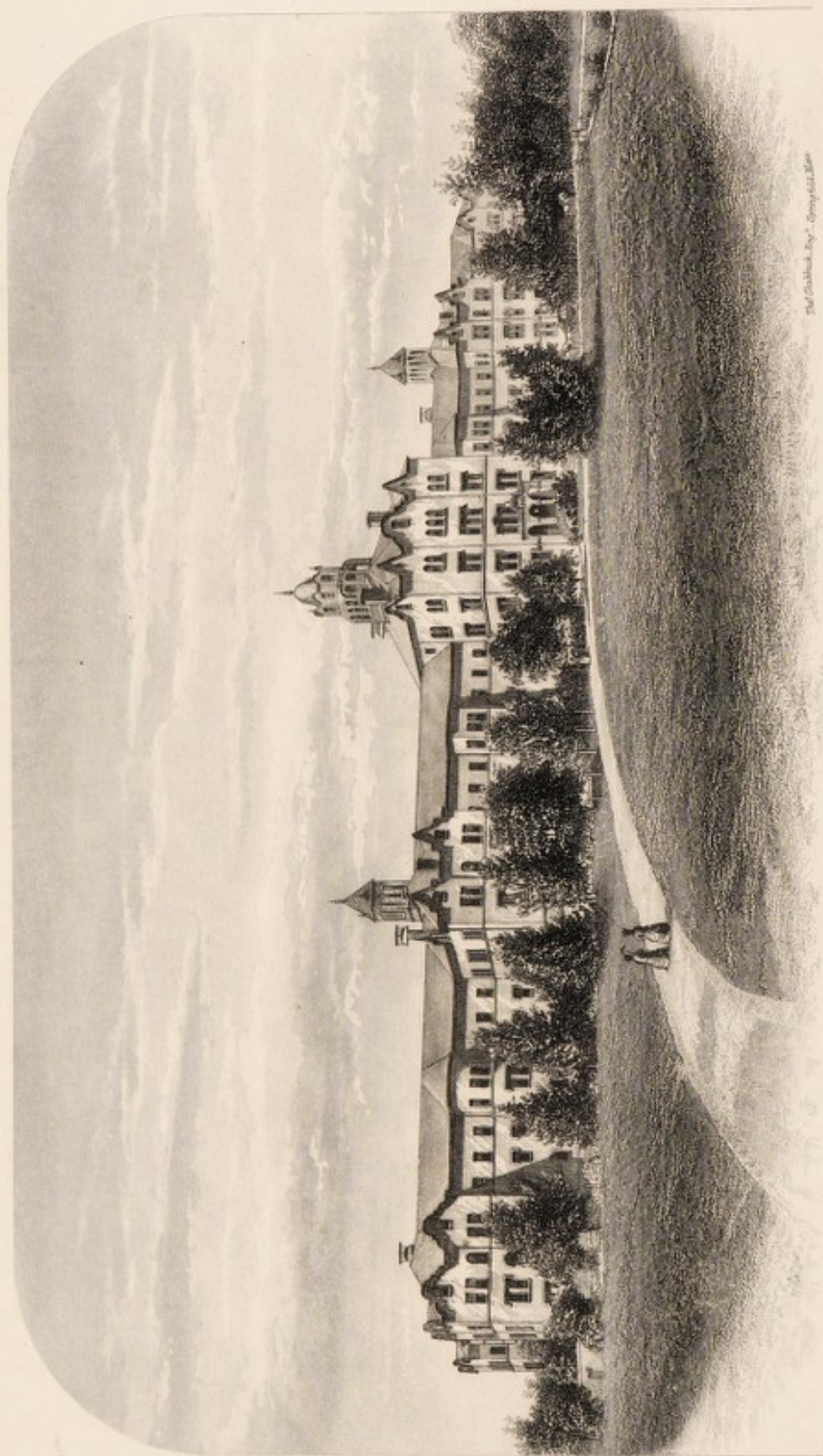
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The Old South Church, Northampton, Mass.

HOSPITAL FOR INSANE.
NORTHAMPTON, MASS.

With the compliments of

Pliny Earle, M. D.



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THIRTIETH ANNUAL REPORT

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THE TRUSTEES

OF THE

NORTHAMPTON LUNATIC HOSPITAL,

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YEAR ENDING SEPTEMBER 30, 1885.

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OFFICERS OF THE NORTHAMPTON LUNATIC HOSPITAL.

TRUSTEES.

HENRY W. TAFT, Esq.,	PITTSFIELD.
LYMAN D. JAMES, Esq.,	WILLIAMSBURG.
HON. CHRISTOPHER C. MERRITT,	SPRINGFIELD.
SILAS M. SMITH, Esq.,	NORTHAMPTON.
MRS. SARAH M. BUTLER,	NORTHAMPTON.
MRS. SARAH A. WOODWORTH,	CHICOPEE.
ADAMS C. DEANE, M.D.,	GREENFIELD.

RESIDENT OFFICERS.

PLINY EARLE, A.M., M.D.,	SUPERINTENDENT.*
EDWARD B. NIMS, M.D.,	ASSISTANT SUPERINTENDENT.
DANIEL PICKARD, M.D.,	FIRST ASSISTANT PHYSICIAN.
DAVID G. HALL, M.D.,	SECOND ASSISTANT PHYSICIAN.
WALTER B. WELTON,	CLERK.
JOHN MERCIER,	FARMER.
DANFORD MORSE,	ENGINEER.

TREASURER.

PLINY EARLE,	NORTHAMPTON.*
------------------------	---------------

Office at the Hospital.

SUBORDINATE OFFICERS.

ROBERT H. GALLIVAN,	MALE SUPERVISOR.
LUCY A. GILBERT,	FEMALE SUPERVISOR.
F. JOSEPHUS RICE,	STEWARD.
MARY E. WARD,	SEAMSTRESS.
IDA D. HYDE,	LAUNDRESS.
GEORGE B. WALKER,	BAKER.

* On the 1st of October, 1885, Dr. Earle retired from office and was succeeded, both as Superintendent and Treasurer, by Dr. Edward B. Nims, the former Assistant Superintendent.

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Commonwealth of Massachusetts.

TRUSTEES' REPORT.

*To His Excellency the Governor of the Commonwealth
and the Honorable Council.*

The fiscal year 1884-85 of the Northampton Lunatic Hospital having come to a close, the undersigned, in accordance with their duty as Trustees of that important charity, have the honor of hereby presenting to you the customary annual exposition of its operations.

Directing our attention primarily to the great objects for the attainment of which the institution was founded, namely, the custody, care and cure of the insane, the point most forcibly impressed upon us is the constant increase of the pressure upon the accommodations furnished by the hospital.

The building was designed for the accommodation of 250 patients. That number was not only attained, but exceeded, within twenty months from the time of its opening; and the daily average number for the second full official year, was 255. In the third year it rose to 314; in the ninth (1866-67), to 401; and in the nineteenth (1876-77), to 476. The opening of the new hospital at Worcester then gave us some relief, and the transfers to it reduced the daily average of resident patients to 442. Since that time there has been a constantly increasing annual average until it has now become within a small fraction of 476, or about the same as before the completion of the Worcester Hospital. Had there not been unusual exertions, during the past year, to procure the discharge of patients who might possibly be accommodated elsewhere, the number would have been still larger.

This brief historical sketch would appear to imply a very convenient quality of elasticity in the apartments for patients ; but, practically, twenty-inch brick walls do not readily yield to internal pressure, and when the enclosed room has received a proper and wholesome number of inmates, every additional occupant is an encroachment upon the convenience, the comfort, and the health of the whole.

We look forward to some relief when the hospital at Westborough is opened. It is possible, also, that, under the law enacted in June last, some of our patients may be domiciled as boarders in private dwellings. But it appears to us that the time has come at which the true measure of relief should be adopted, by the erection, upon the premises, of a building for recent cases, as suggested by Dr. Earle and approved by us, in the annual report for 1881-82. We respectfully recommend this proposition to your serious consideration.

At the beginning of the fiscal year just closed, the number of patients in the house was, of men, 229 ; of women, 234 ; a total of 463. In the course of the year 66 men and 70 women, a total of 136, were admitted, making the aggregate number who were under the treatment or care of the institution during a part or the whole of that period, 599, of whom 295 were men and 304 women.

Sixty men and 63 women, a total of 123, were discharged from the hospital, and 16 men and 11 women, a total of 27, were released by death.

The number remaining in the hospital at the close of the official year was, of men, 235, and of women, 241 ; a total of 476. The whole daily average number resident was 475.94 ; being, for men, 233.47, and for women, 242.47. This number shows a considerable increase of patients in the course of the year, as it exceeds, by 12.89, the daily average for the official year 1883-84.

On the 30th day of May there were 490 patients in the house, being the largest number on any day within the year. Its opposite, or the least number on any day, was 457, on the 24th of October.

Of the 123 patients who left the hospital, the mental condition at the time of their discharge, as compared with the

same at the time of their admission, was, *recovered*, in 29; *much improved*, in 9; *improved*, in 29; and *unimproved*, in 26; while 3 are reported as not insane. The proportion of recoveries is not absolutely or relatively large; but they who have attentively read the annual reports of this institution for the last ten years, will have learned not only not to expect great numerical results in respect to cures, but the reasons for not expecting them. The Superintendent has several times heretofore discussed the subject of curability. He returns to it again, in his report for the past year, to which we refer all persons who are interested either in that subject or any other of the many points connected with insanity and its treatment in public institutions.

It will be remembered that the warm season of 1884 was a very active and busy period at the hospital, in the construction of buildings which appeared necessary for the convenient and economical working of the institution and to meet the enlarged operations of its agricultural department. No new structures of the kind have been made this year; but considerable work has been done in finishing those of last year, and grading and otherwise improving the grounds around them. The large new cellar of the barn which was raised and extended last year, has proved to be a very convenient and valuable adjunct to the accommodations for the live stock of the farm. It has been improved, in the course of the summer, by a thick floor of concrete. The open court within the wings and the main edifice of the storehouse, and other spaces around that building, together with the pathway between it and the rear door of the hospital, have also been laid with similar concrete.

The cellar beneath the storehouse, which, as will be recollected, was intended for the storage of the vegetables to be consumed in the house, has proved successful beyond our expectations. As its upper space of three feet is above the surface of the outside grounds and is furnished with windows, there was some doubt that it would be sufficiently warm, in the coldest season, without artificial heat. Hence provision was made for the easy introduction of steam, should that become necessary. The winter was long and unusually cold, and consequently was a thorough test of the cellar's capabili-

ties in regard to temperature. It kept the mercury in the thermometer standing, almost as constantly as if it were immovable, at thirty-eight degrees of Fahrenheit; and at no time was it below thirty-six degrees. This is a range of temperature which, for the preservation of vegetables, could hardly be bettered. Artificial heat was not needed, and the unconsumed vegetables came out, in the spring, in far better condition than ever before at this hospital.

rr A pasture for fallow cows and young cattle, within a convenient distance, having long been needed, we purchased one in June. It is about one and a half miles from the hospital, adjoining the highway to Easthampton, and contains a little more than twenty-three acres. This raised the quantity of land belonging to the institution to about three hundred and sixty-five acres.

Considerable expense has been laid out, this year, in the reclamation of rocky and wet places upon the farm, by the removal of the stone, and the laying of under-drains and culverts.

The hospital has *earned*, in the course of the year, by the charges for the board of its inmates, \$86,549.99. The sums charged for the three different classes of patients were as follows:—

For State patients,	.	.	.	.	.	\$26,201 04
town patients,	.	.	.	.	.	44,193 97
private patients,	.	.	.	.	.	16,154 98
Total,	.	.	.	.	.	<u>\$86,549 99</u>

That portion of the earnings which accrued during the last quarter of the year has not, of course, been paid, but will appear in the *income* of the next ensuing year.

The report of the Treasurer having been received and audited, is hereto appended. The balances of the accounts show, that on the 30th of September, 1885, the end of the official year, there were:—

The reserve fund,	.	.	.	.	.	\$10,000 00
And cash assets available for future use,	.	.	.	.	.	27,755 09
Total,	.	.	.	.	.	<u>\$37,755 09</u>
And liabilities (bills payable),	.	.	.	.	.	5,935 82
Balance in favor of the hospital,	.	.	.	.	.	<u>\$31,819 27</u>

Beides these ready assets, the institution has on hand the representatives of cash, in a quantity of *purchased* provisions and supplies, of which the estimated value is \$14,762.87, together with the hitherto unconsumed products of the farm.

In pursuance of the Legislative Act of 1884, we appointed, in the early part of December of that year, Dr. Emily F. Wells to a position upon the medical staff of the hospital. She entered upon the duties of the office on the 1st of January of the current calendar year, and has hitherto performed them to our satisfaction. No other change was made, in the course of the official year, in the corps of executive officers. Of the subordinate officers, the seamstress, Miss Mary Ward, after long and faithful service, has left, and Gertrude C. Arnold has been appointed in her place.

At the present time of writing, the one important change in the administration of the hospital, since the date of our last report, is the retirement of Dr. Earle, whose resignation has finally been accepted by the Board; and, upon its acceptance, the following resolutions were unanimously adopted and entered upon the records:—

Resolved, That in accepting the resignation of Dr. Pliny Earle, Superintendent of this hospital, the Trustees have reluctantly yielded to the conviction that his advancing years and impaired health demand rest, and relief from the responsibilities and labors of his position.

Dr. Earle has been at the head of this institution twenty-one years, and, during nearly all that period, has also been its Treasurer. In its management he has combined the highest professional skill and acquirement with rare executive ability. By his thorough knowledge, his long experience, his patient attention to details; by his wisdom and firmness, his absolute fidelity to duty, and devotion to the interests of the hospital, he has rendered invaluable services to the institution, and to the community which it serves.

The Trustees are deeply sensible of the assistance which he has given them in the discharge of their duties, and follow him, in his retirement, with the assurance of their highest respect and esteem.

Resolved, That the Trustees indulge the hope that Dr. Earle will continue to make his home in this institution, that they may continue to profit by his counsels; and they will provide that his rooms shall always be open and ready for his use.

The vacancy thus created has been filled by the election of Dr. Edward B. Nims to the office of Superintendent. Dr. Nims has been connected with the hospital nearly seventeen years, and from their knowledge of his character and qualifications, the Trustees are confident that, under his superintendence, the efficient administration of the affairs of the hospital will be maintained.

Dr. Earle withdrew and Dr. Nims succeeded him in office, both as Superintendent and Treasurer, on the 1st of October, current, the beginning of the new official year.

HENRY W TAFT,
LYMAN D. JAMES,
CHRISTOPHER C. MERRITT,
SILAS M. SMITH,
SARAH M. BUTLER,
SARAH A. WOODWORTH,
ADAMS C. DEANE,

Trustees.

NORTHAMPTON, Oct. 8, 1885.

LIST OF PERSONS

REGULARLY EMPLOYED AT THE NORTHAMPTON LUNATIC HOSPITAL,
SEPT. 30, 1885.*

Superintendent and physician,	per year, \$2, 500 00
Assistant superintendent and physician,	" 1,500 00
First assistant physician,	" 900 00
Second assistant physician,	" 700 00
Third assistant physician,	" 600 00
Treasurer,	" 300 00
Treasurer, for clerk-hire and paid to clerk,	" 200 00
Clerk,	" 1,200 00
Farmer,	" 700 00
Engineer,	" 900 00
Assistant clerk,	per month, 20 00
Supervisor (male),	" 40 00
Supervisor (female),	" 30 00
Assistant supervisor (female),	" 20 00
Seamstress,	" 20 00
Assistant seamstress,	" 14 00
Laundress,	" 18 00
Assistant laundress,	" 18 00
Assistant laundress,	" 14 00
Baker,	" 40 00
Steward,	" 58 33
Assistant steward,	" 35 00
Attendants (male) (7),	" 30 00
Attendant (male) (1),	" 28 00
Attendants (male) (2),	" 25 00
Attendant (male) (1),	" 23 00
Attendants (male) (2),	" 21 00
Attendant (female) (1),	" 20 00
Attendants (female) (11),	" 18 00
Attendant (female) (1),	" 16 00
Attendant (female) (1),	" 15 00

* On the 1st of October, 1885, the office of assistant superintendent was abolished, and the salary of the first assistant physician was placed at \$1,200.

14 NORTHAMPTON LUNATIC HOSPITAL. [Oct.

Attendants (female) (2),	per month,	\$14 00
Night-watch (female),	"	18 00
Housework, centre (female) (2),	"	15 00
Cook (female),	"	16 00
Assistant cook (male),	"	15 00
Assistant cooks (female) (2),	"	15 00
Assistant cook (female) (1),	"	14 00
Farmers' dining-room (female),	"	15 00
Housework, rear building (female),	"	9 00
Watchman,	"	30 00
Carpenter,	per day,	2 25
Carpenter,	"	2 00
Painter,	per month,	50 00
Assistant engineer,	"	32 00
Night engineer, and gardener in summer,	"	30 00
Coachman,	"	28 00
Farm hands (5),	"	28 00
Farm hand (1),	"	25 00
Farm hand (1),	"	23 00

In the warm season we generally hire some farm hands by the day. This year we have four, at \$1.50 per day, without board. They work mostly on improvements of the farm.

INVENTORY OF STOCK AND SUPPLIES.

ON HAND SEPT. 30, 1885.

Live-stock on the farm,	\$6,027 00
Produce of the farm on hand,	8,411 08
Carriages and agricultural implements,	3,590 00
Machinery and mechanical fixtures,	8,820 00
Beds and bedding in inmates' department,	12,530 00
Other furniture in inmates' department,	4,850 00
Personal property of State in Superintendent's department,*	9,125 00
Ready-made clothing,	2,259 72
Dry goods,	3,077 59
Provisions and groceries,	3,092 56
Drugs and medicines,	625 00
Fuel,	5,408 00
Library,	1,000 00
Paints and oils,	300 00
Total,	\$69,115 00

* This term is here applied to the whole of the central edifice or block, and includes all the offices, the kitchen, the bakery, the laundry, the sewing-room and other apartments.

TREASURER'S REPORT.

To the Trustees of the Northampton Lunatic Hospital.

I hereby present my report, as Treasurer of the hospital, for the fiscal year ending with the 30th of September, 1885. It contains, as usual, an appraisal of the property of the institution, an account of the receipts and the disbursements of money during the year, and the financial condition at its close.

ASSETS.

Three hundred and sixty-four acres of land,	\$44,000 00
Hospital building,	250,000 00
Farm house, \$2,000; brick house, \$2,000, .	4,000 00
Three dwellings (H. Day lot),	1,000 00
Storehouse and shops,	16,000 00
Two barns,	5,500 00
Horse stable,	2,000 00
Scullery and wood-house,	700 00
Lumber-house,	1,200 00
Pump-house,	1,000 00
Cart shed,	500 00
Coal-house,	400 00
Piggery,	200 00
Fire-proof for oils and paints,	500 00
Two ice-houses,	600 00
	<hr/> \$327,600 00

PERSONAL ESTATE.

Stock and supplies on hand, as per inventory appended to the Trustees' report,	\$69,115 95
Reserve fund,	10,000 00

RECEIPTS.

Cash on hand Sept. 30, 1884,	\$1,765 59
Received from the State treasurer,	26,028 29
from towns,	46,737 72
from individuals,	15,819 43
from sales,	2,346 75
from temporary loan,	1,500 00
from interest,	591 31
	<hr/> \$94,789 09

PAYMENTS.

1st.	Salaries and labor,	\$28,725 63
2d.	Provisions and supplies, viz.:—	
	Meats of all kinds,	\$6,056 39
	Fish of all kinds,	1,238 67
	Fruit and vegetables,	1,446 92
	Flour,	3,707 00
	Grain and meal for table,	670 58
	Grain and meal for stock,	2,172 02
	Tea, coffee and chocolate,	643 09
	Sugar and molasses,	1,999 22
	Butter and cheese,	4,716 23
	Salt and other groceries,	2,830 99
	All other provisions,	116 28
		<hr/> 25,597 39
3d.	Clothing,	4,489 03
4th.	Fuel and lights,	7,168 27
5th.	Medicines and medical supplies,	1,701 77
6th.	Furniture, beds and bedding,	2,719 15
7th.	Transportation and travelling expenses,	353 93
8th.	Ordinary construction and repairs,	1,667 93
9th.	Extraordinary construction and repairs,	8,766 11
10th.	Real estate,	700 92
11th.	Miscellaneous expenses, including—	
	1. Farm stock,	\$785 00
	2. Farm supplies,	3,349 49
	3. Water,	750 00
	4. Minor expenses,	696 10
	5. Contingencies,	1,228 82
	6. Temporary loan,	1,500 00
		<hr/> 8,309 41
	Total expenditures,	<hr/> \$90,199 54

LIABILITIES.

Salaries and wages due Oct. 1, 1885,	\$3,931 65
Miscellaneous bills due,	2,004 17
	<hr/> \$5,935 82
Due the institution for board, Oct. 1, 1885,—	
from State,	\$6,842 03
towns,	11,944 10
individuals,	4,279 47
interest,	100 00
Due from Treasurer, Sept. 30, 1885,	4,589 55
	<hr/> \$27,755 15

SUMMARY.

Total receipts,	\$94,789 09
Total payments,	90,199 54
Cash on hand Sept. 30, 1885,	<u>\$4,589 55</u>
Total liabilities,	\$5,935 82
Total debts due the institution,	27,755 15
Total expenditures, including new buildings,	90,199 54

Dividing this sum by 475.94, the average number of patients,
 we have the average expenditure per patient, . . . \$189.518
 And the average weekly expenditure per patient, . . . 3.644

Deducting from the total expenditures,	\$90,199 54
The extraordinary expenses,	10,967 03
	<u> </u>

We have the current expenses, \$79,232 51

Dividing \$79,232.51 by 475.94, the average number of
 patients, we have the average expenditure per patient, . \$166.475
 Making the average weekly expenditure per patient, . . 3 201

Adding to the current cash expenditure,	\$79,232 51
The decrease of personal assets,	1 53
	<u> </u>

We have the apparent *necessary* cost for the year, . \$79,234 04

Dividing \$79,234.04 by 475.94, the average number of pa-
 tients, we have, as the annual cost of each patient, . \$166.479
 Making the average weekly cost of each patient, . . . 3.201

When making large disbursements for the construction of buildings, the Treasurer advanced, for fifteen days and without interest, the sum of fifteen hundred dollars on the hospital's account. This is entered as a temporary loan.

PLINY EARLE, *Treasurer*.

NORTHAMPTON, Oct. 8, 1885.

We have examined, as auditors, the accounts of the Treasurer, and found a satisfactory voucher for every entry.

ADAMS C. DEANE.
 LYMAN D. JAMES.

NORTHAMPTON, Oct. 8, 1885.

SUPERINTENDENT'S REPORT.

To the Trustees of the Northampton Lunatic Hospital.

Seasons demand their specific labors, and days come to us laden with their incumbent duties. Another official year of this institution having elapsed, it devolves upon me once more to make the annual record, and to present for your information a summary of the most important events and circumstances which constitute its history.

The usual schedule of the numerical records which show the movement of the population of the hospital, and the results of treatment of its inmates is presented in the following table:—

1. General Statistics, 1884-85.

	Males.	Females.	Totals.
Patients in hospital Oct. 1, 1884,	229	234	463
Admitted within the year,	66	70	136
Whole number of <i>cases</i> within the year,	295	304	599
Discharged within the year,	60	63	123
Viz.: as recovered,	17	12	29
much improved,	4	5	9
improved,	12	17	29
unimproved,	10	16	26
not insane,	1	2	3
Deaths,	16	11	27
Patients remaining Sept. 30, 1885,	235	241	476
Viz : supported as State patients,	83	74	157*
town patients,	119	140	259
private patients,	33	27	60
Number of different <i>persons</i> within the year,	289	299	588
Persons admitted,	63	67	130
recovered,	17	12	29
Daily average number of patients,	233.47	242.47	475.94

* On the 1st of October, 1885, two men and one woman were transferred from State to town charge. Hence the new year will begin with

State patients, $81 + 73 = 154$.

Town patients, $121 + 141 = 262$.

At the beginning of the year there were 463 patients (persons) in the house, 229 of whom were men and 234 women. The number of *patients* admitted within the year was, of men, 66, and of women, 70; making a total of 136. Hence the whole number of *patients* in the house, in the course of the year, was 599, of whom 295 were men and 304 women.

Among the admissions were 3 men and 3 women, a total of 6, who were admitted twice each. The 6 persons, therefore, counted as twelve *patients*. By subtracting their last admissions the whole number of *persons* admitted is obtained. This was, of men, 63, and of women, 67; making a total of 130. But among these were 5 persons — 3 men and 2 women — who were in the house at the beginning of the year, but who had been subsequently discharged and readmitted, within the year. By subtracting these, we find there were 60 men and 65 women, a total of 125, who were not in the house at the beginning of the year. Adding these to those who *were* here at the beginning of the year, we obtain the number of *persons* who were patients at any time in the course of the year. That number is 588, of whom 289 were men, and 299 women.

Of the 6 persons — 3 men and 3 women — who were admitted twice each, only one — a man — was discharged recovered on the first of those admissions. Of the 5 persons — 3 men and 2 women — who were here at the opening of the year, but were afterwards discharged and readmitted, no one was discharged recovered.

Of the 130 persons admitted, not less than 34, of whom 12 are men and 22 women, have been inmates of the hospital more than once each. Eight men and 14 women have been admitted twice each; 2 men and 4 women, three times each; 1 man and 1 woman, four times; 2 women, five times; 1 man, twelve times; and 1 woman, sixteen times.

Of the 22 persons who have been admitted twice each, 1 man and 4 women were discharged recovered on their first admissions; 2 women were discharged much improved; 5 men and 5 women, improved; and 2 men and 3 women, unimproved.

Of the 6 who have been admitted three times each, 1 woman had been discharged recovered on both of her former

admissions; 1 man as much improved both times; 1 woman as improved both times; 2 women as improved once each and unimproved once each; and one man as unimproved both times.

Of the 2 who have been admitted four times each, both were discharged recovered, on each of their three former admissions.

Of the 2 women who have been admitted five times each, one was discharged recovered twice and improved twice; and the other as recovered once, much improved once, and improved twice.

The man who has been admitted twelve times, had been discharged recovered four times, much improved once, and improved six times; and the woman who has been admitted sixteen times, had been discharged recovered eleven times, much improved once, and improved three times. They were brother and sister. The latter was admitted twice within the year.

The whole number (136) of admissions was precisely the same as in the next foregoing year; but the number of *persons* admitted was not so large by one as in that year.

The largest number of patients in the house on any day within the year, was 490, on the 30th of May; and the smallest number on any day was 457, on the 24th of October.

The daily average number of patients resident in the hospital exceeded that of the next preceding year by but a small fraction less than 13.

STATUS OF PATIENTS.

Basing the discrimination upon the sources of support, the patients of this hospital are, for business purposes, divided into three classes,—State patients, town patients and private patients.

Of the 136 patients admitted in the course of the year, the expense of support of 43 was charged, when they entered the hospital, to the Commonwealth; that of 74 to cities and towns, and that of 19 to relatives, friends or guardians of the patients. The relative proportion of State patients was about 25 per cent. larger, and that of town and of private patients was smaller, than in the next preceding

year. Subsequently to admission, four changes were made in regard to responsibility for support. One ward of the State became a town charge; and three town patients were transferred, one to the beneficence of the State and two others to that of their relatives.

Including the 27 patients removed by death, the whole number discharged within the year was 123. Forty of them were beneficiaries of the Commonwealth, 65 were the wards of cities and towns, and 18 were supported by private funds.

Of the 476 patients who remained in the hospital at the close of the year, the cost of support of 157 is charged to the State and that of 259 to cities and towns, while the expenses of 60 are paid from either their own property or the private funds of other people.

The weekly average number of patients in each of the three classes, who were in the house in the course of the last two official years, is indicated in the subjoined table, — the averages being calculated upon the totals of the numbers present on the evenings of all the Saturdays in the year: —

	1883-84.			1884-85.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
State patients, . .	83.37	71.73	155.10	82.29	72.15	154.44
Town patients, . .	113.88	137.35	251.23	118.48	143.10	261.58
Private patients, .	29.87	26.19	56.06	32.62	27.20	59.82

This table is introduced, as it has been in several preceding years, chiefly for the purpose of demonstrating the gradual but constant diminution, in both the number and the relative proportion, of the wards of the State; and the equally constant augmentation of those of the wards of cities and towns. It will be perceived that the changes still continue, although that of the State patients is less than in several former years. The increase of town patients for the year is ten.

The weekly average of all the patients in the house was 475.84, which is less, by the fraction *one-tenth*, than the daily average.

RECOVERIES.

Judging in accordance with our standard of mental health, and our opinions in regard to the extent to which, in individuals, that standard is modified by temperament, idiosyncrasy, education and habits, 29 of the discharged patients, of whom 17 were men and 12 women, had regained their natural mental condition to an extent which warranted a record of recovery. Fourteen of the men and 11 of the women had never before been under treatment at any institution, and 2 were here on their first admission, but had been patients at the Worcester Hospital, from which one of them had been discharged recovered.

Two men and one woman were here on their second admission. The woman and one of the men had been discharged as recovered on their first admission, and the other man as much improved.

One man was on his third admission, having previously been twice discharged as recovered. There was an interval of twenty years between his first discharge and his second admission. In the course of this long period he had pursued his usual avocation and supported a family, although he had suffered some slight attacks of the disorder not sufficiently severe to require his removal to a hospital.

No patient was discharged as recovered twice within the year, and consequently the number of *persons* recovered the same as that of *patients* recovered. The new statistical tables have already had an important effect, in one respect, upon the reported recoveries at the institutions in Massachusetts. Since their adoption, there have been very few instances in which the same person has been discharged recovered more than once in the course of the year covered by any one report, and so long as they continue in use there is little probability that any person will be credited with seven recoveries in a year—a distinction which had been accorded to at least one person in the antecedent history of one of the hospitals.

One of the men discharged recovered in the early part of March, was readmitted after an absence of a little more than five months, and is still here.

Among the recoveries there was one case of special interest, in consequence of its prolonged duration. The patient, a woman, was originally admitted at the Worcester Hospital, in March, 1871, and was transferred to Northampton in May, 1872. For several years, at frequently recurring periods, she was the most dangerous patient in the female department. It was not safe, at these times, for an attendant to enter her room alone. At length the frequency of the periods and the intensity and violence of the excitement began to diminish. Slowly but constantly, from year to year, there was an evident improvement, until at length she appeared to be well, and after a hospital life of more than fourteen years returned to her friends.

Of the patients discharged recovered, 8 were supported at the hospital by the State, 17 by cities and towns, and 4 by private funds.

DEATHS.

Notwithstanding the very low rate of mortality in 1883-84, the increase in the number of deaths within the year just closed is comparatively small. Indeed, there has now been a period of three consecutive years during which the death-rate has been materially below the average.

The whole number of deaths was 27. Sixteen of them were of men and 11 of women. Although phthisis — or consumption — does not, as usual, stand most prominent among the diseases which terminated fatally, yet the number of its victims is not exceeded by that of any other. There were six each of it and of pneumonia. The tendency to the disease last mentioned was observable throughout the winter, and the number of cases of it in the house probably exceeded the aggregate number of the five next preceding years. As a consequence of its prevalence, the mortality from diseases of the lungs was much greater than from those of the brain and nerves, whereas the reverse is ordinarily true. Of the deaths not already mentioned, four are recorded as the result of organic disease of the brain, two of apoplexy, two of senile debility, and one each of five other diseases.

To these must be added one from suicide, and one which occurred, accidentally, upon a railroad.

One of the men, when walking out in company with an attendant and other patients, escaped and went to his home, about ten miles distant, where he remained over night. On the following morning he started to return to the hospital, on foot and alone, as he had once before returned under similar circumstances. Instead of taking the highway for carriages, he took the railroad, which has a double track. On his way, perceiving a train approaching him in front, on the track upon which he was walking, he stepped aside, upon the other track, and was almost immediately struck and killed by a train going in the opposite direction, which he evidently had not perceived.

The suicide was by a woman whose propensity in that direction was not known or suspected. She effected her object by strangulation, procured by semi-suspension in her room, in the course of her second night in the hospital.

Persons familiar with our previous reports will remember that the question of the comparative mortality of the sexes in the hospital has not infrequently been discussed. It is worthy of continued observation and mention. In no less than fifteen of the last eighteen years, both the actual and the proportionate number of deaths of men exceeded those of women. In the course of the last year, 290 different men were under treatment, and 16 of them died. This is equal to 5.51 per cent. The number of different women was 299, of whom 11, or 3.68 per cent., died. The proportionate mortality of women was only about two-thirds of that of men. In other words the rate was such that, with an equal number of patients of the two sexes, then, during a period in which 100 men would die, there would be but 67 (66.78) deaths of women. Shattered constitutions and profound disease of the brain are much the most frequent in the naturally stronger sex.

Of the 27 patients discharged by death, 14 were wards of the Commonwealth, and 11 of towns and cities, while only 2 were supported by individuals or by private funds.

A succinct numerical history of the mortality among the patients of the hospital, from the time of its opening, is included in the subjoined table:—

Deaths and their Ratios from Sept. 30, 1858, to Oct. 1, 1885.

OFFICIAL YEAR.	Whole No. of Patients.	Daily Aver- age No. of Patients.	DEATHS.			Per cent. on Whole No. of Patients treated.	Per cent. on Daily Aver- age No. of Patients.
			Men.	Women.	Totals.		
1858-59, .	313	229.55	7	12	19	6.07	8.27
1859-60, .	398	255.96	9	18	27	6.78	10.54
1860-61, .	434	314.26	15	15	30	6.91	9.54
1861-62, .	442	313.80	9	10	19	4.29	6.05
1862-63, .	470	355.28	19	7	26	5.53	7.31
1863-64, .	475	357.63	17	30	47	9.89	13.14
1864-65, .	469	342.40	17	24	41	8.76	11.97
1865-66, .	488	376.35	18	13	31	6.35	8.23
1866-67, .	543	401.03	23	24	47	8.65	11.71
1867-68, .	565	413.41	25	18	43	7.61	10.40
1868-69, .	590	405.10	13	12	25	4.23	6.17
1869-70, .	604	408.83	22	11	33	5.46	8.07
1870-71, .	616	421.90	16	12	28	4.54	6.64
1871-72, .	619	428.72	19	18	37	5.97	8.63
1872-73, .	614	437.23	13	8	21	3.42	4.80
1873-74, .	626	469.54	14	11	25	3.99	5.32
1874-75, .	629	475.35	23	18	41	6.52	8.62
1875-76, .	629	474.21	18	19	37	5.88	7.80
1876-77, .	603	476.16	21	21	42	6.96	8.82
1877-78, .	551	442.43	14	9	23	4.17	5.19
1878-79, .	535	436.73	14	9	23	4.29	5.27
1879-80, .	559	450.51	17	12	29	5.19	6.44
1880-81, .	569	451.79	16	10	26	4.57	5.75
1881-82, .	587	461.66	24	14	38	6.47	8.23
1882-83, .	606	466.76	17	13	30	4.95	6.42
1883-84, .	605	463.05	12	13	25	4.13	5.39
1884-85, .	599	475.94	16	11	27	4.51	5.67

By an inspection of the table it will be seen that the proportion of deaths, calculated upon the daily average number of patients, was smaller than in eighteen of the foregoing years, and larger than in only eight. Calculated upon the whole number of patients treated, it was smaller than in twenty-one years, and larger than in only five.

It requires but a mere general and transient glance at the table to reveal the fact of a pretty largely diminished mortality in the course of the hospital's progress. For the purpose of giving a more definite idea of this diminution, the percentages of deaths in different periods are given below, as they have been in some former reports.

As compared with the whole number of patients treated, the mean or average death-rate was : —

For the whole period of twenty-seven years,	5.70 per cent.
For the first thirteen years,	6.49 “
For the last thirteen years,	5.02 “
While for the year just closed it was only	4.51 “

As compared with the daily average number of patients in the house, it was :—

For the full period of twenty-seven years,	7.63 per cent
For the first thirteen years,	9.05 “
For the last thirteen years,	6.46 “
While for the year just closed it was only	5.67 “

The last method of calculating the ratio of deaths is the most accurate. The results, as given by it, demonstrate that, having a fixed and constantly equal number of patients in the house, then, during a period in which, with a death-rate of the first thirteen years, 905 patients would die, only 646 patients would die if the rate were that of the last thirteen years; or, as otherwise illustrated, where 100 patients died in the first period, only 71 died in the last.

WORSHIP AND ENTERTAINMENT.

Religious exercises were more or less regularly performed at some of the institutions for the insane anteriorly to the year 1830; but the plan of frequent gatherings of the patients on the evenings of secular days, for instruction, entertainment and amusement, is almost wholly the outgrowth of the last forty-five years. Beginning in an occasional exercise, and as a method of relieving the tedium of the monotony of the wards between the hours of supper and bedtime, it was gradually more and more developed, and more and more widely adopted, until it has now become an important, if not an almost necessary part of the system of treatment of the insane. In the annual reports of this institution during the last twenty years, the subject has been discussed, under its different aspects and relations, to such an extent as to render much enlargement upon it at the present time unnecessary.

In the report one year ago, the opinion was given that, at public institutions where the assemblies of patients for the purposes here indicated are so frequent as they are here, the most nearly constant method of entertainment should be

reading—the matter read not to be confined to any special subject or to any form or department of literature, but to take the widest range and comprise judicious selections from the whole. This view of the subject has met with approbation in at least one instance. A well-educated lady of literary tastes, who was formerly a patient in this hospital, gives her endorsement, as follows, in a letter recently written to one of her correspondents here : —

“I am especially interested in Dr. Earle’s report, and his opinion of the exercises in chapel. I have reason to remember the readings gratefully, for not only were they of benefit at the time, but from them I gained ideas that have been of great value ever since. I should think there could be no question but that the readings should be by far the most frequent form of instruction and entertainment.”

The subjoined schedule contains an account of the exercises in the course of the last official year, together with the number of days or evenings devoted to each : —

EXERCISES IN THE CHAPEL.

1. ON THE SABBATH,—

Divine worship, 52 days.

2. ON SECULAR EVENINGS,—

(a) *Reading and Recitations, opened and closed with music :*

The Bible,	17	“
The Bible and selections of prose,	3	“
The Bible and selections of poetry,	31	“
The Bible and recitations,	2	“
Miscellaneous selections of prose,	118	“
Miscellaneous selections of poetry,	21	“
Miscellaneous selections of prose and poetry,	31	“
Poetry and recitation,	1	“
Recitations of poetry,	1	“

(b) *Lectures :—*

On Biblical subjects,	2	“
Method of teaching the blind,	1	“

(c) *Other Entertainments :—*

Pictures shown with the stereopticon,	7	“
Concert,	2	“

(d) *Social Assemblies :—*

Quadrille parties,	19	“
No assembly,	57	“

Total, 365 days.

This list shows that only upon 57 days in the course of the year was there no assemblage of the patients for the purposes indicated. It consequently follows that the number of days upon which they were thus convened was 308. This number is not so large as it has usually been in bygone time, for the simple reason that, during the last two years, the exercises have been omitted on the evenings of the reception days for visitors — two each week — in July, August and September. During the last twenty official years, the average number of days upon which the patients were thus brought together is 331. The largest annual number of times was 349, in the official year 1868-69, and the smallest 290, in 1883-84.

It is confidently believed that — with perhaps the exception of a very few institutions at which there is a constant gathering for morning and evening prayers, and where there are few or no miscellaneous exercises — no other hospital has so large an average as that just mentioned. There are some at which the assemblies are regular and constant during nine months of the year, but are wholly discontinued during the other three months. They may have as large an average for their *season*, but necessarily they cannot have for the year. The average attendance at these gatherings, for the year just ended, is 283; the largest, 310.

While thus chronicling, for the last time, the annual history of this department of the operations of the hospital, it appears incumbent upon me once more to recur to the importance of these exercises, as a factor of practical value in the administration of the affairs of an institution for the insane. Their influence for good may be summarily stated as follows: —

First. They obviate that listless, lifeless, oppressive monotony and tedium of the wards which formerly prevailed in such establishments, and which will inevitably prevail without them.

Second. They operate as a disciplinary power over both the body and the mind. The gathering together in the wards, the orderly progress to and from the place of meeting, and the quiet sitting during the exercises (always excepting the dances — and even these are practical lessons in *order*),

cannot fail more or less to operate as not only temporary but permanent suppressors of the eccentricities of action, the vagaries of conduct, and the tendencies to violence. Thus self-control comes in the place of waywardness, and order and quietude in the place of disorder and noise.

Third. They are a mental stimulus. As they teach physical order, so teach they order of thought. They offer to all a mental pabulum which is received and appropriated to an extent varying in degree according to the mental impairment; but, even to the most apathetic, operating, to some extent, as a conservator of what little mental power still remains, and to many, of better preserved or larger intellect, as an invigorator and a strengthener. Nothing is more certain than, other things being equal, the inmates of a hospital at which these exercises are a component part of treatment, will always appear less demented, less stupid, more intelligent and quicker and brighter in intellect, than in one where they are not.

Fourth. As they conduce to the general quietude of the house so do they largely contribute to the satisfaction and the contentment of its inmates, as well as to their regard for the officers who officiate at them. On the part of many of the patients there is a full appreciation of the efforts which are made for their entertainment and amusement.

Fifth. They give to the Superintendent an opportunity, which has not infrequently been taken advantage of at this hospital, for instruction and counsel to both attendants and patients, in regard to their relations to each other, and for any other remarks which may conduce to the improvement of the institution, or the harmony and general welfare of its inmates.

FARM.

In a commonwealth the public charitable institutions are the property of the organized citizens of that commonwealth. They are instituted *by* the people, and *for* the people. Hence I have always regarded it as most proper that an annual report from this hospital should be intended, in the character of its contents, for the people, and not for any special profession, denomination, or class of persons which may exist among them. I have consequently en-

deavored to portray the institution as it is, and have not attempted to make it, specially, a *medical* report. The hospital is in a section of the State which is largely agricultural, and draws a considerable proportion of its patients from the people engaged in that industry. Therefore, as well as from the fact that it is a very important department, both economic and hygienic, of the establishment, a due prominence has always been given to the farm.

Perhaps no season since the opening of the hospital has been more favorable for all the varieties of vegetable product which it has been thought judicious to cultivate here, than that which is now drawing towards its close; and although somewhat more favorable for some of them than for others, as, in the nature of things, every season must necessarily be, yet, in regard to no one was the crop a failure, and a fair harvest was gathered even from those which were least successful.

With the exception of a slight drought, which diminished the growth of rowen on some of the upland which was earliest mowed, the most inveterate scowler at the weather could find no food for grumbling at the past summer because of influences unfavorable to the production of hay. The first growth of grass produced $197\frac{2}{5}$ tons, a quantity which exceeds, by 22 tons, that of the first growth of any former year, and is larger, by 23 tons, than the whole crop harvested in 1884.

The after-growth yielded a fraction over 54 tons, — a quantity never before equalled. Thus the whole product was $251\frac{1}{2}$ tons.

Inasmuch as all the milk consumed by the inmates of the hospital is produced on the premises, the quantity of hay grown upon the farm becomes an economic consideration of primary importance. The decision to purchase no more milk, but to make the establishment self-supporting in this respect, was made in the summer of 1864. It may not be uninteresting to learn the development of the farm, in this direction, in the course of the last twenty-one years. The following schedule shows the quantity of hay annually gathered upon the premises throughout that period, unimportant fractions of tons being omitted:—

1864, estimated, . . . 40 tons.	1875, weighed, . . . 100 tons.
1865, " . . . 62 "	1876, " . . . 111 "
1866, " . . . 42 "	1877, " . . . 154 "
1867, weighed, . . . 82 "	1878, " . . . 179 "
1868, " . . . 86 "	1879, " . . . 144 "
1869, " . . . 91 "	1880, " . . . 154 "
1870, " . . . 74 "	1881, " . . . 213 "
1871, " . . . 75 "	1882, " . . . 170 "
1872, " . . . 91 "	1883, " . . . 197 "
1873, " . . . 84 "	1884, " . . . 174 "
1874, " . . . 120 "	1885, " . . . 251 "

This gradual increase is a consequence, in part, of additional land acquired by purchase, and, in part, of the constantly improving fertility of that which was owned from the beginning. The growth upon the original farm has increased at least threefold since 1864.

It will be perceived that the home product of hay, in the earlier years of the period, was entirely inadequate to the support of a large dairy. This deficiency was supplied by the purchase of standing grass, and harvesting it. In 1867 the farm yielded 82 tons, and the purchased grass 140 tons; and in 1869, the harvest on the premises was 91 tons, and that from outside land 130 tons. We have paid, when the market value of hay was \$25 a ton, as much as \$1,700, in one year, for standing grass; and for eight or ten years the average cost was probably \$1,400. This year we paid \$100.10; and henceforth the farm will probably furnish essentially the whole of the hay required for home consumption.

Of milk, the whole product in the course of the official year was 26,156 gallons, which is a daily average of $71\frac{2}{3}$ gallons. But only one-third of this quantity is placed in the list of products; that being the estimated proportion derived directly from the farm, by pasturage, while the remaining two-thirds is supposed to be derived from purchased meal, and from the other home growths, as hay, roots, etc., for the value of which the farm is already credited in the list. The reported product of milk in 1865 was 13,836 gallons; and in 1866, 15,327 gallons. The proportionate increase since that time

pretty largely exceeds the similar increase in the number of inmates of the hospital.

Last year, the reported product of the orchards was 1,153 barrels of apples suitable for domestic use, and 100 barrels of cider. As the report was made before the close of the harvest, this quantity was, in part, an estimate. But the estimate was too low. Of apples, the actual quantity was not less than 1,250 barrels; and of cider, 118 barrels. As this is not the "bearing year" for the orchards, the expected product was necessarily small. The harvest, however, is now estimated at 357 barrels, which is sufficient to obviate the necessity of a large purchase.

In a former report it was stated, and the reasons therefor given, that the raising of swine has always been one of the leading agricultural interests of the institution. The "Hospital breed" has always been a popular one in the neighboring towns, and consequently there has been an outside market for pigs; while, until within recent years, there has been a sufficient market in the house for all the pork, ham, and lard which could be produced. The subjoined list shows the growth of this industry during the last twenty-one years.

Pork Raised upon the Farm.

1865, 6,265 pounds.	1876, 12,467 pounds.
1866, 5,443 "	1877, 13,605 "
1867, 7,416 "	1878, 14,451 "
1868, 7,791 "	1879, 13,569 "
1869, 8,469 "	1880, 14,729 "
1870, 7,447 "	1881, 15,610 "
1871, 7,863 "	1882, 14,414 "
1872, 11,366 "	1883, 15,612 "
1873, 10,511 "	1884, 10,192* "
1874, 12,024 "	1885, 17,544 "
1875, 12,693 "	

* Quantity diminished by disease.

The increase, as will be seen, has been nearly threefold.

Forty-eight hogs were fattened and slaughtered in the course of the past year, the aggregate weight of the dressed carcasses of which was, as mentioned above, 17,544 pounds.

The heaviest weighed 598 pounds; the lightest, 170 pounds. The average weight of the heaviest ten was 511 pounds; of the heaviest five, 538 pounds; and of the whole, 365 pounds. There is less attempt than formerly to produce large animals. Both economy and excellence in quality of meat are promoted by slaughtering at a medium weight. The quantity of pork and of lard was so much in excess of the needs of the hospital, that 1,381 pounds of the former and 454 pounds of the latter were sold.

The poultry has been under the immediate, and almost the sole, charge of one of the patients, who has manifested both zeal and knowledge in its management, and arrived at results never before attained or attempted at the hospital; and, had it not been for the depredations of wild birds and beasts, his success would have been materially greater. The product has been about three hundred dozen of eggs, nearly five hundred pounds of chickens for the table, and an increase of over a hundred in the flock.

Mr. Mercier, the farmer, has furnished the following schedule of products, in some items of which the stated quantities are partly estimated, because the harvest is not yet complete.

LIST OF PRODUCTS IN 1885.

Hay (first growth of home farm), 155 $\frac{1}{8}$ tons, at \$16, . . .	\$2,494 00
Hay (south lot), 23 $\frac{1}{8}$ tons, at \$16,	370 00
Hay (Clarke orchard), 18 $\frac{3}{8}$ tons, at \$16,	294 00
Hay (after-growth of whole farm), 54 $\frac{1}{8}$ tons, at \$16, . . .	866 00
Corn fodder, dry, 25 tons,	175 00
Oat fodder, 8 tons,	80 00
Corn, 440 bushels,	220 00
Oats, 200 bushels,	100 00
Potatoes, 3,711 bushels,	1,855 50
Broom-seed, 45 bushels,	18 00
Broom-brush, 900 pounds,	72 00
Carrots, 216 bushels,	86 40
Sugar beets, 1,270 bushels,	381 00
Beets, 226 bushels,	113 00
Onions, 416 bushels,	270 40
Turnips, 600 bushels,	240 00
Parsnips, 65 bushels,	32 50
Beans (Lima), in shell, 127 bushels,	190 50
Beans (common), in shell, 89 bushels,	89 00

Beans (string), 20 bushels,	\$30 00
Beans (Lima), dry, 3 bushels,	7 50
Pease (green), in pod, 147 bushels,	235 50
Sweet corn (green), in ear, 369 bushels,	369 00
Tomatoes, 280 bushels,	280 00
Lettuce, 68½ bushels,	68 50
Cucumbers, 105 bushels,	105 00
Squashes (summer), 86 bushels,	86 00
Squashes (winter), 4 tons,	120 00
Melons, 10 tons,	100 00
Asparagus, 31¼ bushels,	93 75
Pie-plant, 51 bushels,	75 75
Beet greens, 32 bushels,	32 00
Spinach, 4 bushels,	4 00
Cabbages, 2,300 heads,	115 00
Currants, 14 bushels,	42 00
Apples, 357 barrels,	357 00
Pears, 81 bushels,	81 00
Quinces, 7 bushels,	17 50
Grapes, 200 pounds,	8 00
Veal (raised here), 813 pounds,	98 78
Pork, 17,544 pounds,	1,193 20
Pigs, sold, 179,	494 25
Pigs (roasting), 1,	2 00
Turkeys, 162 pounds,	39 93
Chickens, 487¼ pounds,	94 69
Heads and plucks, 7,	7 00
Eggs, 296 dozen,	76 75
Milk (grass-fed), 34,874 quarts,	1,743 70
Cider, 25 barrels,	62 00
Calfskins, 7,	8 75
Young calves, sold, 17,	37 00
Wood, 30 cords,	90 00
Fence posts, 50,	10 00
Corn husks, 1¼ tons,	15 00
	<hr/>
	\$14,147 85

Notwithstanding the lowness of prevailing prices, the valuation of the products exceeds that of 1884 by the not insignificant sum of \$1,603.67; and that of 1884 was larger, by nearly one thousand dollars, than that of any preceding year in the history of the hospital.

The stock of animals upon the farm at the termination of the official year was 9 horses, 8 working oxen, 2 fat oxen, 1 bull, 31 cows, 4 fat cows, 7 heifers, 3 calves, 164 swine, and about 300 domestic fowls.

The practice is still continued of purchasing, in October or November, one hundred or more sheep, and from fifteen to twenty three-years-old grass-fed cattle, and slaughtering them on the premises, as needed, in the course of the winter. In this way the mutton costs but little more than one-half the retail market price.

The new vegetable cellar has proved a valuable acquisition, not only to the domestic department of the institution, but to the agricultural department as well. The bins for the vegetables are raised above the concrete floor, and a space is left between them and the cellar wall. Their bottoms are narrow boards, with intervening spaces. There is, consequently, a free circulation of air not only around them, but upward, among the vegetables which they contain. Potatoes stored in them through the winter were little, if any, less solid and firm than when they were taken from the ground.

HOW THE HOSPITAL IS SUPPORTED.

The following financial exposition is the same that was published in the annual report for 1883-84, with the exception of changes necessary for its adaptation to present circumstances.

Although a State institution, this hospital has received no gratuitous assistance from the State since the spring of 1867. Since that time it has relied for its income solely upon the products of its farm, the board bills of its patients, and the small sum of ten dollars each for the funeral expenses of State patients who die in the hospital, and whose remains are not removed for burial. The receipts from the last mentioned source during the past year were only fifty dollars.

For the entire support of State patients, including clothing and all loss from breakage and other kinds of destruction, the hospital received \$3.50 each per week, from the treasury of the Commonwealth, from April 1, 1870, to April 1, 1879. For one year after the latter date, it received but \$3 each per week; and since April 1, 1880, it has received \$3.25 each per week. This is the compensation fixed by statute law. One hundred and fifty-seven, or more than

one-third of the inmates, now belong to this class. During the past year the weekly average of them was 32.45 per cent., or a trifle less than one-third of the whole.

For town patients it has received, and now receives, from the treasuries of the towns respectively in which these patients have legal settlements, the same sum per week (\$3.25 each) as from the State treasury for State patients; but the towns clothe their patients, and remunerate the hospital for damages done by them. Two hundred and fifty-nine, or more than one-half, of the inmates are now in this class. The weekly average of them for the year was very nearly 55 per cent. of the whole.

For private patients there is no uniform price. The average pay from all who were here Sept. 30, 1885, was \$5.083 each, per week. Clothing and damages are extra charges. The weekly average of these patients, during the past year, was a fraction over 12 per cent., or one-eighth of the whole.

The average weekly pay, per capita, charged by the hospital for all its patients—State, town and private—in the course of the year, is \$3.497, or three mills less than three dollars and a half. Such are the pecuniary resources of the institution. We turn to the results of

THE FINANCE OF THE LAST TWENTY YEARS.

In April, 1865, the hospital was freed from debt, and the financial statement at the close of that month showed a balance of \$302.04 in its favor. Between that time and the first of June, 1867, it received a direct bonus from the State of \$5,000 in two appropriations, for specific purposes,—one of \$2,000 and the other of \$3,000.

As an offset to the \$5,000 bonus, the hospital has purchased and paid for several lots of land, amounting to nearly one hundred and seventy-five acres, together with four dwelling-houses. The total cost of this real estate was \$30,883.92. The State, then, has, in this way alone, been overpaid for its bonus, in the sum of \$25,883.92.

The amount paid by the hospital for repairs and improve-

ments in the course of the twenty years, from Sept. 30, 1865, to Sept. 30, 1885, is \$233,702.44.

The surplus of cash assets now on hand, including the reserve fund, is \$31,819.27, or \$31,517.23 larger than it was on the 30th of April, 1865.

The purchased provisions and supplies, including fuel and stored clothing now on hand, are estimated to have cost \$14,762.87. The estimated value of similar supplies on the 30th of April, 1865, was \$2,500. The increase of assets under this head is, therefore, \$12,262.87.

The value of household furniture in the hospital is, at a low estimate, at least \$10,000 greater than it was on the 30th of April, 1865, at the same rate or standard of appraisal. To be certain, however, of no exaggeration, let it be called \$8,000. Collecting these several sums, the account of debit of the Commonwealth to the hospital appears to be as follows:—

Excess of cost of land over direct bonus,	\$25,883 92
Repairs and improvements,	233,702 44
Excess of present cash assets,	31,517 23
Increase of provisions and supplies,	12,262 87
Increase of furniture,	8,000 00
<hr/>	
Total,	\$311,366 46

The necessary current repairs of the buildings may be estimated at \$3,000 annually. Deducting this sum for each of the twenty years since Sept. 30, 1865, a total of \$60,000, there is a remainder of \$251,366.46. To this amount, then, has the hospital assisted itself to things, for most of which it is generally expected that such institutions will rely upon direct appropriations from the treasury of the Commonwealth.

In the preparation of this summary, we have taken into account only the actual disbursements of money by the hospital, in contributing to its own improvements. But aside from this, a large amount of work, in effecting those improvements, was performed by the teams of horses and cattle belonging to the institution, and by the regular corps of its employees. Agreeably to all correct business prin-

ciples, as well as to the custom at some similar institutions, the hospital should be credited with the amount of the value of this labor. But no credit has ever been given for it. Many thousands of dollars might, in this direction, be justly added to the sum above mentioned, as the product of the efforts of the hospital in the promotion of its own material progress.

In connection with the above exposition, it may be interesting to know to what extent the tax-payers of the State have contributed to the institution. From a list, furnished by the State treasurer, of all the appropriations made either for the construction, the repairs, or the improvements of the hospital, I find that, from the time of the passage of the act authorizing its erection, down to the present day, it has cost the people of the Commonwealth, only three hundred and seventy-five thousand five hundred and fifty dollars (\$375,550).

THE CURABILITY OF INSANITY.

A STATISTICAL STUDY.

Notwithstanding the manifold triumphs of medicine, of surgery, and of other sciences and arts, there are inexorable limits to their achievements and their power of achievement. Nature yields in a measurable extent to the conceptions, the devices, the ministrations, and the administrations of human skill, but, as if to mock them in the end, and to demonstrate the retention of her inherent supremacy, she at length establishes a position and defies their power. These are trite truths, so trite, indeed, that the mention of them is an apparent superfluity: and yet they answer my purpose as an introduction, and are not wholly inappropriate at the beginning of a paper in which their truthfulness receives another illustration.

Nowhere are these truths more conspicuous, than in the sphere of the enterprises to overcome the disabilities of what are termed the defective classes of mankind — defective from

imperfections either congenital or acquired. It is, indeed, perhaps true that, in the treatment of the blind, in the attempt to obtain a substitute for the eye and thus open an avenue of perception to the imprisoned brain, although nothing has been discovered which is, by very far, a full equivalent of the perfect natural organ, the success has equalled the expectation. But in reference to some of the other classes this is not true; and the hopes and confident anticipations awakened in the public mind, in the comparatively early periods of the modern endeavors at improvement, have been doomed to at least a partial disappointment.

Some forty years ago, when the efforts of Dr. Guggenbuhl, in Switzerland, to elevate the idiot from his congenital degradation had been imitated in other parts of Europe, the world of philanthropy and the world of thought were startled by the announcement of a certain degree of success; and this, in the minds of the people, was magnified to such an extent as to give the general impression, that idiocy is so far amenable to culture that the great mass of its subjects can be raised nearly to a level with the average of the race. But, after the experience of a sufficient number of years to furnish a reliable test, it is found that, although partial imbeciles are susceptible of a degree of elevation in a ratio inverse to the degree of mental defection, and although, with the inclusion of the idiot, the advantages acquired are more than sufficient to vindicate the enterprise, yet the congenital idiot is essentially the congenital idiot still.

The history of the instruction of deaf-mutes in vocal language is similar, in these respects, to that of the attempts to redeem the idiot from his infirmity. Surprising results were attained in some instances, and public opinion, taking its shape and tone from these, leaped to the conclusion that, although deafness might continue, permanent mutism was soon to become a thing of the past. Experience has not yet shown that a majority of deaf-mutes are susceptible of satisfactory instruction and achievement in this method of intercommunication.

A similar exaltation of belief and of expectation has occurred in the specialty of the treatment of insanity, and, unfortunately, a similar disappointment has awaited all who had become interested in the subject, whether in the profession or among the people at large.

It is proposed, in this paper, to show, by the collocation of statistics, the actual results of treatment at a large number of institutions, both foreign and domestic, bringing our knowledge of such general results to a later date than that contained in any former statistical essay.

RECOVERIES AT BRITISH ASYLUMS.

The reports of many, if not most, of the British asylums, contain a table, originally designed by Dr. Thurnam, in which the admissions, discharges, recoveries and deaths of patients are classified according to the duration of the insanity.

These classes are as follows : —

- 1st. First attack, and within three months, on admission.
- 2d. First attack, above three and within twelve months, on admission.
- 3d. Not first attack, and within twelve months, on admission.
- 4th. First attack or not, but of more than twelve months, on admission.
- 5th. Congenital and unknown.

This is a well-conceived and useful table for its intended purpose; and, if prepared with sufficient care and discrimination, cannot well fail to throw light upon the question of curability as affected by duration, or by the fact of first or subsequent attack.

Nearly two years ago I collated the statistics of this table in a series of the annual reports of twenty-three of the British asylums, so far as relates to all cases of less duration than twelve months at the time of admission. For more than fifty years, all such cases have, in the United States, been called *recent*, in contradistinction to those of remoter origin, which have been called *chronic*; and my object in

collecting the statistics was to ascertain the degree of curability to which those asylums had attained in the treatment of what we call recent cases.

Of each of twelve of the asylums these statistics, which are embodied in Table I., extend over a series of six consecutive years, the last of which was, in some instances, 1882, and in the others, 1883. At three of the asylums they extend over five years; at one, over four years; and at seven, over three years. At each asylum the years are consecutive; and at no one is the last of the series later than 1878, the majority being either 1880, 1881, or 1882.

TABLE I.—Cases of less than Twelve Months, at Twenty-Three British Asylums.

ASYLUMS.	Years Inclusive.	CASES OF FIRST ATTACK, WITH DURATION.										NOT FIRST ATTACK.		
		UNDER THREE MONTHS.			THREE TO TWELVE MONTHS.			TOTAL UNDER TWELVE MONTHS.			Per cent. of Recoveries.	NOT OVER TWELVE MONTHS.		
		Admissions.	Recovered.	Per cent. of Recoveries.	Admissions.	Recovered.	Per cent. of Recoveries.	Admissions.	Recovered.	Per cent. of Recoveries.		Admissions.	Recovered.	Per cent. of Recoveries.
Somerset and Bath,	1877-82	499	189	37.88	166	80	48.19	665	269	40.45		320	148	46.25
Devizes,	1877-82	289	120	41.52	109	20	18.35	398	140	35.18		198	80	40.40
Abergavenny,	1877-82	285	141	49.47	102	24	23.53	387	165	42.64		167	101	60.48
Carmarthen,	1877-82	108	57	52.78	50	16	32.00	158	73	46.20		79	37	46.84
Derby County,	1877-82	397	180	45.34	112	41	36.61	509	221	43.42		225	128	56.89
Hereford,	1878-83	121	66	54.55	62	23	37.10	183	89	48.63		108	56	51.85
South Yorkshire,	1877-82	1,251	565	45.16	214	55	25.70	1,465	620	42.32		693	335	48.34
Prestwich,	1877-82	1,203	671	55.78	243	63	25.93	1,446	734	50.76		541	319	58.96
Lancaster,	1877-82	654	393	60.09	344	90	26.16	998	483	48.40		444	309	69.59
Warwick County,	1878-83	228	124	54.39	116	31	26.72	344	155	45.06		111	63	56.76
Edinburgh Roy,	1878-83	755	381	50.46	298	98	32.89	1,053	479	45.49		673	381	56.61
Belfast,	1877-82	444	234	52.70	147	49	33.33	591	283	47.88		112	74	66.07
Retreat, York,	1876-80	40	20	50.00	21	9	42.86	61	29	47.54		36	13	36.11
Gartnavel,	1875-79	541	227	41.96	126	22	17.46	667	249	37.33		235	108	45.96
Cambridge and Ely,	1877-81	213	85	39.90	58	9	15.51	271	94	34.69		76	40	52.63
Barming Heath,	1877-80	553	259	46.84	183	54	29.50	736	313	42.53		302	195	64.57
City of London,	1880-82	62	27	43.55	28	10	35.71	90	37	41.11		44	28	63.64
Berrywood,	1878-80	181	71	39.23	58	28	48.28	239	99	41.42		102	39	38.23
Worcester,	1879-81	169	81	47.93	73	15	20.55	242	96	39.67		113	82	72.57
Nottingham,	1877-79	119	54	45.38	31	12	38.71	150	66	44.00		44	19	43.18
Beverly,	1876-78	87	44	50.57	23	2	8.69	110	46	41.82		42	20	47.62
Crichton,	1877-79	47	25	53.19	14	4	28.57	61	29	47.54		30	21	70.00
Southern Counties,	1877-79	70	37	52.86	35	9	25.71	105	46	43.81		73	44	60.27
Totals,		8,316	4,051	48.71	2,613	764	29.24	10,929	4,815	44.06		4,768	2,640	55.37
Mean or average per cent.,														

Aggregate of admissions, 15,697; of recoveries, 7,455. Per cent. of recoveries, 47.49.

The results of these statistics may be briefly stated.

1st class (first attack, less than 3 months' duration), the admissions were 8,316; recoveries, 4,051; per cent. of recoveries, 48.71.

2d class (first attack, 3 to 12 months' duration), admissions, 2,613; recoveries, 764; per cent. of recoveries, 29.24.

3d class (not first attack, less than 12 months' duration), admissions, 4,768; recoveries, 2,640; per cent. of recoveries, 55.37.

By uniting the first two classes, we have all cases of first attack and of less duration than one year. Of these, the admissions were 10,929; the recoveries, 4,815; and the proportion of recoveries, 44.06 per cent.

Of the third class the admissions were 4,768; the recoveries, 2,640; and the proportion of recoveries, 55.37 per cent. Here we have another illustration of the fact that recovery takes place in a less proportion of cases of first attack than in cases subsequent to the first—a fact which was demonstrated in an article on curability in the report for 1880 of this hospital.

By a union of the three classes, all of which contain, exclusively, cases of less than twelve months in duration, and are consequently here known as recent cases, we obtain the following results: Admissions, 15,697; recoveries, 7,455; proportion of recoveries, 47.49 per cent.

Among this series of twenty-three asylums is the Retreat at York, the statistics of recoveries at which, from 1796 to 1819, have been quoted, ever since they were published, as one of the authorities for the eminent curability of mental disorders. It may not be uninteresting to bring into juxtaposition those statistics of three-fourths of a century ago, and those of the same institution for the five years from 1876 to 1880 inclusive. This is done in the following table:—

TABLE II. — *Per cent. of Recoveries at the York Retreat of Cases of less Duration than Twelve Months.*

	Per cent. of 1st Class.	Per cent. of 2d Class.	Per cent. of 3d Class.	Per cent. of Total.
1796-1819,	85 10	55.55	61.76	68.25
1876-1880,	50 00	42.86	36.11	43.30
Decrease of per cent, . . .	35.10	12.69	25.65	24.95

The diminution of the proportion of recoveries on the admissions is, for the first class, 35.10 per cent. of the admissions; for the second class, 12.69 per cent.; for the third class, 25.65 per cent.; and for the whole, 24.95 per cent., or, in round numbers, one-fourth of the admissions.

The proportion of diminution from the actual recoveries of the first period, is, for the first class, 41.17 per cent., or a fraction more than two-fifths; for the second class, 22.84 per cent., or a fraction more than one-fifth; for the third class, 41.53 per cent., or a fraction over two-fifths; and for the whole, 36 25 per cent. In other words, for each hundred of recoveries of what we call recent cases, three-fourths of a century ago, there are but sixty-four (63.75) recoveries now.

Some months after the collection of the foregoing statistics, but before any use had been made of them, Dr. T. A. Chapman, of the Hereford Asylum, England, published a similar but much larger collection, in "The Journal of Mental Science" for July 1884. It contains the statistics of "46 English County and Borough Asylums, and the Edinburgh and Glasgow Royal Asylums, for (in most instances) 11 years, 1872 to 1882 inclusive." Here is a collocation of the remarkable number of 93,443 cases of insanity, all of them classified as in the foregoing table. The whole number of recoveries was 35,468, or 37.95 per cent. of the admissions. But as the recoveries of *recent* cases are now alone under consideration, we will turn our attention especially to them. The subjoined table (III.) shows the numbers, and the percentage, in each of the first three of Thurnam's classes.

TABLE III. — *Recoveries of Cases of less Duration than one Year.*

CLASSES.	Admissions.	Recoveries.	Per cent. of Recoveries.
<i>Class I.</i>			
1st attack; less than 3 months' duration, .	38,283	18,654	48.72
<i>Class II.</i>			
1st attack; 3 to 12 months' duration, . .	12,126	3,421	28.21
<i>Class III.</i>			
Not 1st attack; less than 12 months' duration,	19,574	10,494	53.61
Totals and mean per cent.,	69,983	32,569	46.52

Dr. Chapman's table includes, apparently, twenty-eight asylums that are not in mine, and mine has five that are not in his. Of these five, two are in Scotland and three in England, the Retreat at York being one.

In regarding these two collections of statistics, so much alike and yet so different, almost the first impression received from them is the striking similarity of results. These are, indeed, so nearly identical as to justify one's faith in the sometime possibility of a close approximation to accuracy in this branch of vital statistics. The difference in the proportion of recoveries, as indicated by the two, are, for the first class of cases, only one one-hundredth (.01) of one per cent. ; for the second class, one and three hundredths (1.03) per cent. ; for the third class, one and seventy-six hundredths (1.76) per cent. ; and for the total, ninety-seven hundredths (.97) of one per cent.

When Dr. Woodward, in 1833, took charge of the Worcester Hospital, he had before him, as exemplars, three well-known pioneers in the field of high percentages of recoveries. Dr. Burrows, in 1820, had reported 91.32 per cent. as the result of the treatment of 242 cases, of which 221 recovered. He also published the results, from 1797 to 1819, at the York Retreat, where, of 47 cases of less duration than three months, the recoveries were 40, or an equiv-

alent of 85.10 per cent.* In 1827 Dr. Todd, at the Hartford Retreat, reported that, of 23 recent cases admitted, 21 had recovered, a proportion of 91.3 per cent. In 1841, Dr. Woodward obtained his highest proportion of recoveries, 91.42 per cent., by the treatment of 70 cases, 64 of which recovered; and in 1842, Dr. Galt, at the Williamsburg (Virginia) Asylum, excelled all of his predecessors in the announcement that of 13 recent cases under his care 12 had recovered, a percentage of 92.3.

Here we have five different, well-known medical authorities, each confirmatory and corroborative of the others, and all of which have, for an average of half a century, been regarded as a kind of oracular proclaimers of the possible achievement of recovery in about 90 per cent. of recent cases. Yet, singularly enough, the whole of the five separate reputations were built, and the oracles established, upon the treatment of an aggregate of only 395 cases.

On the other hand we have before us, in Dr. Chapman's table, the results of treatment of a number of recent cases which lacks but seventeen to make it seventy thousand, and the recoveries are only 32,569, or 46.52 per cent. This ratio of curability is only eighty-six hundredths of one per cent. more than half as large as that which was claimed by Dr. Burrows, and only thirty-seven hundredths of one per cent. more than one-half as large as that of Dr. Galt. Even in the cases of first attack and of only three months' duration, of which there were 38,283, the recoveries were but 18,654, or 48.72 per cent. In the light thrown upon the subject by this unparalleled collection of recent cases, what becomes of the once exceedingly fashionable assertion that "from seventy-five to ninety per cent. can be cured"?

RECOVERIES AT THIRTY-NINE (15 + 24) AMERICAN INSTITUTIONS.

Inasmuch as neither Thurnam's table nor its equivalent in any other form is used at the American institutions, it is impossible to group or to analyze the results at the latter on

* The fact should not be overlooked that, if the word *recent* be used in its American signification, applying to all cases of less duration than one year, the proportion of recoveries at the Retreat was only 68.25 per cent., the admissions being 126, and the recoveries 86.

precisely the same basis in all respects. Nevertheless, upon looking over the American reports, I find that a large amount of matter may be brought together, illustrative of the proportion of the reported recoveries of recent cases.

In the statistics of a majority of our hospitals, although in reference to admissions the duration of the insanity is given, and hence a distinction between recent and chronic cases rendered possible, yet no such discrimination is made in regard to patients discharged. The subjoined table contains the results, in regard to recovery, for a series of from three to six years, of fifteen American hospitals, in the reports of which the recoveries of cases of less than twelve months' duration are numerically given. The time during which each hospital, respectively, furnished these statistical results is mentioned in the table.

TABLE IV.—*Whole Number of Recoveries, and Recoveries of Cases of less than Twelve Months' Duration, at Fifteen American Institutions.*

ASYLUMS.	Years.	ADMISSIONS.		DISCHARGED RECOVERIES.				
		Under 12 Months.	Whole Number.	Under 12 Months.	Per cent. of Recent Cases.	Whole Number.	Per cent. of Whole Number.	Per cent. of all Recoveries on Recent Admissions.
Elgin, . . .	6	488	1,017	197	40.37	246	24.19	50.41
Concord, . .	5	334	536	148	44.31	161	30.04	48.20
Worcester, .	5	593	1,254	191	32.21	254	20.26	42.83
Taunton, . .	5	824	1,619	300	36.41	369	22.79	44.78
Utica, . . .	5	1,518	2,184	661	43.54	716	32.78	47.17
Harrisburg, .	5	395	716	117	29.62	133	18.58	33.67
Dixmont, . .	5	646	1,117	238	36.84	288	25.78	44.58
Dayton, . . .	5	607	977	285	46.95	342	35.00	56.34
Ossawatimie, .	5	398	707	165	41.46	217	30.69	54.52
McLean, . . .	4	207	308	81	39.13	89	28.90	42.99
Northampton, .	4	224	511	75	33.48	104	20.35	46.43
Danvers, . . .	4	962	2,078	361	37.53	458	22.04	47.61
Columbia, S. C.	4	408	702	110	26.96	161	22.93	39.46
Boston, . . .	3	174	275	66	37.93	80	29.09	45.98
Winnebago, . .	3	285	561	117	41.05	162	28.88	56.84
Totals and mean per cent., . .	68	8,063	14,562	3,112	38.59	3,780	25.96	46.88

The aggregate of the admissions of all cases is 14,562; the aggregate recoveries, 3,780; and the proportion of

recoveries, 25.96 per cent. The largest proportion was 35 per cent., at Dayton; and the smallest, 18.58 per cent., at Harrisburg. At five others it was less than 23 per cent., and at still five others less than 30 per cent.; while at three besides Dayton, it was over 30 per cent.

The aggregate of admissions of recent cases, is 8,063; that of recoveries of recent cases, 3,112; and the proportion of recoveries of recent cases, 38.59 per cent. The largest proportion is 46.95 per cent., at Dayton; and the smallest, 26.96 per cent., at Columbia, S. C. Of the thirteen others, the proportion at one was less than 30 per cent.; at two, between 30 and 35 per cent.; at five, between 35 and 40 per cent.; and at five between 40 and 45 per cent.

Finding that, in despite of the traditional "75 to 90 per cent." of some of the fathers, not one of these hospitals discharged even 47 per cent. of recoveries of recent cases, while the mean or average of all of them was less than 39 per cent., I studied the relation between the *whole number of recoveries* and the number of *admissions of recent cases*. The whole number of recoveries is larger by 668 than the recoveries of recent cases, and the number of admissions of recent cases is 6,499 smaller than the whole number of admissions. Yet, strange as it may appear, the total of recoveries is only 46.88 per cent. of the admissions of recent cases! The largest proportion, 56.84 per cent., is at Winnebago, and the least, 33.67 per cent., at Harrisburg. Of the remaining thirteen hospitals, the proportion is less than 40 per cent. at one; between 40 and 45 per cent. at four; between 45 and 50 per cent. at five; between 50 and 55 per cent. at two; and over 55 (56.34) per cent. at one. Thus, after aiding and assisting the recoveries of recent cases by a supplementary and a complimentary gift of the certainly not despicable number of 668 cases, we have been unable to swell them even to 50 per cent. of the admissions of recent cases.

We now come to the hospitals which give the duration of the disease in the cases admitted, but give no such information in respect to the cases discharged. The following table includes the statistics, for a term of from three to six years each, of twenty-four institutions of this class. Of six of

them the term was six years; of eleven, five years; of six, four years; and at one, three years:—

TABLE V. — *Recoveries at Twenty-four American Institutions.*

HOSPITAL.	Years.	ADMISSIONS.		DISCHARGES.		
		Under 12 Months' Duration.	Total Admissions.	Total Recoveries.	Per cent. of Recoveries on all Admissions.	Per cent. of all Recoveries on Admissions of less than 12 Mos Duration.
Jacksonville, Ill., . . .	6	1,000	1,605	440	27.41	44.00
Mt. Pleasant, Iowa, . . .	6	852	1,548	400	25.84	46.95
Fulton, Mo., . . .	6	675	1,162	564	48.54	83.56
St. Joseph, Mo., . . .	6	435	740	257	34.73	59.08
Lincoln, Neb., . . .	6	414	654	267	40.83	64.49
Jackson, La., . . .	6	83	231	63	27.27	75.90
Hartford Retreat, . . .	5	300	434	150	34.56	50.00
Middletown, Ct., . . .	5	492	1,168	241	20.63	48.98
Middletown, N. Y., . . .	5	503	775	300	38.71	59.64
Trenton, N. J., . . .	5	373	786	244	31.04	65.42
Danville, Pa., . . .	5	263	695	110	15.83	41.83
Williamsburg, Va., . . .	5	165	380	171	45.00	104.00
Richmond, Va., . . .	5	357	559	254	45.44	71.15
U. S. Gov't Hospital, . . .	5	549	1,099	357	32.48	65.03
Jackson, Miss., . . .	5	235	526	228	43.35	97.02
Cleveland, O., . . .	5	681	1,135	414	36.48	60.79
Longview, O., . . .	5	470	882	325	36.85	69.15
Brattleboro, Vt., . . .	4	199	344	88	25.58	44.22
Stanton, Va., . . .	4	207	467	201	43.04	97.10
Weston, W. Va., . . .	4	136	328	104	31.71	76.47
Pontiac, Mich., . . .	4	320	707	145	20.51	45.31
Madison, Wis., . . .	4	307	746	163	21.85	53.09
St. Peter Minn., . . .	4	486	1,168	267	22.86	54.94
Augusta, Me., . . .	3	358	617	180	29.17	50.28
Totals and mean per cent., . . .	118	9,860	18,756	5,933	31.63	60.17

The total of admissions is 18,756; the total of recoveries, 5,933; and the proportion of all recoveries on all admissions, 31.63 per cent. The largest percentage of recoveries, 48.54, was at Fulton, Mo., and the smallest, 15.83, at Danville, Pa. Of the remaining 22 institutions, the proportion was less than 23 per cent. at four; from 25 to 30 per cent. at five; from 30 to 35 per cent. at five; from 35 to 40 per cent. at three; from 40 to 45 per cent. at three; and from 45 to 46 per cent. at two.

The whole number of *recent cases* admitted was 9,860; the whole number of recoveries, as before stated, 5,933; and the percentage of *all recoveries* upon the number of *recent cases* admitted, 60.17. Here, then, by setting aside and disregarding the 8,896 cases of more than 12 months

duration, we have succeeded in raising the recoveries to a point above 50 per cent.

By the union into one group, so far as they are susceptible of such union, of the contents of these two tables, we obtain the following aggregate results.

In 39 American hospitals, during a period of from three to six years each, making an aggregate of 186 years of hospital work, the number of patients admitted was 33,318; the number of patients discharged recovered, 9,713; and the proportion of recoveries, as compared with admissions, 29.15 per cent. In the factors producing this result it will be observed that all the cases of duplicate, triplicate and manifold recoveries of one and the same person, are included, and yet the recoveries do not rise to 30 per cent.

The whole number of *recent* cases admitted was 17,923; the total of recoveries of both recent and chronic cases, as already mentioned, 9,713; and the proportion of *all recoveries*, as compared with the admissions of *recent cases*, 54.19 per cent. But be it not forgotten that this result is obtained by the sacrifice, or annulment, of *fifteen thousand three hundred and ninety-five (15 395) admissions*, or, in other words, by calculating the proportion of recoveries upon a little more than one-half of the number of admissions.

RECOVERIES AT TWENTY AMERICAN HOSPITALS; THIRD TERM OF FIVE YEARS.

It will, perhaps, be remembered that my monograph on the Curability of Insanity, which was prepared in 1876, contained a list of twenty institutions for the insane, so tabulated with their statistics as to show the proportion of recoveries at each of two quinquennial periods, — the first of those periods being the second quinquennium of the existence of those hospitals, respectively, and the last period being the quinquennium terminating in either 1876 or one of the two immediately preceding years. The longest time wholly intervening between those two quinquennia was 44 years, at the McLean Asylum, Mass.; the shortest, 2 years, at the Mendota Hospital, Wisconsin; and the mean or average time, $18\frac{1}{2}$ years. But the true mean time, as applied to the gathering of the statistics — that is, the time

from the middle of the first quinquennium to the middle of the last — was five years longer, or $23\frac{1}{2}$ years.

The total of admissions in the first period was 14,516; the total of recoveries, 6,689; and the proportion of recoveries on admissions, 46.08 per cent. The admissions of the second period were 24,383; the recoveries, 8,354; and the proportion of recoveries, 34.26 per cent., or a fall of 11.82 in that proportion. This diminution equalled one-fourth, or to be exact, 25.66 per cent., of the recoveries of the first period.

As eight years have elapsed since the close of the second period, it has appeared to me that some similar researches, at a still later date, might tend more fully to illustrate the subject of curability, and perhaps secondarily, or indirectly, the general character of the disease. Accordingly, I have collected the statistics of admissions and recoveries at the same twenty institutions during a third period of five years, that period terminating, at nineteen of them, in or with 1884, and at one where the reports are biennial, in or with 1883. At two of the institutions, both of which use biennial reports, the duration of the period is six years. Those statistics, together with the results in each of the first two periods, are contained in the following table:—

TABLE VI. Recoveries at Twenty American Hospitals; Three Terms of Five Years Each.

INSTITUTION.	First Five Years.	Per cent. of Recoveries.	Second Five Years.	Per cent. of Recoveries.	Decrease of per cent. of Recoveries.	Third Five Years.	Total Admitted.	Total Recovered.	Per cent. of Recoveries.	Per cent. of Recoveries compared with that of Second Five Years.		Decrease of per cent. of Recoveries from First Five Years.
										Decrease.	Increase.	
Augusta, Me.,	1846-50	48.55	1871-75	36.62	11.93	1880-84	1,008	296	29.36	7.26	-	19.19
Concord, N. H.,	1848-52	46.92	1872-76	32.97	13.95	1880-84	623	158	25.36	7.61	-	21.56
Brattleboro', Vt.,	1841-46	43.50	1871-76	30.43	13.07	1878-83	551	124	22.50	7.93	-	21.00
McLean, Mass.,	1823-27	40.69	1871-75	21.66	19.03	1880-84	421	123	29.22	-	7.56	11.47
Worcester, Mass.,	1839-43	48.59	1871-75	29.75	18.84	1880-84	1,319	264	20.01	9.74	-	28.58
Taunton, Mass.,	1859-63	43.46	1871-75	23.11	20.35	1880-84	1,318	296	22.46	.65	-	21.00
Butler Hospital,	1854-58	39.78	1872-76	35.57	4.21	1880-84	635	194	30.55	5.02	-	9.23
Hartford Retreat,	1829-33	57.40	1870-74	39.21	18.19	1880-84	453	162	35.76	3.45	-	21.64
Bloomington, N. Y.,	1826-30	47.55	1871-75	32.55	15.00	1880-84	626	200	31.93	.60	-	15.60
Utica, N. Y.,	1848-52	43.17	1871-75	32.33	10.84	1880-84	2,020	610	30.20	2.13	-	12.97
Flatbush, N. Y.,	1861-65	41.88	1871-75	33.11	8.77	1880-84	2,071	336	16.22	16.89	-	25.66
Trenton, N. J.,	1853-57	42.79	1872-76	31.32	11.47	1880-84	836	251	30.02	1.30	-	12.77
Pennsylvania Hospital,	1846-50	51.10	1871-75	42.30	8.80	1880-84	973	328	33.71	8.59	-	17.39
Dixmont, Penn.,	1861-65	37.78	1871-75	30.01	7.77	1880-84	968	216	22.31	7.70	-	15.47
Catonsville, Md.,	1839-43	51.59	1871-75	40.83	10.76	1880-84	656	209	31.86	8.97	-	19.73
Newburg, O.,	1860-64	46.63	1871-75	30.03	16.60	1880-84	1,147	439	38.27	-	8.24	8.36
Dayton, O.,	1860-64	60.16	1870-74	45.25	14.91	1880-84	910	337	37.03	8.22	-	23.13
Indianapolis, Ind.,	1853-57	57.26	1871-76	52.48	4.78	1880-84	4,010	1,678	41.84	10.64	-	15.42
Jacksonville, Ill.,	1855-60	46.53	1869-74	31.96	14.57	1879-84	1,486	395	26.58	5.38	-	19.95
Mendota, Wis.,	1865-69	33.82	1871-75	25.86	7.96	1880-84	1,021	280	27.42	-	1.56	6.40
Totals and mean per cent.,		46.08		34.26	11.82		23,052	6,896	29.91	4.35		16.17

The aggregate admissions in the course of this third period is 23,052; the aggregate recoveries, 6,896; and the proportion of recoveries, 29.91 per cent. of the admissions, — a result which demonstrates that the reported recoveries have continued to diminish, during the last eight years, in very nearly the same annual ratio as they had diminished between the first and the second period.

The following is a summary of the results of the whole investigation: —

Recoveries in the first period, 46.08 per cent. of the admissions.

Recoveries in the second period, 34.26 per cent. of the admissions.

Recoveries in the third period, 29.91 per cent. of the admissions.

Decrease of recoveries from first to second periods, 11.82 per cent. of the admissions.

Decrease of recoveries from second to third periods, 4.35 per cent. of the admissions.

Total decrease of recoveries from first to third periods, 16.17 per cent. of the admissions.

The decrease of recoveries from first to second periods is 25.66 per cent. of the recoveries of the first period.

The decrease of recoveries from second to third periods is 12.69 per cent. of the recoveries of the second period.

The total decrease from the recoveries of the first period is equal to 35.09 per cent. of the recoveries of the first period.

The numbers of the insane subjected to treatment being hypothetically the same at the three periods, then, for each hundred (100) that recovered in the first period only seventy-four (74.34) recovered in the second period, and only sixty-five (64.91) recover now.

The proportion of recoveries between the last two periods, from 1879 to 1884, did not diminish at all of the twenty institutions. At three of them it increased. At the McLean Asylum this increase was 7.56 per cent. of the admissions; at the Newburg, Ohio, hospital, it was 8.24 per cent.; and at the Mendota, Wisconsin, hospital, 1.56 per cent. But notwithstanding this augmentation, the actual decrease from

the proportion recovered in the first period, at those three institutions, is still 11.47, 8.36, and 6.40 per cent., respectively.

The decrease from the second to the third period, and the total decrease from the first to the third period, at each of the 17 other institutions, may be learned from the last two columns of the table. The decrease is more than one-half at the Worcester and the Flatbush hospitals; very nearly one-half at Brattleboro' and Taunton; and more than one-third at Augusta, Concord, Hartford, Pennsylvania Hospital, Dixmont, Catonsville, Dayton and Jacksonville.

STATISTICS OF ONE YEAR AT FIFTY-EIGHT AMERICAN INSTITUTIONS.

For the purpose of ascertaining the extent to which the results of one year of the current work at American institutions would enlighten us upon the subject of curability, I have collected and herewith present, in Table VII., the statistics of fifty-eight of them, taken, in fifty-one instances, from the reports for 1884. Of seven of the hospitals the reports are biennial, and consequently contain the results for two years each. In four instances the report from which these results were taken ended in 1884; in one instance in 1883, and in two in 1882.

I am well aware of the many influences, both favorable and unfavorable, which may, and often do, modify the number of recoveries, as well as of deaths, in public institutions, and which necessarily render the results of any one year unreliable as a test or measure of the work of a series of years, at any individual hospital. But at a large number of institutions on any given year, these influences would probably very nearly balance one another, and consequently the aggregate results would fairly represent the mean or average of the same group of institutions for a much greater length of time.

TABLE VII.—*One Year at Fifty-Eight American Institutions.*

INSTITUTION.	State.	Year.	Admitted.	Recovered.	Per cent. of Recoveries.	Died.	Per cent. of Deaths.
Augusta, . . .	Me., .	1884	203	59	29.06	101	49.75
Concord, . . .	N. H., .	1884	141	18	12.77	24	17.02
Brattleboro', . .	Vt., .	1884	82	23	28.05	29	35.36
McLean, . . .	Mass., .	1884	113	34	30.09	17	15.04
Worcester, . . .	Mass., .	1884	252	53	21.03	57	22.62
Northampton, . .	Mass., .	1884	136	25	18.38	25	18.38
Taunton, . . .	Mass., .	1884	283	85	30.04	65	22.97
Danvers, . . .	Mass., .	1884	530	96	18.11	101	19.06
Boston, City, . .	Mass., .	1884	121	34	28.10	32	26.45
Butler, . . .	R. I., .	1884	106	46	43.40	13	12.26
Hartford Retreat, .	Ct., .	1884	97	37	38.14	18	18.56
Middletown, . . .	Ct., .	1884	271	72	26.57	80	29.52
Bloomington, . . .	N. Y., .	1884	136	55	40.44	27	19.85
Flatbush, . . .	N. Y., .	1884	479	47	9.81	101	21.09
Utica, . . .	N. Y., .	1884	372†	89	23.92	56	15.05
Buffalo, . . .	N. Y., .	1884	275	80	29.09	43	15.63
Trenton, . . .	N. J., .	1884	175	52	29.71	64	36.57
Morristown, . . .	N. J., .	1884	210	37	17.62	57	27.14
Penna. Hos., . . .	Pa., .	1884	203	51	25.12	40	19.70
Harrisburg, . . .	Pa., .	1884	128	23	17.97	36	28.12
Dixmont, . . .	Pa., .	1884	189	28	14.81	69	36.50
Danville, . . .	Pa., .	1884	201	37	18.41	29	14.42
Norristown, . . .	Pa., .	1884	356	92	25.84	96	26.96
Warren, . . .	Pa., .	1884	203	36	17.73	46	22.66
Catonsville, . . .	Md., .	1884	95	29	30.53	30	31.57
Mount Hope, . . .	Md., .	1884	169	77	45.56	45	26.62
Washington, . . .	D. C., .	1884	347	79	22.77	67	19.30
Staunton, . . .	Va., .	1884	133	55	41.35	36	27.06
Richmond, . . .	Va., .	1884	119	97	81.51	61	51.26
Weston, . . .	W. Va., .	1884	176	74	42.05	39	22.15
Raleigh, . . .	N. C., .	1884	106	26	24.53	11	10.37
Goldsboro', . . .	N. C., .	1884	81	26	32.10	14	17.28
Morganton, . . .	N. C., .	1884	71	31	43.66	9	12.67
Columbia, . . .	S. C., .	1884	293	72	24.57	143	48.80
Austin, . . .	Texas, .	1884	254	66	25.98	41	16.14
Little Rock, . . .	Ark's, .	1884	82	42	51.22	21	25.61
Nashville, . . .	Tenn.,*	1882-84	222	67	30.18	62	27.93
Columbus, . . .	Ohio, .	1884	282	164	58.16	59	20.92
Newburg, . . .	Ohio, .	1884	220	87	39.55	37	16.81
Dayton, . . .	Ohio, .	1884	188	60	31.91	37	19.68
Athens, . . .	Ohio, .	1884	223	96	43.05	63	28.25
Longview, . . .	Ohio, .	1884	220	56	25.45	58	26.36
Indianapolis, . . .	Ind., .	1884	908	329	36.23	112	12.33
Pontiac, . . .	Mich., .	1884	192	62	32.29	29	15.10
Kalamazoo, . . .	Mich., .	1884	174	17	9.77	9	5.17
Jacksonville, . . .	Ill., .	1884	240	56	23.33	32	13.33
Elgin, . . .	Ill., .	1884	123	38	30.89	21	17.07
Anna, . . .	Ill., .	1884	220	67	30.45	33	15.00
Kankakee, . . .	Ill., .	1884	291	48	16.49	31	10.65
Mendota, . . .	Wis., .	1884	239	58	24.27	30	12.55
Oshkosh, . . .	Wis.,*	1883-84	601	148	24.63	115	19.13
Mt. Pleasant, . . .	Iowa,*	1882-83	534	120	22.47	98	18.35
Independence, . . .	Iowa, .	1883	233	38	16.31	34	14.59
St. Peter, . . .	Minn.,*	1883-84	595	143	24.03	82	13.78
Rochester, . . .	Minn.,*	1883-84	299	55	18.39	43	14.38
Fulton, . . .	Mo.,*	1881-82	364	175	48.08	113	31.04
St. Joseph, . . .	Mo.,*	1881-82	316	110	34.81	49	15.51
Napa, . . .	Cal., .	1884	500	130	26.00	90	18.00
Totals and mean per cent., . . .	-	-	14,372	4,007	27.88	2,980	20.74

* Biennial.

† 15 cases "found not insane" are deducted.

The aggregate of patients admitted at these fifty-eight institutions, in the course of the time specified, is 14,372; the aggregate of recoveries, 4,007; and the proportion of recoveries, calculated upon the admissions, 27.88 per cent., or a trifle more than one-fourth. The least relative number of recoveries, 9.77 per cent., was at Kalamazoo; and the largest, 81.51 per cent., at Richmond.

In the following schedule the hospitals are arranged in groups, according to the proportion of their recoveries, each group differing five per cent., from the one above or below it.

Below 10 per cent.,	Flatbush and Kalamazoo.
From 10 to 15 per cent.,	Concord and Dixmont.
From 15 to 20 per cent.,	Northampton, Danvers, Morristown, Harrisburg, Danville, Warren, Kankakee, Independence and Rochester.
From 20 to 25 per cent.,	Worcester, Utica, U. S. Gov't Hospital, Raleigh, Columbia, S. C., Jacksonville, Mendota, Oshkosh, Mt. Pleasant and St. Peter.
From 25 to 30 per cent.,	Augusta, Brattleboro', Boston, Middletown, Ct., Buffalo, Trenton, Penna. Hospital, Norristown, Austin, Longview and Napa.
From 30 to 35 per cent.,	McLean, Taunton, Catonsville, Goldsboro', Nashville, Dayton, Pontiac, Elgin, Anna and St. Joseph.
From 35 to 40 per cent.,	Hartford Retreat, Newburg and Indianapolis.
From 40 to 45 per cent.,	Butler, Bloomingdale, Staunton, Weston, Morganton and Athens.
From 45 to 50 per cent.,	Mount Hope and Fulton.
From 50 to 55 per cent.,	Little Rock.
From 55 to 60 per cent.,	Columbus.
Over 60 per cent.,	Richmond.

If there be no mistake in the record from the Virginia Central Asylum, at Richmond, that institution, so far as my knowledge extends, has exceeded every other of its kind, not in America alone but upon the whole surface of the earth, in the proportion of its recoveries. Forty years ago, it was doing well to report the recovery of eighty per cent. of *recent* cases. At the present time, it is rare that even sixty per cent. are so reported, and the average in the United States, as we have just seen, is below forty per cent. But here we are confronted with a proportion of 81.51 per cent. of *recoveries of all the cases admitted!* The moral to be derived herefrom appears to be, that, if any person yet

unborn be blessed with the pre-natal power of foreordination of his own physical organization, and desires to recover in case he be afflicted with insanity, he should elect to be born a negro.*

There is yet another useful moral to be derived from the case. At the Danvers Hospital, which, before it went into operation, had cost more than \$3,500 for every patient for whom its accommodations were calculated, and more than \$2,500 for each of the seven hundred patients who have been crowded into it, the per cent. of recoveries was 18.11. At the Richmond Hospital, which apparently could not have cost over \$100, and probably not more than \$50, per patient, the recoveries were equal to 81.51 per cent. The moral is so conspicuously obvious, that it would be a work of supererogation to repeat it.

In Table VIII., the fifty-eight hospitals and their statistics are grouped according to the States in which they are respectively situated.

TABLE VIII.—*State Groups, One Year.*

STATE.	No. of Hospitals.	Admissions.	Recoveries.	Per cent. of Recoveries	Died.	Per cent. of Deaths.
Maine,	1	203	59	29.06	101	49.75
New Hampshire,	1	141	18	12.77	24	17.02
Vermont,	1	82	23	28.05	29	35.36
Massachusetts,	6	1,435	327	22.79	297	20.69
Rhode Island,	1	106	46	43.40	13	12.23
Connecticut,	2	368	109	29.62	98	26.63
New York,	4	1,262	271	21.47	227	17.99
New Jersey,	2	385	89	23.12	121	31.15
Pennsylvania,	6	1,280	267	20.80	316	24.69
Maryland,	2	264	106	40.15	75	28.41
District of Columbia,	1	347	79	22.77	67	19.31
Virginia,	2	252	152	60.31	97	38.49
West Virginia,	1	176	74	42.05	39	22.15
North Carolina,	3	258	83	32.17	34	13.18
South Carolina,	1	293	72	24.57	143	48.80
Texas,	1	254	66	25.98	41	16.14
Arkansas,	1	82	42	51.22	21	25.61
Tennessee,	1	222	67	30.18	62	27.93
Ohio,	5	1,133	463	40.86	254	22.41
Michigan,	2	366	79	21.58	38	10.38
Indiana,	1	908	329	36.23	112	12.33
Illinois,	4	874	209	23.91	117	13.38
Wisconsin,	2	840	206	24.52	145	17.26
Iowa,	2	767	158	20.60	132	17.21
Minnesota,	2	894	198	22.14	125	13.98
Missouri,	2	680	285	41.91	162	23.82
California,	1	500	130	26.00	90	18.00
Totals and mean per cent.,	58	14,372	4,007	27.88	2,980	20.74

* The Virginia Central Asylum is for colored persons.

The proportion of recoveries was the smallest in New Hampshire, and that proportion increased in the other States in the following order: Pennsylvania, Iowa, New York, Michigan, Minnesota, District of Columbia, Massachusetts, New Jersey, Illinois, Wisconsin, South Carolina, Texas, California, Vermont, Maine, Connecticut, Tennessee, North Carolina, Indiana, Maryland, Ohio, Missouri, West Virginia, Rhode Island, Arkansas and Virginia.

If the statistics of recoveries be arranged in accordance with the groups popularly called the Eastern, the Middle, the Southern, and the Western States, the results are as follows:—and to them are appended the percentage of deaths, calculated, like the recoveries, upon the number of patients admitted.

In the Eastern States the total of admissions was 2,335; the total of recoveries, 582; and the proportion of recoveries, 24.92 per cent. The number of deaths was 562, and the proportion, 24.07 per cent. The number of recoveries exceeded that of deaths by only 20.

In the Middle States the number of admissions was 2,927; the number of recoveries, 627; and the proportion of recoveries, 21.42 per cent. There were 664 deaths, equal to a percentage of 22.69. The deaths have a majority of 37 over the recoveries; and the proportion of both recoveries and deaths is less than in the Eastern States. It has been suggested in one of the criticisms of a psychological periodical, that the small ratio of recoveries in Massachusetts is a consequence of the published writings of the superintendent of one of the hospitals in that State. As, according to these statistics, the proportion of recoveries is less in the Middle States than in Massachusetts, the proposition now is,—*Whose published writings were the cause of it?*

In the Southern States 1,844 patients were admitted; and 632, or 34.27 per cent., recovered. The total of deaths was 496, or 26.90 per cent. The proportion of recoveries is nearly ten per cent. on the admissions in excess of those of the Eastern States; and that of deaths nearly three per cent. The proportion of recoveries is considerably increased by the statistics of the Richmond Asylum. If those statistics be set aside, and the computation made upon the returns from the

other Southern institutions, the results are: Admissions, 1,725; recoveries, 535; per cent. of recoveries, 31.21. Deaths, 435; per cent. of deaths on admissions, 25.21.

In the Western States the admissions were 7,266; the recoveries, 2,166; and the proportion of them 29.81 per cent. Of deaths there were 1,258, or a proportion of 17.31 per cent., which is more than five per cent. of the admissions less than in either of the other sections.

Arranged in accordance with the *increasing* ratio of recoveries, that is, from lowest to highest, the sections stand as follows: Middle, Eastern, Western, Southern; and in accordance with the *decreasing* ratio, from highest to lowest, of deaths, as follows: Southern, Eastern, Middle, Western.

These results are derived from the work of but a single year, and hence are unreliable as an established formula. By the extension of the investigation over a sufficient series of years, something more reliable might be obtained. Then, and not now, will be the time to speculate upon the causes of the differences.

STATISTICS OF PENNSYLVANIA HOSPITALS.

The table to which attention is now requested includes statistics of the seven hospitals in Pennsylvania, during a period of five years each, with the exception of that at Warren, which is of but four years. At all of them the period ended in, or with, the year 1884.

TABLE IX. — *Pennsylvania Hospitals.*

		Admitted.	Recoveries	Per cent. of Recoveries.	Died.	Per cent. of Deaths.
Frankford, . . .	1880-84	196	58	29.59	39	19.90
Penna. Hospital, . .	" "	973	328	33.74	147	15.11
Dixmont, . . .	" "	968	216	22.31	277	28.61
Harrisburg, . . .	" "	772	121	15.97	174	22.54
Danville, . . .	" "	720	114	15.83	118	16.39
Norristown, . . .	" "	1,458	275	18.86	290	19.89
Warren, . . .	1881-84	847	92	10.86	113	13.34
Totals and mean per cent., . . .	-	5,934	1,204	20.29	1,158	19.51

The whole number of cases admitted was 5,934; the total of recoveries, 1,204; and the proportion of recoveries, 20.29 per cent. But Norristown and Warren are both new hospitals, and in their first years received many transfers from other institutions. Hence they are unfairly represented. We will therefore permit the statistics of only the last two years at these institutions to enter into the computation, retaining, for the others, the full period of five years. Those statistics are as follows: —

		Admitted.	Recovered.	Per cent. of Recoveries.	Died.	Per cent. of Deaths.
Norristown, .	1883-1884	777	195	25.09	219	28.18
Warren, .	1883-1884	388	70	18.04	80	20.62
Totals and mean per cent., .	-	4,794	1,102	22.98	1,054	21.98

By a substitution of these figures for those contained in the next preceding table, it will be found that the whole number of admissions is 4,794; the number of recoveries, 1,102; and the proportion of recoveries, 22.98 per cent., or a gain of 2.69 per cent. on the admissions, by the change.

At the four State Hospitals of Massachusetts, the proportion of recoveries in the three fiscal years ending in 1882, and the statistics of which form the basis of an article on curability in the annual report of this hospital for that year, was 22.25 per cent. This is seventy-three hundredths (.73) of one per cent. less than that of the Pennsylvania hospitals, according to these statistics. But this difference is more than counterbalanced by the fact that the Massachusetts statistics relate to *persons* only, while those of Pennsylvania relate to *cases*. In the latter all duplicate, triplicate and multiplicate recoveries are included, while in the former they are all *rejected*.

By the first of the two tables the deaths were 1,158, and their proportion on the admissions, 19.51 per cent. By the last table they were 1,054, and their proportion, 21.98 per cent., or an increase of 2.47 per cent. This increase is a natural result, as deaths are generally comparatively few in the first two or three years of a hospital's operations.

TESTIMONY OF THE DANVERS HOSPITAL.

The experience at the newest State institution in Massachusetts is both instructive and disappointingly interesting, in the light which it throws upon the curable, or rather the incurable, condition of a great mass of the insane of the present epoch in this State.

The Danvers Hospital was opened for the reception of patients on the 18th of May, 1878; and, during the last four or five years, it has been directed by the highest grade of medical ability. It is, emphatically, one of those establishments upon which a flood of money has been poured, for the purpose of creating a curative institution as nearly perfect as possible under the light of existing knowledge. If abundance of pecuniary means in construction, together with what was believed to be the highest embodied ideal of architectural arrangements, could cure insanity more rapidly than a less costly and more simple structure, that hospital, most assuredly, was prepared for a demonstration of the proposition. It was evident, in its earliest years, that great efforts were made to arrive at such a demonstration, and thus prove that the curative advantages of the institution were an adequate, or — since the value of reason restored is not to be measured by dollars and cents — *more* than adequate compensation for the excess of expenditure. The usual custom of a large transfer of chronic and incurable cases from older hospitals or asylums to the new one, was here omitted, and the supply of patients was derived chiefly from current commitments. By this means the proportion of recent cases was much higher than usual from the first; and as Boston and five other large centres of population — which usually furnish a larger ratio of recent cases than the rural districts — are within a comparatively short distance from it, that proportion was raised still higher.

The fiscal year of the State institutions terminated four and one-half months after the hospital was opened. During this period 305 patients were admitted; and 26, or 8.82 per cent., discharged recovered. In the course of the next — 1878-79 — fiscal year, 653 were admitted; and 115, or 17.61 per cent., discharged recovered. In 1879-80 the admissions

were 581, and the discharge of recoveries 165, making the percentage of the latter 28.40. At this point the proportion of recoveries stopped upon its ascending scale, and took a retrograde direction. In 1880-81 the admissions were 497, the recoveries discharged 124, and the percentage 24.95; in 1881-82, admissions 512, discharged recoveries 89, percentage 17.38; in 1882-83, admissions 488, discharged recoveries 80, percentage 16.39; and in 1883-84, admissions 530, discharged recoveries 96, and the percentage of the latter 18.11.

The whole number of admissions, during the six years and four and one-half months, was 3,566; and that of discharged recoveries 695, or an equivalent of 19.49 per cent. In the first three full fiscal years, the admissions were 1,731, the discharged recoveries, 404, and the per cent. of the latter 23.34; and in the last three fiscal years, admissions 1,530, discharged recoveries 265, per cent. of recoveries 17.32. In the first period of three years, the deaths were 240, or 13.86 per cent. of the admissions; and in the last period 285, or 18.63 per cent. of the admissions. In the first period the deaths were 240, a per cent. of 59.4 on the recoveries; and in the last period, they exceeded the recoveries by 20, the deaths being to the recoveries as 57 to 53.

The new formulæ for statistics in Massachusetts give the ability still further to illustrate the character of the recoveries,—an ability rendered by the reports of no other State in the Union. The new tables were adopted in 1879, and first used in the reports for 1879-80. In the course of the five fiscal years ending Sept. 30, 1884, 554 patients, or cases, were discharged recovered from the Danvers Hospital; but 115 persons, who had been discharged recovered a total of 121 times, had returned to it. Within the last three years,—which are included in the foregoing years,—the discharged recoveries were 265; but, during the same time, 80 persons, representing 86 of those recoveries, were readmitted. So far as the community is concerned, these recoveries offset, or cancel, the same number of the discharged recoveries, and the added recoveries in the population, instead of being 265, are 265 minus 86, or 179, a diminution of about one-third, and only 11.70 per cent. on the number of admissions during that period.

READMITTED RECOVERIES IN MASSACHUSETTS.

The annual report of this hospital for the fiscal year 1881-82, contains an article on the statistics of the State Hospitals of Massachusetts during the three years which had then elapsed since the adoption of the new series of tables. I desire to call attention to some points in the statistical history of recoveries, as illustrated by the same hospitals, during the two years since that article was published. For this purpose a table is here introduced which shows, for the fiscal years 1882-83 and 1883-84:—

1st. The number of persons admitted who had previously been discharged recovered;

2d. The number of times they had previously recovered;

3d. The ratio of recoveries to persons; and

4th. The number of persons discharged recovered during those two years, at each of the four hospitals aforesaid.

TABLE X. — *Two Years at Massachusetts Hospitals.*

HOSPITALS.	ADMISSIONS.			DISCHARGES.
	Persons Admitted who had previously been Discharged Recovered.	No. of times they had Recovered.	Ratio of Recoveries to Persons.	Persons Discharged Recovered.
Worcester,	43	118	2.73	109
Taunton,	64	147	2.29	145
Northampton, . . .	21	39	1.85	53
Danvers,	49	54	1.1	176
Totals,	177	358	2.02	483

The number of persons admitted who had previously been discharged recovered, was 177; and they had been discharged recovered a total of 358 times. There were 181 more recoveries than persons. In other words, the number of recoveries was four more than twice as great as the number of persons. Each person had recovered, as a mean or average number, 2.02 times. Regarded, during the last two years, from a debt and credit point of view, those four institutions cancelled, by taking back from the general population, no less than 358 recoveries for which they had been credited.

During the same time they discharged recovered, 483 persons, which is only 125 more than the *recoveries* (not persons) which they had taken back.

Summary. A brief résumé of the most important results of the foregoing studies, expressed in the percentages of recoveries, may be found convenient for reference.

1. *Cases of first attack; duration less than three months.*

a. Earle's 8,316 cases, at 23 British asylums. Recoveries 48.71 per cent.

b. Chapman's 38,283 cases, at 46 British asylums. Recoveries 48.72 per cent.

2. *Cases of first attack; duration less than twelve months.*

a. Earle's 10,929 cases, at 23 British asylums. Recoveries 44.06 per cent.

b. Chapman's 50,409 cases, at 46 British asylums. Recoveries 43.79 per cent.

3. *Not first attack; duration less than twelve months.*

a. Earle's 4,768 cases, at 23 British asylums. Recoveries 55.37 per cent.

b. Chapman's 19,574 cases, at 46 British asylums. Recoveries 53.61 per cent.

In neither of the three foregoing classes have we any American statistics, because our institutions, in the tabulation of their cases, make no discrimination which would render such a classification possible.

4. *All cases of duration less than twelve months.*

a. Earle's 15,697 cases, at 23 British asylums. Recoveries 47.49 per cent.

b. Chapman's 69,983 cases, at 46 British asylums. Recoveries 46.52 per cent.

c. Earle's 8,063 cases, at 15 American institutions. Recoveries 38.59 per cent.

5. *All recoveries, calculated on all admissions.*

a. Chapman's 93,443 cases, at 46 British asylums. Recoveries 37.95 per cent.

b. Earle's 33,318 cases, at 39 [15+24] American institutions. Recoveries 29.15 per cent.

c. Earle's 23,052 cases; 3d period at 20 American institutions. Recoveries 29.91 per cent.

d. Earle's 14,372 cases; in one year at 58 American institutions. Recoveries 27.88 per cent.

It will be perceived that, so far as these statistics are an index, the recoveries in British asylums, both of recent cases and of all cases admitted, exceed the recoveries in the American institutions by between 8 and 9 per cent.

The most important general conclusions to be derived from the statistics included in this paper, are, first, that the old claim of curability in a very large majority of recent cases is not sustained, and that the failure to sustain it is more apparent and more striking than at any antecedent time; and, secondly, that the percentage of reported recoveries of all cases received at the hospitals in this country still continues to diminish.

It is believed that this diminution is, in part, to be attributed to the admission of a larger proportion of chronic cases, and of cases of greater degeneracy from their origin; in part, from the increasing though as there is good reason to believe still far from universal practice of not reporting *as recoveries from insanity* either mere restorations from a drunken debauch or forced temporary suspensions from habitual intoxication; and, in part, perhaps, from the adoption of a higher degree of improvement as the standard or criterion of recovery. It may be that there is still another cause of that diminution. Drs. Bucknill and Tuke, in their treatise upon insanity, mention what they call "cooked" statistics. It is possible that, in the United States, this class of published results is decreasing, and that the reported statistics are more generally given to the public in the spirit of a conscientious loyalty to scientific truth.

In conclusion I would express the hope, that the time is not far distant at which the American Association of Superintendents will so perfect its statistical system as to make a distinction between persons and cases, and enable the reader to learn how many of the reported recoveries are first recoveries and how many subsequent to the first. This improvement was made in the Massachusetts statistical tables, as already mentioned, in 1879; and in those of the British Medico-Psychological Association in 1883. Surely the American Association ought not to lag far behind in the matter.

CHRONOLOGY OF THE HOSPITAL.

[N. B. The years are the calendar years, and not the official years of the hospital.]

- 1855.** Legislative Act, authorizing the construction of the hospital by a board of three commissioners, approved by the Governor, May 21st.
 Enos Clark lot bought, northeast corner of the farm; 24a. Deed executed Sept. 3. This lot was conveyed back to Mr. Clark and reconveyed to the Commonwealth, May 13, 1856.
 William Parsons lot bought; 28a. 25r. Deed executed Sept. 4.
 Samuel Day lot bought; 5a. 16r. Deed executed Sept. 4.
 George Ellsworth's farm and buildings bought; 100a. 94r. Deed executed Sept. 5.
 Samuel Phelps lot bought; 9a. 60r. Deed executed Sept. 6.
 Silas D. Clark lot bought; 5a. 20r. Deed executed Sept. 6.
- 1856.** Legislative Act, establishing a board of trustees, approved by the Governor, June 3.
 July 4. Corner-stone laid.
 July 4. First meeting of the board of trustees, at the Warner House.
- 1857.** Oct. 1. Term of building commissioners expired.
 Oct. 1. Trustees voted to proceed to complete the building.
- 1858.** Feb. 19. By-laws, as reported by Mr. Boynton, adopted.
 August. Hospital opened.
- 1859.** The hospital was at first supplied with water by Mr. Damon, from his pond on Mill River.
 March 16. A break occurred at the west end of Mr. Damon's dam, destroying the water power. Water was brought in barrels, and pumped into the tank, until the twenty-fifth of the month.
- 1860.** A high, wooden, picket fence built next the county road, from the farm house westward.
 Foundation walls for the barn laid.
 A brick pump house, with boiler and pump, for forcing water to the hospital, was erected on the premises near Mr. Damon's dam. It stood until after water was taken from the public water works, and was then taken down.
- 1861.** Five small lots of land bought, one-eighth of an acre each. Deed executed by William H. Prince, May 13.
 July 31. The barn and the adjoining piggery are finished.
 August 31. The coal-house is finished. This is the coal-house adjoining the boiler-room. Prior to its construction, a roadway, which was laid out around the whole building, passed over its site.
 The bowling alley was erected this summer.
- 1862.** The reservoir at the spring, southwest of the hospital, and on the premises, was made, and the adjoining pump house erected.
 November. Cooking range and broiler put in the kitchen.

- 1863.** March 31. The water works at the spring are in successful operation. The power was a caloric engine, taken on trial. Several breakages had occurred. There were others afterwards, and, on the 5th of August, it was voted not to accept the engine.
- 1864.** A new steam forcing-pump put into the house at the spring.
The four original flue steam boilers taken out, and replaced by tubular ones.
All the pipes for the distribution of water throughout the house were taken down and cleaned out.
The roadway at the main entrance from the county road graded down. This entrance was closed in the spring of 1869. It was half-way down the hill, east of the present entrance.
- 1865.** Mattress making by the patients introduced.
Storeroom for groceries and meats fitted up, and an outside door opening directly into it made.
A storeroom for charcoal made in the north basement.
A paint shop and a storeroom for vinegar and soap made in the south basement.
Partitions made at the foot of the stairways, and across the halls leading to the laundry and the sewing-room.
Coal-house at the railroad built.
A painter hired as a permanent employee.
Hill east of lower or main entrance partly graded down.
Peat meadow lot bought of W. C. Rice; 1a. 90r. Deed executed Sept. 19.
Vestibules to the superintendent's apartments, on the second and third floors, partitioned off from the rotunda, and doors made from them into the bath-rooms.
Began to grade down the bluff next the county road, between the farm-house and the lower entrance.
Philosophical and chemical apparatus bought.
Storeroom for sand made in basement.
A steam whistle put in, the sound of the bell not being sufficiently loud for all purposes.
New road made in front of the north wing. The original road was much nearer the building, and extended around the wing.
- 1866.** Two iron water tanks put in north attic. All the original tanks were of wood.
Hay-scales bought and put in place.
Chapel painted in water colors.
Doors put upon the staircases, between the third and fourth halls, both north and south.
An additional (fourth) steam boiler put in.
Iron settees put in the rotunda. Up to this time there had been no furniture, except the large boxes of plants, and no pictures in either of the three stories of the rotunda.
Two cylindrical iron water-tanks put in the attic of the south wing.
- 1867.** Sewing-room doubled in size, and the dry-goods cases in it made.
Case made for philosophical apparatus.
New road finished across the lawn, in front of the south wing, and the old one closed.

Horse-chestnut trees set in front of the south wing.

Bath-rooms, lavatories, and water-closets of the south wing remodelled, and the ventilation improved.

Land for a depot for peat, or "meadow-muck," bought of William Foley; 80r. Deed executed June 18.

Carriage road made across west end of west meadow.

Floor of lower 3d hall, south, relaid. Nearly all of the hall floors were of maple, insufficiently seasoned. After this date, one or more of them was relaid every year, until 1877, when only one of the original floors of the twenty-four halls remained.

The brownstone piers, for a gateway at the upper entrance, were built.

1868. Iron gates at the main entrance put up. The former main entrance was closed in the spring of 1869.

Exchange of land with Samuel Day, reducing the number of boundary lines from five to two. Day's deed executed Sept. 30. (See Registry of Deeds, Book 255, p. 307.)

The stone wall of the south barnyard built.

Book-case, lower rotunda, north side, made; also nearly fifty wardrobes.

1869. Piggery removed twenty-nine feet westwardly, its height to the eaves increased eighteen inches, and the shed connecting it to the barn erected.

The capacity of the coal-house at the railroad was doubled by an extension.

Grading of the bluff, next the county road, finished, and a wooden picket-fence made from the main entrance to the foot of the hill.

Samuel Parsons lot, south of county road, bought; 7a., more or less. Deed executed June 5. (See Registry of Deeds, Book 262, p. 253; see, also, Book 263, p. 327.)

Curved iron fence at entrance gate put up.

Four additional cases, for books, etc., put into the rotundas.

New building, for laundry and other purposes, erected.

1870. New laundry put in operation in January. The old laundry was over the boiler-room and the engine-room.

A severe hail-storm, on the 20th of May, broke about five hundred panes of glass in the hospital building.

Barn remodelled. Cow stable changed from north to south side. The frame strengthened by larger timbers.

Carpenter's shop built on the walls of the coal-house. The old shop was in the basement of the south wing of the hospital.

Shop for engineer partitioned off from old laundry and carpenter's shop.

Screw-cutting and drill machines put in.

Two more iron water-tanks put in attic of north wing.

Gold's radiators put in the basement of the second sections of both wings.

Old clothes-drying room divided, making a room for the flat-heater, and a lodging-room.

1871. Floor of old laundry, now lumber-drying room, relaid.

Cart shed built at the northwest corner of the bowling alley.

Original heating apparatus taken out of the basement of the south wing, the four air-chambers united into one, the track of the railroad changed, and Gold's radiators put in.

Began to take water of the Northampton Water Works Co., December 25.

- 1872.** Old blacksmith's shop, under superintendent's office, fitted up as a storeroom for groceries.

Walls of upper 4th hall, south, painted in oil. Since that time, and prior to 1884, the walls of all the patients' halls, dining-rooms and dormitories, have been similarly painted.

Floor of the middle rotunda relaid.

Sixteen fire hydrants placed in the wings, and four out of doors.

Cart shed extended across west end of bowling alley.

Old folding-room of the laundry divided by a permanent partition, and an outside door, with platform and steps, made, furnishing apartments for the engineer and his family.

Basement of north wing remodelled, and new radiators put in to correspond with that of the south wing, after the change in 1871.

Five forty-inch ventilators put upon the roof of the hospital.

Floor of the laundry folding-room relaid.

The walls of all the airing courts were erected and finished before November 1.

A large storeroom for apples fitted up in the basement of the south wing. In the original structure this room had no light, as there were no windows beneath the water table on the front of the building.

- 1873.** Room opposite the sewing-room divided by a permanent partition, making a room for the seamstress and another for storage.

The floors of twenty of the twenty-four halls have now been relaid.

The floor of the upper rotunda was relaid.

All the distributing pipes for water were taken out and replaced by new ones, those for cold water being lined with cement.

Elevator from the folding-room to the sewing-room put in, and the laundry and the sewing-room connected by a narrow staircase.

Circular saw put in.

One hot water tank, in the rotunda basement, taken out and replaced by a new one.

All the bath-rooms, lavatories, and water closets of the north wing remodelled, with new floors and larger sinks.

Two of Wright's bucket-plunger steam-pumps put in.

The old clay pit, southeast of the hospital, on land received, in exchange, from Samuel Day, was filled by grading down the adjoining bluffs.

The subordinate office of steward was created.

New cooking apparatus, broiler excepted, put in.

Oven in bakery rebuilt.

- 1874.** Clarke orchard bought; 15a. 79r. Deed executed May 15th.

Iron receiving-tank put in the fourth story of the centre. The old tank was of wood, and sixteen feet in diameter.

A new steam cylinder affixed to the engine, increasing its power about one-third.

A ventilating pipe from the kitchen to the large chimney put in.

Letter boxes put in the halls.

An additional board sheathing put upon all the cupolas.

The lumber house, west of the barn, finished in October. Its western section to be a poultry house.

The stone viaduct for the main sewer, in the west meadow, was finished in November.

1875. New and improved elevators made, and their walls sheathed.

A large bath-room in the basement of the 3d halls, north, was made.

A room for storage made, on north side of centre attic.

Oliver Edwards lot and dwelling, adjoining the S. Day lot, and near the foot-path entrance, bought. It contained about 25 square rods. Deed executed June 2d.

Smith and Prindle lot bought, with dwelling. It adjoined the Edwards lot on the west, and contained 23r. Deed executed June 5th.

The west half of the Samuel Day homestead land bought; 5a. 66½r. Deed executed June 7th. This includes the sites of the brick-yard and saw-mill.

The four old steam boilers taken out, and replaced by three larger ones.

The south storeroom in centre attic was made.

A brick sewer, for surface water, down the hill southeast of the hospital, was made; length 436ft., including branch to north catch-basin.

A brick sewer for surface water was made down the hill southwest of the pump house; length 118ft.

The old water pipes from Mill River to the front portico, about 1,600ft., were taken up, and replaced by new ones.

The lean-to, adjoining the barn on the west, was erected.

A brick sewer for surface water, and opening into Mill River, was made across the Samuel Day lot and the Samuel Day homestead land; length about 570ft., calibre 2ft.

1876. A brick partition wall erected, from foundation to attic, between the bath-rooms and the small dormitories of the third halls south.

All the woodwork, including floors and joists, of the bath-rooms, lavatories, and water-closets of the three second halls, south, was taken out, and the rooms rebuilt.

The floor of the ironing-room was relaid.

Ground graded near the entrance of the foot-path, from the county road, and a row of elm and maple trees set from the main entrance to the Samuel Day house, near the bridge.

The Samuel Day homestead bought; 5a. 99r. Deed executed June 22d.

The largest barn on the Day homestead was taken down, and set up near the barn at the hospital.

A brick sewer for surface water was made down the hill east of the east grove; length 275ft., calibre 18 inches.

An iron fence erected from the entrance gate, along the line of the road, to the southeast corner of the S. Day homestead lot. The fountain in front of the house was set up, but not put in operation.

- 1877.** The Enos Clark pasture, adjoining the hospital farm on the west, was bought; 90a. 45r. Deed executed February 9th.

The walls of the engine-house were raised three feet, and a new slated roof put on. The old roof was flat and tinned.

The embankment around the fountain was finished, and the fountain put in operation.

The original brick front portico, which had tried to tumble down for several years, was taken down and replaced by one of brown-stone.

A part of the bank of Mill River, in the west meadow, was ripped.

An iron fence was erected from the entrance gate along the road to the southwest corner of the farm, at the boundary of the land of John H. Fowle.

The John H. Fowle lot aforesaid was bought; 10a. 21r. Deed executed December 15th.

- 1878.** Picket fence built across west boundary of farm, and along the county road, from the iron fence westward.

Ferris lot bought; 1½a., more or less. Deed executed April 4th.

An ice-house built at Mill River, a few feet north of the old one.

The stone wall of the north barnyard erected.

Hill and roadway graded on the south boundary of the Fowle lot, and the iron fence extended across part of the lot.

A concrete sidewalk laid from the entrance gate to the bridge at Mill River; and a similar walk from the entrance gate of the foot-path to the road at the top of the hill, on the front lawn.

A brick sewer for surface water put in on the south side of the county road, along the lower half of the hill. This sewer was extended to the top of the hill in 1879; calibre 2ft.

A brick sewer for surface water put in on the north side of the county road, from the main entrance nearly to the bottom of the hill; calibre 2ft.

The stonework of the bridge for a road into the west pasture, south of the paper mill, was built.

A severe freshet, on the 10th of December, carried away both ice-houses.

- 1879.** One ice-house rebuilt in January and filled.

Justin Thayer peat-land bought; about 42r. Deed executed April 5.

The E. E. Denniston peat-land bought; 2a., more or less. Deed executed June 18.

An iron fence erected on the south side of the county road, from the northwest corner of the Samuel Parsons lot to the foot of the hill. This required much grading of the adjoining bluff.

A row of elm trees set on the Parsons lot, near the iron fence.

A hurricane, on the 16th of July, blew down about fifty trees on the farm.

The brick horse-barn was extended ten feet northwardly, its walls raised three feet, and a new slated roof put on. The old roof was flat and tinned.

The W. B. Welton lot, adjoining the Parsons lot on the south, was bought; 5a. 17r. Deed executed October 6.

The knolls at the eastern boundary of the Parsons and Welton lots were graded, and about 500 cart-loads of clay taken from them was spread upon the garden.

A brick building, for a scullery and a storeroom for charcoal, was erected.

About three hundred feet of the river bank, in the west meadow, was rip-rapped.

1880. A wire screen was put upon the balustrade of the rotunda stairs in April.

Norway spruce trees set between the elms, on the south side of the hill down the road.

The western division of the main sewer, north of the barn, rebuilt with brick.

The stone bridge for the road into the Enos Clark pasture was extended about twenty-two feet westwardly.

In the autumn, the knolls on the eastern boundary of the Parsons lot were further graded, the road along that boundary relaid by the county commissioners, and the iron fence extended along the line of the road.

An ice-house, near the hospital, was erected.

1881. A fire-pump put into the engine-room, a subterranean reservoir constructed, hydrants placed in the centre building, and all the pipes necessary for the successful working of the pump were laid.

Two sections of the river bank in west meadow, an aggregate of four hundred and sixty-five feet, were rip-rapped.

A road was laid out from the north grove to the northeast part of the farm, near the ice-house at the pond on Mill River.

Concrete walks were laid to the barn and the horse-barn; also between the rear building and the west outside door of the north wing.

1882. A new road, more remote from the hospital than the old one, was made through the grove west and north of the building.

A road to the west meadow made near the pump-house.

Road graded west of the sand-pit, adjoining the Fowle lot.

Ansel Wright peat-land bought; 100r., more or less. Deed executed May 24.

Copper lightning-rods put upon the hospital and the barns.

A concrete sidewalk laid from the front door across the lawn.

An ice-pond made in the west (E. Clark) pasture.

A building erected over the reservoir at the pump-house.

1883. Telephone put in, in February.

The houses and lots of Hiram Day, Ellen M. Day, and S. C. Lacore were bought. Deeds executed February 2d. These lots are at the southeast corner of the farm, near the bridge.

The floor of the sewing-room was relaid.

The new road through the west and north grove was graded and finished.

The bowling alley was taken down, and an excavation for the cellar of a large building for workshops and storage was begun, in June. The excavation was continued, and more than one-half of the cellar wall built, when the work was necessarily suspended for the season.

One hundred feet of the eastern section of the main sewer, which was made of stone, and a part of which was under the site of the proposed building, was taken up, and replaced by a cylindrical one of brick.

A wood-house was made by an addition to the scullery and coal-house.

A high wind, on the 28th of December, blew down the chimney of the pump-house.

1884. A new chimney, 65 feet 4 inches in height, was built at the pump-house.

Granite gate-posts at the north barnyard set up in May.

A fire-proof building for oils, paints, etc., was built.

The Day barn was raised and extended westwardly, by an addition of 40 feet, and a cellar 120 feet long and 40 feet wide made beneath the whole. A poultry-house, connected with this barn, was also erected.

An addition of 40 feet was made to the cart-shed.

Work on the cellar for the new building, on the former site of the bowling alley, was resumed in May. The building was subsequently erected, and so far finished that the cellar and the first story were used for storage in October.

The ice-house at the pond on Mill River was taken down, and set up at the ice-pond in the west pasture.

1885. The Day pasture, on the Easthampton road, was bought; 23a. 21r. Deed executed June 13.

A small tract of land between the Clarke orchard and the county road was bought; 14r., more or less. Deed executed September 9.

One of the knolls directly east of the hospital was graded down, and 1,238 feet of brick culvert and heavy stone under-drain put in, on the flat northeast of it.

October 4. A tempest prostrated many valuable trees in the east grove and upon other parts of the premises.

Under a contract for an independent pipe from the main, a new route for the hospital's supply of water, by the way of Washington Avenue, was selected, and the pipe laid in September and October. Water taken by the new route, Oct. 20.

ACKNOWLEDGMENTS.

A very large majority of the exercises in the chapel on the evenings of secular days, are performed by the medical officers of the hospital; but we are indebted for contributions

thereto within the past year, — to Miss Longley and Miss Shattuck for two concerts; to Miss Radcliff for a lecture on the Methods of Instruction in the Institutions for the Blind; to Dr. T. W. Meekins for stereoptic exhibitions; to Mr. J. Pickard for an evening reading; and to Mr. Burnell for two lectures.

Aside from the collection of stereoptic “slides,” or pictures, belonging to Dr. Meekins, others have from time to time been purchased for the hospital, until it has accumulated more than fourteen hundred of them, illustrative of a wide range of subjects.

Acknowledgments are also due to Miss Florence Austin, for a quantity of illustrated and other newspapers, as well as for a Christmas box containing many presents for patients; to Mrs. S. S. Jocelyn, for illustrated newspapers and fancy articles for the female patients; to Miss C. E. Butterworth, for a collection of religious newspapers; to S. E. Bridgman, Esq., for newspapers; and to the publishers of the “Christian Register” and the “Staaten Zeitung,” for one copy each of those papers throughout the year.

CONCLUSION.

On the 30th of September, the last day of the official year, all the officers who began the year in the hospital were still at their posts. The only change in the staff in the meantime was the addition of one to their number. In pursuance of the law requiring a female physician in each of the State Lunatic Hospitals, Dr. Emily F. Wells was appointed as Assistant Physician in December, 1884. She entered upon the duties of the office on the 1st of January, 1885, and has performed them to my entire satisfaction.

In the staff of subordinate officers at the beginning of the year there has been but one change. Miss Mary Ward, who had been entrusted with the chief charge of the sewing department for many years, has recently resigned the office, and Miss Gertrude C. Arnold has been selected as her successor, but had not assumed the duties of the position at the end of the official year.

In submitting this, the last official communication which it will become my duty as well as my pleasure to present to

your honorable board, it is natural that a retrospective glance should be thrown over the comparatively long period during which this official relationship has existed between us, for the purpose of tracing the gradual growth of the institution committed to your care. At the beginning of that period it was still comparatively in its infancy. It is very far from my intention to follow its subsequent development. A sufficient history has been given, from year to year, in the annual reports. Suffice it here to say, that, in regard to the constant unfolding of the resources of the institution, and the continual additions to the means of rendering it a comfortable and curative residence for its inmates, as well as to that application of all those resources and means which is implied by the word "management," it would appear that neither you, as the directing body, nor the administrative officers whose duties include the oversight of all the details of the organization, can reasonably complain of the very general judgment of success which has been awarded by both the government and the people.

For myself it may be said that, in this review of the past, no recurring memory, and no suggestion of reflection, has impressed me more forcibly than this,—that I have been especially fortunate in my official relations; fortunate, not alone in the persons of the officials, but in the permanence of our association or connection. Looking first to the associate officers and the subordinate officers at the heads of departments, we find that Dr. Nims, first as assistant physician and subsequently as assistant superintendent, has been with me nearly seventeen years, and Dr. Pickard more than eight years. Dr. Hall's term exceeds three years, which, though not very long, is sufficient to have determined his qualifications for a longer one. Mr. Welton has held the office of clerk and general purchaser, nineteen years. Mr. Wright, the farmer from the opening of the hospital, remained in that position more than seventeen years after my appointment, and was succeeded by Mr. Mercier, the present incumbent, who had, at that time, been employed as second to Mr. Wright more than fourteen years. Mr. Morse was elected engineer in February, 1865, and has consequently held that office more than twenty years. Mr. Shufelt, an

attendant when I came, afterwards acted as supervisor over sixteen years, resigned in 1880, and was succeeded by Mr. Gallivan, who still holds the position and had previously been an attendant more than seven years. Miss Gilbert, first employed over three years as an attendant, has now been supervisor of the department for females sixteen years. The services of Mr. Rice, as steward and director of the kitchen, not only cover the whole period of my superintendence, but extend to a several years anterior date; and Miss Ward, who recently left, had been in charge of the sewing-room over thirteen years. Upon the faithfulness to duty and to the interests of the hospital of all these officials, it is not necessary here to enlarge. Their long continuance in office is, of itself, a more than sufficient encomium.

It will readily be perceived that, with a corps of such well-trained and efficient officers, acquainted with every ramification of detail in their respective duties, and ever ready to perform those duties promptly, it is comparatively easy to arrive at the results which constitute the beauty and the excellence of a public institution. Nor is it less manifest that, in this co-operation, they do much toward lifting the burden of care, anxiety, labor and responsibility from the superintendent.

Nor, on the other hand, have I been less favored in the individual constituents and in the permanency of membership of the Board of Trustees. The board was originally constituted in 1856, two years prior to the opening of the hospital. Between that time and the time of my appointment to the superintendency, in 1864, a period of only eight years, the changes of members were so frequent that ten new men had appeared upon it, and six of them, together with four of the five original members, had disappeared from it. During the nearly threefold longer period of twenty-one years intervening between that time and this, with the exception of the appointments under the recent law increasing the number on the board, only eight new members have been elected. Two of them have left by expiration of term, one died in office, and five still remain. There was one period of nine years, from 1866 to 1875, during which the board remained a unit, without a single change.

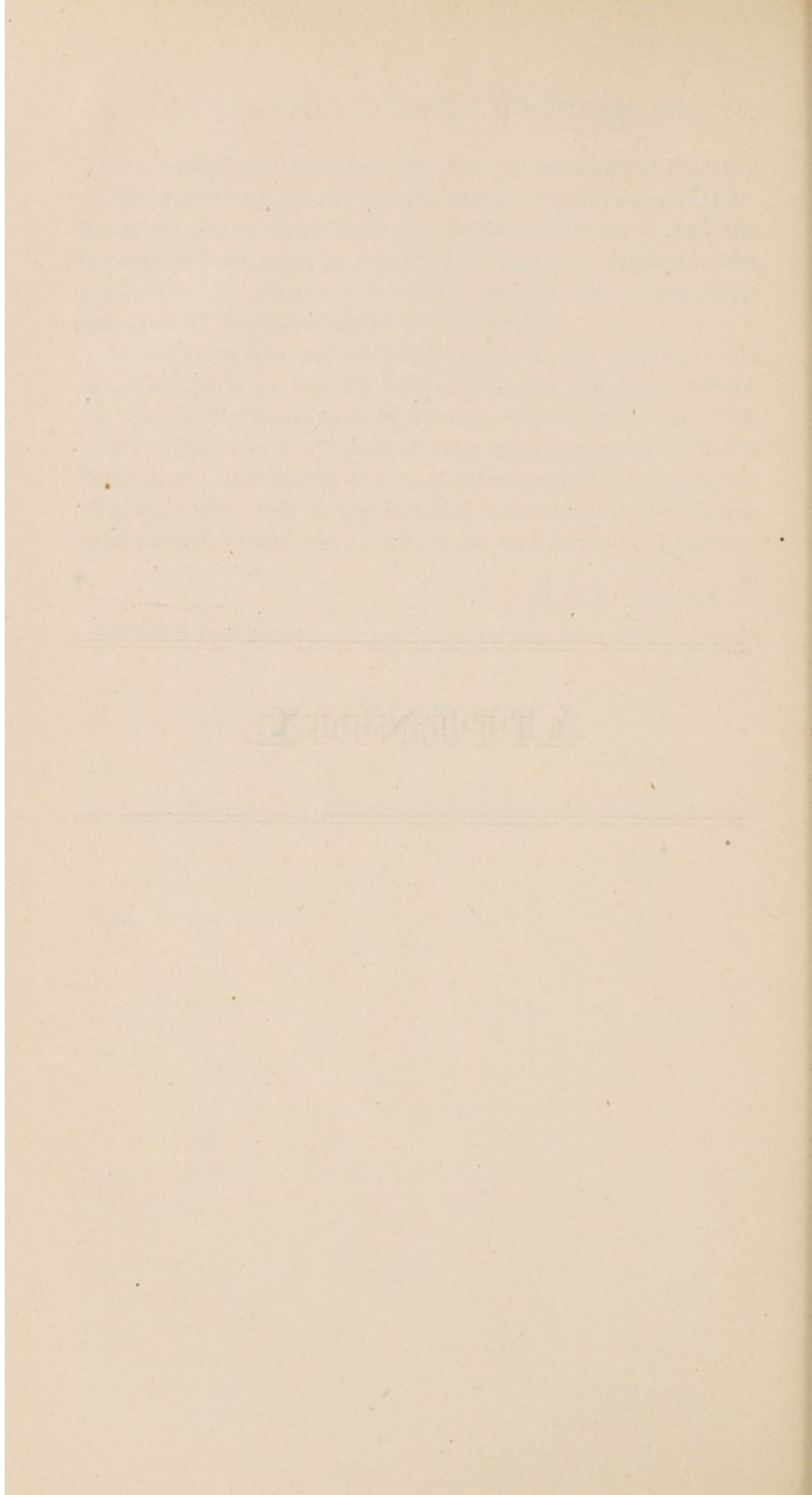
This continuity of membership, and the consequent stability of the governing board, and the mutual confidence and harmony of action which have ever existed between it and the superintendent, must be regarded as important factors in the production of whatever favorable results may have been achieved in the management of the hospital.

In severing the official relation which has so long and, upon my part, so happily existed between us, I carry with me the abiding sentiment of sincere respect and regard for every member of the board during my connection with the institution; and among the most prominent of all my agreeable memories, will be the fact that no unpleasant word has ever passed, either way, between me and any one of them.

PLINY EARLE.

OCTOBER 8, 1885.

APPENDIX.



2.* Monthly Admissions, Discharges and Averages.

MONTHS.	ADMISSIONS.			DISCHARGES (including deaths).			DAILY AVERAGE OF PATIENTS IN THE HOUSE.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
1884.									
October, . . .	4	6	10	6	8	14	229.9	233.16	463.06
November, . . .	4	7	11	3	3	6	227.13	233.9	461.03
December, . . .	3	8	11	6	2	8	224.42	238.61	463.03
1885.									
January, . . .	10	3	13	-	2	2	229.84	242.32	472.16
February, . . .	2	3	5	2	2	4	235.	243.53	478.53
March, . . .	9	6	15	6	5	11	236.68	243.55	480.23
April, . . .	7	8	15	4	4	8	239.73	246.53	486.26
May, . . .	7	9	16	11	13	24	237.87	245.51	483.38
June, . . .	5	4	9	5	5	10	235.7	243.1	478.8
July, . . .	5	8	13	9	5	14	236.13	246.26	482.39
August, . . .	4	5	9	3	5	8	234.55	248.06	482.61
September, . . .	6	3	9	5	9	14	235	245.2	480.2
Total of cases, . . .	66	70	136	60	63	123	-	-	-
of persons, . . .	63	67	130	59	62	121	-	-	-
Daily average for the year, . . .	-	-	-	-	-	-	233.47	242.47	†† 475.94

* For Table No. 1, see the beginning of the Superintendent's report.

† These totals were obtained by a division of the sums of daily residence for the year by 365, the number of days in the year.

† One man and one woman admitted, and one man and two women discharged, as *not insane*, are not included in the following tables.

3. Received on First and Subsequent Admissions.

NUMBER OF THE ADMISSION.	CASES ADMITTED.			TIMES PREVIOUSLY RECOVERED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	52	45	97	-	-	-
Second,	8	15	23	1	4	5
Third,	3	4	7	-	2	2
Fourth,	1	1	2	3	3	6
Fifth,	-	2	2	-	3	3
Twelfth,	1	-	1	4	-	4
Fifteenth,*	-	1	1	-	-	-
Sixteenth,*	-	1	1	-	11	11
Total of cases,	65	69	134	8	23	31
of persons,	62	66	128	3	9	12

* The fifteenth and sixteenth admissions were of the same *person*. Hence her previous recoveries are inserted only after the last admission.

4. *Ages of Persons Admitted for the First Time.*

AGES.	AT FIRST ATTACK OF INSANITY.			WHEN ADMITTED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital,	2	-	2	-	-	-
Fifteen years and less,	1	2	3	2	-	2
From 15 to 20 years,	4	4	8	2	5	7
20 to 25 years,	8	4	12	10	4	14
25 to 30 years,	13	9	22	14	6	20
30 to 35 years,	2	8	10	5	8	13
35 to 40 years,	6	2	8	4	6	10
40 to 50 years,	4	6	10	4	6	10
50 to 60 years,	5	3	8	7	5	12
60 to 70 years,	2	1	3	2	3	5
70 to 80 years,	-	-	-	1	-	1
Over 80 years,	-	-	-	-	2	2
Unknown,	5	6	11	1	-	1
Total of persons,	52	45	97	52	45	97

5. *Parentage of Persons Admitted.*

PLACES OF NATIVITY.	MALES.		FEMALES.		TOTALS.	
	Father.	Mother.	Father.	Mother.	Father.	Mother.
Maine,	-	-	1	1	1	1
New Hampshire,	2	1	-	-	2	1
Vermont,	-	1	1	2	1	3
Massachusetts,	18	17	17	17	35	34
Rhode Island,	1	-	-	1	1	1
Connecticut,	2	2	1	2	3	4
New York,	-	1	1	2	1	3
Pennsylvania,	-	-	1	1	1	1
Virginia,	-	-	1	-	1	-
Canada,	5	5	2	2	7	7
England,	4	4	1	3	5	7
Ireland,	22	22	32	28	54	50
Scotland,	-	1	1	1	1	2
France,	1	1	-	-	1	1
Germany,	1	1	1	1	2	2
Hungary,	-	-	1	-	1	-
Bohemia,	1	1	-	1	1	2
Switzerland,	1	1	-	-	1	1
Sweden,	-	-	1	1	1	1
Unknown,	4	4	4	3	8	7
Total of persons,	62	62	66	66	128	128

6. *Residence of Persons Admitted.*

PLACES.	Males.	Females.	Totals.
Hampshire County,	15	16	31
Hampden County,	24	28	52
Berkshire County,	12	14	26
Franklin County,	10	7	17
Worcester County,	—	1	1
Suffolk County,	1	—	1
Total of persons,	62	66	128
Cities or large towns,*	27	27	54
Country districts,	35	39	74
Total of persons,	62	66	128

* Containing not less than 10,000 inhabitants.

7. *Civil Condition of Persons Admitted.*

NUMBER OF THE ADMISSION.	UNMARRIED.			MARRIED.			WIDOWED.			DIVORCED.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
First,	31	23	54	19	17	36	2	4	6	—	1	1
Second,	5	4	9	1	2	3	—	7	7	—	—	—
Third,	1	2	3	1	2	3	—	—	—	—	—	—
Fourth,	—	1	1	1	—	1	—	—	—	—	—	—
Fifth,	—	—	—	—	1	1	—	1	1	—	—	—
Twelfth,	1	—	1	—	—	—	—	—	—	—	—	—
Sixteenth,	—	1	1	—	—	—	—	—	—	—	—	—
Total of persons,	38	31	69	22	22	44	2	12	14	—	1	1

8. *Occupations of Persons Admitted.*

OCCUPATIONS.	Males.	OCCUPATIONS.	Females.
Student,	4	Teacher,	1
Commercial traveller, .	1	Copyist,	1
Telegraph operator, . .	1	Housekeeper,	5
Druggist and chemist, .	1	Seamstress,	1
Watchmaker,	1	Merchant's wife,	1
Paper maker,	2	Farmer's wife,	1
Farmer,	8	Machinist's wife,	1
Wallet maker,	1	Mechanic's wife,	1
Cigar maker,	2	Engineer's wife,	1
Mechanic,	2	Moulder's wife,	1
Machinist,	2	Stonecutter's wife,	1
Armorer,	1	Slater's wife,	1
Carpenter,	3	Carpenter's wife,	2
Livery-stable keeper, . .	1	Shoemaker's wife,	1
Steel polisher,	1	Railroad employee's wife,	1
Metal worker,	1	Laborer's wife,	8
Section foreman on railroad,	1	Tailor's wife,	1
Baker,	1	Armorer's daughter, . . .	1
Mill operative,	6	Carpenter's daughter, . .	1
Laborer,	15	Paper maker,	3
Peddler,	1	Box maker,	1
None,	6	Mill operative,	8
Total of <i>persons</i> , . . .	62	Peddler,	1
		Servant,	10
		Unknown,	1
		None,	11
		Total of <i>persons</i> , . . .	66

9. *Reported Duration of Insanity before Last Admission.*

PREVIOUS DURATION.	FIRST ADMISSION TO THIS HOSPITAL.			ALL OTHER ADMISSIONS.*			TOTALS.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
Congenital,	2	—	2	—	—	—	2	—	2
Under 1 month,	4	6	10	—	—	—	4	6	10
From 1 to 3 months,	10	4	14	—	—	—	10	4	14
3 to 6 months,	7	7	14	—	—	—	7	7	14
6 to 12 months,	11	4	15	—	1	1	11	5	16
1 to 2 years,	3	5	8	—	—	—	3	5	8
2 to 5 years,	6	6	12	3	8	11	9	14	23
5 to 10 years,	4	2	6	1	7	8	5	9	14
10 to 20 years,	1	3	4	3	3	6	4	6	10
Over 20 years,	—	2	2	3	3	6	3	5	8
Unknown,	4	6	10	3	2	5	7	8	15
Total of cases,	52	45	97	13	24	37	65	69	134
of persons,	52	45	97	12	22	34	62	66	128
Average of known cases,	14 $\frac{2}{50}$	4 $\frac{2}{5}$	3 $\frac{3}{50}$	13 $\frac{1}{20}$	10 $\frac{39}{88}$	11 $\frac{1}{4}$	3 $\frac{22}{25}$	6 $\frac{39}{33}$	4 $\frac{33}{25}$

* In this division of the table the whole period of time, from the first attack to the last admission, is indicated. Two patients are included who are in the first division, they having been admitted for the first and the second time within the year. Three other patients are *repeated*, as they were received twice each, on admissions subsequent to the first. As the united duration of their disease was *fifty-three years*, the repetition, or duplication of it, although called for by the circumstances, unjustly swells the average duration, and consequently, in my opinion, very materially impairs the value of the table. The congenitals are not included. — P. E.

10. *Form of Disease in the Cases Admitted.*

FORM OF DISEASE.	Males.	Females.	Totals.
Mania,	38	50	88
epileptic,	2	2	4
paretic,	2	1	3
Melancholia,	8	11	19
Dementia,	10	4	14
epileptic,	2	1	3
paretic,	1	—	1
senile,	1	—	1
Congenital idiocy,	1	—	1
Total of cases,	65	69	134
of persons,	62	66	128

11. *Probable Causes of Insanity in Persons Admitted.*

CAUSES.	Males.	Females.	Totals.
<i>Physical.</i>			
Ill-health,	3	7	10
Epilepsy,	3	3	6
Intemperance,	5	—	5
Overwork,	3	1	4
Hereditary,	2	2	4
Masturbation,	3	—	3
Injury of head,	2	1	3
Sunstroke,	2	—	2
Puerperal,	—	2	2
Change of life,	—	1	1
Overwork and trouble,	1	—	1
Overwork and use of narcotics,	1	—	1
Mountain fever,	1	—	1
Malaria,	1	—	1
Syphilis,	1	—	1
Paresis,	—	1	1
Spinal disease,	—	1	1
Total of physical,	28	19	47
<i>Mental.</i>			
Business trouble,	1	—	1
Domestic trouble,	1	1	2
Religious excitement,	—	3	3
Fright,	—	1	1
Total of mental,	2	5	7
Total of physical,	28	19	47
Unknown,	32	42	74
Total of persons,	62	66	128

12. *Relation to Hospitals of Persons Admitted.*

HOSPITAL RELATIONS.	Males.	Females.	Totals.
Never before in any hospital,	49	41	90
Former inmates of this hospital,	8	21	29
Former inmates of other hospitals in this State,	1	2	3
Former inmates of this hospital and of other hospitals in this State,	—	1	1
Former inmates of hospitals in other States, . . .	—	—	—
Former inmates of this hospital and of hospitals in other States,	4	—	4
Former inmates of other hospitals in this State and of hospitals in other States,	—	1	1
Total of persons,	62	66	128

13. Discharges Classified by Admission and Result.

ADMISSION.	RECOVERED.			MUCH IMPROVED.			IMPROVED.			UNIMPROVED.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	14	11	25	2	3	5	10	13	23	6	10	16	15	10	25	47	47	94
Second,	2	1	3	1	-	1	1	4	5	2	3	5	1	1	2	7	9	16
Third,	1	-	1	1	-	1	1	-	1	1	1	2	-	-	-	4	1	5
Fourth,	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Fifth,	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1
Eighth,	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1
Twelfth,	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1
Fifteenth,	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Total of cases,	17	12	29	4	5	9	13	17	30	9	16	25	16	11	27	59	61	120
of persons,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	60	118

14. *How Supported.*

SUPPORTED AS —	PATIENTS ADMITTED.			WEEKLY AVERAGE OF THE YEAR.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
State patients, . .	21	22	43	82.29	72.15	154.44
Town patients, . .	36	38	74	118.48	143.10	261.58
Private patients, . .	9	10	19	32.62	27.20	59.82
Total of cases, . .	66	70	136	233.39	242.45	475.84*

* This weekly average is one-tenth of one less than the daily average, 475.94.

15. *Cases Discharged Recovered — Duration.*

PERIOD.	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION FROM THE ATTACK.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
Under 1 month, . .	3	2	5	—	—	—	—	—	—
From 1 to 3 months, .	5	3	8	10	3	13	2	—	2
3 to 6 months, .	1	4	5	3	3	6	4	3	7
6 to 12 months, .	6	—	6	2	3	5	2	1	3
1 to 2 years, . .	—	2	2	2	2	4	6	4	10
2 to 5 years, . .	1	—	1	—	—	—	1	2	3
5 to 10 years, . .	—	—	—	—	—	—	1	—	1
10 to 20 years, . .	—	—	—	—	1	1	—	1	1
Over 20 years, . .	—	—	—	—	—	—	—	—	—
Unknown,	1	1	2	—	—	—	1	1	2
Total of cases, . .	17	12	29	17	12	29	17	12	29
Total of persons, . .	17	12	29	17	12	29	17	12	29
Average of known cases (in months), .	8 $\frac{1}{2}$	5 $\frac{2}{5}$	7 $\frac{12}{27}$	5 $\frac{1}{17}$	10 $\frac{1}{12}$	11 $\frac{8}{29}$	13 $\frac{3}{8}$	27 $\frac{7}{11}$	19 $\frac{5}{27}$

16. Cases Resulting in Death — Duration.

PERIOD.	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION FROM THE ATTACK.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital,	1	-	1	1	-	1	1	-	1
Under 1 month,	-	-	-	1	1	2	-	-	-
From 1 to 3 months,	1	2	3	1	-	1	-	1	1
3 to 6 months,	1	1	2	-	-	-	1	-	1
6 to 12 months,	2	1	3	-	-	-	-	-	-
1 to 2 years,	2	-	2	3	1	4	1	-	1
2 to 5 years,	1	1	2	1	2	3	1	1	2
5 to 10 years,	4	3	7	2	1	3	3	3	6
10 to 20 years,	1	2	3	5	3	8	3	2	5
Over 20 years,	1	-	1	2	3	5	4	4	8
Unknown,	2	1	3	-	-	-	2	-	2
Totals,	16	11	27	16	11	27	16	11	27
Average of known cases (in months),	84 $\frac{4}{13}$	76	80 $\frac{1}{2}$	112 $\frac{4}{5}$	146 $\frac{5}{11}$	126 $\frac{1}{3}$	185 $\frac{8}{13}$	203 $\frac{7}{11}$	202 $\frac{8}{23}$

17. *Cases Discharged by Recovery or Death.*

FORM OF INSANITY.	RECOVERIES.			DEATHS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Mania,	14	9	23	9	5	14
epileptic,	—	—	—	2	—	2
Melancholia,	3	3	6	—	1	1
Dementia,	—	—	—	5	5	10
Totals,	17	12	29	16	11	27

18. *Causes of Death.*

CAUSES.	Males.	Females.	Totals.
Nervous system,—			
Apoplexy,	2	—	2
Organic disease of the brain,	2	2	4
Respiratory,—			
Phthisis,	4	2	6
Pneumonia,	5	1	6
Digestive,—			
Disease of the liver,	—	1	1
Zymotic,—			
Typho-malarial fever,	1	—	1
Erysipelas,	—	1	1
Developmental,—			
Senile debility,	—	2	2
Ascites from debility,	—	1	1
Syphilis,	1	—	1
Accidental,—			
Suicide,	—	1	1
Railroad accident,	1	—	1
Totals,	16	11	27

19. Deaths, Classified by Results of Previous Admissions.

NUMBER OF THE ADMIS- SION.	RECOVERED.			MUCH IMPROVED.			IMPROVED.			UNIMPROVED.			TOTALS.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.
Second, . . .	-	1	1	-	-	-	-	-	-	1	-	1	1	1
Totals, . . .	-	1	1	-	-	-	-	-	-	1	-	1	1	1

20. Recoveries Classified by Results of Previous Admissions.*

NUMBER OF THE ADMIS- SION.	RECOVERED.			MUCH IMPROVED.			IMPROVED.			UNIMPROVED.			TOTALS.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.
Second, . . .	1	1	2	1	-	1	-	-	-	-	-	-	2	1
Third, . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-
Totals, . . .	2	1	3	1	-	1	-	-	-	-	-	-	3	1

* In all cases of more than one admission, the classification is based upon the result of the admission next preceding the last, in each case respectively.

21. *Deaths Classified by Duration of Insanity and of Treatment.*

PERIOD.	DURATION OF INSANITY. ("FROM FIRST ATTACK.")			WHOLE KNOWN PERIOD OF HOSPITAL RESIDENCE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital.	1	—	1	1	—	1
Under 1 month,	—	—	—	1	1	2
From 1 to 3 months, . .	—	1	1	1	—	1
3 to 6 months,	1	—	1	—	—	—
6 to 12 months,	—	—	—	—	—	—
1 to 2 years,	1	—	1	3	1	4
2 to 5 years,	1	—	1	1	—	1
5 to 10 years,	2	2	4	3	2	5
10 to 20 years,	3	1	4	4	4	8
Over 20 years,	4	5	9	2	3	5
Unknown,	3	2	5	—	—	—
Totals,	16	11	27	16	11	27
Average of known cases (in months),	195 $\frac{11}{12}$	267 $\frac{4}{9}$	226 $\frac{4}{7}$	112 $\frac{4}{15}$	160 $\frac{2}{11}$	132 $\frac{7}{13}$

22. *Ages of those who Died.*

AGES.	AT TIME OF FIRST ATTACK.			AT TIME OF DEATH.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Fifteen years and less, . .	2	—	2	—	—	—
From 15 to 20 years, . . .	—	2	2	—	—	—
20 to 25 years,	3	2	5	—	—	—
25 to 30 years,	2	—	2	1	—	1
30 to 35 years,	1	—	1	3	1	4
35 to 40 years,	2	1	3	2	—	2
40 to 50 years,	1	—	1	2	1	3
50 to 60 years,	1	3	4	2	2	4
60 to 70 years,	1	1	2	2	3	5
70 to 80 years,	—	—	—	2	3	5
Over 80 years,	—	—	—	—	1	1
Unknown,	3	2	5	2	—	2
Totals,	16	11	27	16	11	27

23. *Annual Admissions since the Opening of the Hospital, with the Discharges and Deaths within the Official Year, and the Number of each Year's Admissions remaining Sept. 30, 1885.*

NEW CASES (FIRST ADMISSION).																		
YEARS.	ADMITTED.			DISCHARGED AND DIED IN 1884-85.														
	Males.	Females.	Totals.	RECOVERED.			MUCH IMPROVED.			IMPROVED.			UNIMPROVED.			DIED.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1858, 2 months,	99	129	228															4
1858-59,	42	46	88															2
1859-60,	66	91	157															1
1860-61,	58	46	104															1
1861-62,	51	43	94															1
1862-63,	56	57	113															1
1863-64,	35	30	65															1
1864-65,	54	55	109															1
1865-66,	66	52	118															1
1866-67,	42	69	111															1
1867-68,	54	71	125															1
1868-69,	72	64	136															1
1869-70,	80	103	183															1
1870-71,	93	88	181															2
1871-72,	83	85	168		1	1												1
1872-73,	89	69	158															1

[illegible]

25. *Classed Average of Patients.*

OFFICIAL YEAR.	State Patients.	Town Patients.	Private Patients.	Totals.
<i>Monthly Average.</i>				
1864-65,	225.10	48.16	69.83	343.25
1865-66,	252.16	50.58	75.58	378.33
<i>Weekly Average.</i>				
1866-67,	261.96	49.46	89.75	401.17
1867-68,	262.65	47.92	103.06	413.63
1868-69,	248.52	54.98	101.46	404.96
1869-70,	236.19	65.04	107.23	408.46
1870-71,	234.10	77.07	118.38	429.55
1871-72,	226.96	89.57	112.27	428.80
1872-73,	248.02	99.23	90.00	437.25
1873-74,	284.48	102.88	82.06	469.42
1874-75,	274.35	128.34	72.46	475.15
1875-76,	259.19	146.02	68.94	474.15
1876-77,	254.84	161.58	60.02	476.44
1877-78,	211.90	175.71	54.75	442.36
1878-79,	200.34	182.29	54.23	436.86
1879-80,	197.03	198.01	55.46	450.50
1880-81,	180.82	214.15	57.19	452.15
1881-82,	166.84	238.25	56.52	461.61
1882-83,	161.62	247.63	57.58	466.83
1883-84,	155.10	251.23	56.06	462.39
1884-85,	154.44	261.58	59.82	475.84

26. *Monthly Consumption of Gas.*

MONTHS.	Cubic feet.	Daily Average.
1884.		
October,	42,700	1,377.42
November,	49,200	1,640.
December,	49,650	1,601.61
1885.		
January,	47,700	1,538.71
February,	38,450	1,373.21
March,	37,200	1,200.
April,	26,800	893.33
May,	17,950	579.03
June,	13,950	465.
July,	13,200	426.12
August,	19,650	633.87
September,	28,200	740.
Total,	384,650	1,054.11*

* Daily average for the year.

27. Supplies for the Several Departments for the Year 1884-85.

	Sheets.	Pillow-cases.	Bed-spreads.	Blankets.	Rubber Sheets.	Bed-ticks.	Pillow-ticks.	Towels.	Curtains.	Wash-bowls.	Ewers.	Chamber.	Mirrors.	Hair Brushes.	Combs.	Carpet Strips.	Plates.	Cups.	Saucers.	Tumblers.	Mugs.	Bowls.	Pitchers.	Syrup Cups.	Knives.	Forks.	Lanterns.
<i>Men's Department.</i>																											
Upper 1st Hall,	36	24	4	3	2	1	1	12	2	1	1	1	1	1	1	1	1	1	24	24	24	16	1	3	3	3	1
2d Hall,	18	30	11	16	2	2	15	10	6	2	1	15	1	2	1	11	18	6	6	18	18	16	7	1	1	1	1
3d and 4th Halls,	36	30	6	8	2	3	7	14	6	1	1	7	1	1	3	3	3	21	27	27	2	2	2	3	1	1	1
Middle 1st Hall,	48	18	6	14	2	4	16	18	4	1	1	16	1	1	7	2	18	3	3	15	1	28	3	1	1	1	1
2d Hall,	42	42	1	20	1	4	6	1	2	1	1	6	1	1	6	1	6	18	3	18	1	18	2	4	1	1	1
3d and 4th Halls,	12	12	1	1	1	4	9	1	2	1	1	6	1	1	4	1	12	10	6	6	3	3	1	1	1	1	1
Lower 1st Hall,	38	14	2	1	6	6	21	4	1	1	1	9	1	2	5	3	12	3	1	10	3	3	1	1	1	1	1
2d Hall,	48	24	2	16	1	2	1	30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3d and 4th Halls,	28	24	2	16	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Women's Department.</i>																											
Upper 1st Hall,	12	36	6	18	2	3	6	12	6	1	2	1	1	1	1	1	6	54	6	6	12	6	1	1	1	1	1
2d Hall,	12	32	6	6	2	5	12	58	6	3	3	12	1	1	14	3	18	18	18	48	36	9	1	1	1	1	1
3d Hall,	36	12	6	8	2	3	6	22	3	1	1	12	1	1	11	1	18	18	30	12	12	1	2	1	1	1	1
4th Hall,	12	4	10	7	1	6	18	12	7	1	1	18	1	1	13	1	18	18	18	12	12	1	2	1	1	1	1
Middle 1st Hall,	24	26	12	14	1	8	6	18	11	1	2	24	1	1	6	6	1	6	6	24	6	18	4	1	1	1	1
2d Hall,	12	30	8	12	5	2	6	18	4	1	1	12	1	1	17	1	12	12	12	12	6	1	1	1	1	1	1
3d Hall,	12	12	6	2	6	1	3	16	4	1	1	12	1	1	14	1	12	12	12	12	1	24	1	1	1	1	1
4th Hall,	24	12	6	2	6	1	6	4	5	1	1	6	1	1	15	1	12	12	6	6	12	1	2	2	1	1	1
Lower 1st Hall,	24	28	1	12	6	16	12	24	1	1	1	12	1	1	33	1	1	1	1	1	1	6	1	1	1	1	1
2d Hall,	24	24	1	12	2	1	12	12	1	1	1	12	1	1	19	1	1	1	1	1	1	6	1	1	1	1	1
3d Hall,	24	24	1	1	2	1	3	12	1	1	1	12	1	1	3	1	225	42	30	60	1	24	4	1	22	2	1
4th Hall,	11	6	1	1	1	1	1	8	1	1	2	1	1	1	1	2	6	42	30	60	1	24	4	1	22	2	1
Kitchen,	4	16	2	1	1	1	1	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rear,	11	6	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Centre,	4	16	2	1	1	1	1	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aggregate,	477	444	76	156	35	64	45	355	57	14	11	192	3	9	190	35	354	177	298	202	92	78	42	4	28	12	9

27. *Supplies for the Several Departments for the Year 1884-85. — Concluded.*

	Spoons.	Glass Casters.	Table-spreads.	Napkins.	Tin Plates.	Tin Cups.	Iron Spoons.	Dish-towels.	Rollers.	Wash-basins.	Soap, pounds.	Brooms.	Whisks.	Dust-brushes.	Scrub-brushes.	Dust-pans.	Mops.	Pails.	Spittoons.	Blacking.	Shoe-brushes.	Spools Thread.	Papers Needles.	Papers Pins.	Rubber Chambers
<i>Men's Department.</i>																									
Upper 1st Hall, . . .	6	-	3	12	-	-	6	6	-	-	42	11	5	2	3	1	1	1	1	9	1	4	1	1	1
2d Hall, . . .	-	-	-	-	-	-	6	6	6	-	42	16	1	1	2	1	2	3	1	6	1	-	-	1	1
3d and 4th Halls, . .	-	1	-	-	-	-	9	18	-	-	68	15	2	1	1	1	3	3	3	12	1	-	-	1	1
Middle 1st Hall, . . .	-	2	-	-	-	3	6	6	12	1	58	18	1	1	2	1	6	5	6	8	1	-	-	1	1
2d Hall, . . .	-	-	-	-	-	-	6	24	6	1	50	28	3	1	2	1	6	6	2	17	2	-	-	1	1
3d and 4th Halls, . .	-	-	-	-	-	-	-	-	6	-	14	13	2	1	1	-	1	2	1	6	2	-	-	1	1
Lower 1st Hall, . . .	-	-	-	-	-	-	2	24	30	-	54	22	2	2	2	-	1	2	2	8	2	4	-	1	1
2d Hall, . . .	-	-	-	-	-	-	6	18	6	1	88	25	3	1	1	-	1	3	-	17	2	-	-	1	1
3d and 4th Halls, . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Women's Department.</i>																									
Upper 1st Hall, . . .	-	-	2	12	-	-	12	-	-	-	34	7	-	1	1	1	2	3	3	-	-	-	-	2	2
2d Hall, . . .	-	-	2	-	-	-	12	12	6	1	52	23	3	1	1	-	2	5	5	-	-	16	-	11	8
3d Hall, . . .	-	2	-	-	-	6	12	-	6	-	46	14	1	1	-	-	2	1	4	-	-	16	2	9	
4th Hall, . . .	-	-	7	-	-	-	24	-	6	-	46	8	-	4	-	-	1	4	1	-	-	5	1	4	
Middle 1st Hall, . . .	-	4	2	-	-	-	18	6	-	-	38	24	-	1	1	-	1	1	1	-	-	10	7	11	
2d Hall, . . .	-	-	-	-	6	12	24	-	-	-	54	15	-	1	1	-	3	1	-	-	-	26	1	4	
3d Hall, . . .	-	-	-	-	-	6	12	18	-	-	42	10	-	2	1	-	3	1	-	-	-	13	1	3	
4th Hall, . . .	-	-	-	-	-	3	12	18	-	1	64	20	-	1	-	-	1	-	3	-	-	13	2	5	
Lower 1st Hall, . . .	-	1	3	-	-	6	24	-	-	-	98	24	1	2	-	2	-	3	-	-	-	44	5	24	
2d Hall, . . .	-	-	-	-	-	-	12	-	-	-	50	9	-	-	-	-	-	1	1	-	-	24	6	8	
3d Hall, . . .	-	2	-	-	-	-	-	-	-	-	16	5	-	-	-	-	-	1	-	-	-	17	1	4	
4th Hall, . . .	12	-	2	15	-	-	-	-	-	-	37	56	-	1	1	-	-	3	-	-	-	-	-	-	-
Kitchen, . . .	-	-	3	-	-	-	-	18	24	-	157	96	8	3	1	-	2	7	-	-	-	-	-	8	
Rear, . . .	-	-	-	-	-	1	-	24	3	-	45	6	4	1	1	1	-	-	-	2	-	-	-	-	
Centre, . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aggregate, . . .	18	12	24	39	6	61	191	210	105	4	1,303	506	35	30	22	6	38	51	14	103	11	212	30	103	14

28. *Days' Work by Patients.*

MONTHS.	FARM.	KITCHEN.			SEWING- ROOM.	LAUNDRY.		
	Men.	Men.	Women.	Totals.	Women.	Men.	Women.	Totals.
1884.								
October, .	862	124	248	372	169	54	402	456
November, .	677	150	245	395	188	49	340	389
December, .	614	155	218	373	184	40	404	444
1885.								
January, .	510	155	230	385	176	30	388	418
February, .	506	140	203	343	174	24	349	373
March, .	525	155	211	366	193	25	365	390
April, .	593	150	221	371	149	41	359	400
May, .	710	155	244	399	163	52	322	374
June, .	872	150	237	387	153	52	360	412
July, .	868	155	244	399	262	54	394	448
August, .	754	155	243	398	233	52	332	384
September, .	858	150	221	371	236	52	352	404
Totals, .	8,349	1,794	2,765	4,559	2,280	525	4,367	4,892

The patients whose work is recorded in this table, were employed as many hours in the day as were the employees in each of the several departments, respectively. The total number of days' work is 20,080, to which may be added 775 days, by men, in the mattress room, making an aggregate of 20,855 days. The number is larger than in any former year, with two exceptions.

No record was kept of the time of work on the ornamental grounds, at the stable, in the bakery, the boiler room, and the carpenter's shop. A large amount of other work is done, both in the halls, and, at irregular times, out of them.

29. List of Articles made in the Sewing-Room.

Dresses,	208	Mattress-ticks,	43
Waists,	18	Pillow-ticks,	64
Chemises,	257	Bed-spreads hemmed,	75
Drawers,	104	Curtains,	69
Skirts,	107	Handkerchiefs hemmed,	65
Sacques,	8	Napkins hemmed,	50
Night-dresses,	15	Table-cloths,	22
Shirts,	341	Dish-towels,	343
Suspenders, pairs,	164	Dish-towels hemmed,	47
Collars,	123	Roller-towels,	157
Aprons,	225	Carpets made,	2
Camisoles,	11	Carpet-strips hemmed,	61
Sheets,	419	Clothes bags,	31
Pillow-cases,	530	Pants,	2
Bolster-cases,	24	Articles repaired,	24,235

30. Upholstery done in the Year.

Hair mattresses made, new materials,	23
Hair mattresses made, new ticks,	35
Hair mattresses overhauled, hair repicked,	116
New husk underbeds made, new materials,	23
Old underbed ticks filled with new husks,	127
Hair pillows made, new materials,	15
Old pillow-ticks filled with new hair,	20
Hair pillows overhauled, hair repicked,	47

31. Annual Cost of Gas.

YEAR.	Cost of Gas.	Average Number of Patients.	Cost per Patient.
1860-61,	\$2,030 39	314.26	\$6 46
1861-62,	2,085 29	313.80	6 64
1862-63,	2,109 02	355.63	5 93
1863-64,	2,069 79	357.63	5 78
1864-65,	1,653 05	342.40	4 82
1865-66,	1,107 98	376.35	2 94
1866-67,	1,056 16	401.03	2 63
1867-68,	1,022 51	413.41	2 47
1868-69,	903 92	405.10	2 23
1869-70,	915 30	408.83	2 23
1870-71,	1,043 99	421.90	2 47
1871-72,	980 94	428.72	2 28
1872-73,	1,006 61	437.23	2 30
1873-74,	1,066 74	469.54	2 27
1874-75,	1,012 63	475.35	2 13
1875-76,	1,089 82	474.21	2 29
1876-77,	1,033 59	476.16	2 17
1877-78,	1,066 02	442.43	2 41
1878-79,	1,033 05	436.73	2 37
1879-80,	945 00	450.51	2 10
1880-81,	949 65	451.79	2 10
1881-82,	919 13	461.66	2 00
1882-83,	992 10	466.76	2 10
1883-84,	1,031 55	463.05	2 23
1884-85,	951 49	475.94	1 99

The hospital has always been supplied with gas by the Northampton Gas Light Company. Until April 1, 1879, the price was \$3.25 per thousand cubic feet, with an additional charge for meter-rent. From that date to July 1, 1884, it was \$3, including meter-rent, with a discount of five per cent. during the last four years of the period; and since the date last mentioned it has been \$2.50, without discount.

32. *Trustees of the Northampton Lunatic Hospital.*

NAMES.	Residence.	When app'ted.	Service ended.	From what cause.
Charles E. Forbes,*	Northampton,	1856	1857	Term expired.
Lucien C. Boynton,	Uxbridge,	1856	1858	" "
Eliphalet Trask,	Springfield,	1856	1875	" "
John C. Russell,*	Great Barrington,	1856	1859	Resigned.
Horace Lyman,	Greenfield,	1856	1857	Removed.
Charles Smith,	Northampton,	1857	1860	Resigned.
Luther V. Bell,*	Somerville,	1857	1859	"
Zebina L. Raymond,*	Greenfield,	1858	1859	"
Franklin Ripley,*	Greenfield,	1859	1860	Died in office.
Edward Dickinson *	Amherst,	1859	1864	Resigned.
Walter Laffin,*	Pittsfield,	1859	1866	Term expired.
Silas M. Smith,	Northampton,	1860	1863	" "
Charles Allen,	Greenfield,	1860	1861	Resigned.
Alfred R. Field,*	Greenfield,	1861	1864	"
Edward Hitchcock,	Amherst,	1863	1879	"
Silas M. Smith,	Northampton,	1864	-	Still in office.
Edmund H. Sawyer,*	Easthampton,	1864	1879	Died in office.
Henry L. Sabin,*	Williamstown,	1866	1876	Term expired.
Adams C. Deane,	Greenfield,	1875	-	Still in office.
Henry W. Taft,	Pittsfield,	1876	-	" "
William M. Gaylord,	Northampton,	1879	1883	Term expired.
Lyman D. James,	Williamsburg,	1879	-	Still in office.
Christop'r C. Merritt,	Springfield,	1883	-	" "
Sarah A. Woodworth,	Chicopee,	1884	-	" "
Sarah M. Butler,	Northampton,	1884	-	" "

* Deceased.

33. *Superintendents and Treasurers.*

SUPERINTENDENTS.

William H. Prince, M. D., from Oct. 1, 1857, to April 1, 1864.

Pliny Earle, A. M., M. D., from July 2, 1864, to Oct. 1, 1885.

Edward B. Nims, M. D., from Oct. 1, 1885.

TREASURERS.

Eliphalet Trask, from July 4, 1856, to Aug. 14, 1860.

William H. Prince, from Aug. 14, 1860, to Feb. 26, 1864.

Silas M. Smith, from March 3, 1864, to Oct. 2, 1868.

Pliny Earle, from Oct. 2, 1868, to Oct. 1, 1885.

Edward B. Nims, from Oct. 1, 1885.

34. *Officers and Employees.*

Time employed, March 1, 1885.

NAMES.	Years.	Months.	Days.
Pliny Earle, M. D., Superintendent,	20	7	26
Edward B. Nims, M. D., Assistant Superintendent,	16	2	14
Daniel Pickard, M. D., 1st Assistant Physician,	7	10	22
David G. Hall, M. D., 2d Assistant Physician,	2	8	13
Emily F. Wells, M. D., 3d Assistant Physician,	—	2	—
Walter B. Welton, Clerk,	19	—	14
John Mercier, Farmer,	17	8	—
Danford Morse, Engineer,	20	—	7
Robert H. Gallivan, Supervisor,	11	10	11
Lucy A. Gilbert, Supervisor,	18	—	18
F. Josephus Rice, Steward,	26	4	24
Mary Ward, Seamstress,	14	6	3
George B. Walker, Baker,	—	8	20
Frances C. Earle, Assistant Clerk,	12	11	6
Minnie J. Guilfoil, Assistant Supervisor,	6	5	24
Gertrude C. Arnold, Assistant Seamstress,	1	5	—
Ida D. Hyde, Laundress,	—	9	4
Julia A. Pratt, Assistant Laundress,	—	11	15
Henry W. Estey, Attendant,	2	11	5
William J. Douglass, Attendant,	2	11	3
John L. Howard, Attendant,	2	8	23
Walter W. Burnham, Attendant,	1	4	29
John S. Powers, Attendant,	—	11	—
Robert Carter, Attendant,	—	10	24
Joshua F. King, Attendant,	—	7	23
Thomas P. Clair, Attendant,	—	5	8
Arthur Day, Attendant,	—	4	17
Herbert E. Phinney, Attendant,	—	4	2
John Curtis, Attendant,	—	4	2
Michael J. Flynn, Attendant,	—	1	29
James M. Shipperly, Attendant,	—	1	3
Maria E. Graves, Attendant,	17	1	7
Jane McGuire, Attendant,	9	10	3
Cécile Riel, Attendant,	8	4	23
Frances F. Poor, Attendant,	6	4	13
Naomi A. Griffin, Attendant,	4	9	21
Barbara McDonald, Attendant,	3	7	9
Flora R. Brown, Attendant,	2	2	25
Mary Hall, Attendant,	1	9	10
Jeanette McLean, Attendant,	1	6	3
Minnie Laventure, Attendant,	1	3	9
Annie Preble, Attendant,	1	2	11
Nellie D. Parker, Attendant,	—	11	18
Nettie V. Dinsmore, Attendant,	—	9	11
Olive A. Webber, Attendant,	—	9	9
Lavinia Trenholm, Attendant,	—	1	20
Philomène Goyette, Attendant,	1	11	10
Jessie A. Rand, Night Watch,	3	8	11
Hattie Halladay, Farmers' Dining Room,	10	7	14
Hattie Gamwell, Centre,	1	—	24

33. *Officers and Employees — Concluded.*

NAMES.	Years.	Months.	Days.
Thomas C. Powers, Assistant Steward,	10	11	11
Carrie J. Gamwell, Centre,	—	10	17
Lillian M. Douglass, Cook,	3	4	22
Nellie Clark, Assistant Cook,	7	—	27
Mary Sweeney, Assistant Cook,	—	6	1
Anna Works, Assistant Cook,	—	2	15
Mary A. Carnes, Rear,	1	8	—
William C. Hall, Assistant Engineer,	19	5	17
Nicholas Riel, Night Engineer,	9	2	25
Walter E. Pillinger, Watchman,	10	9	29
Sifroi Belville, Carpenter,	14	10	7
Walter Tower, Carpenter,	8	3	—
Alfred Parenteau, Painter,	19	6	18
David Mercier, Coachman,	8	—	14
Benjamin Rockwell, Assistant Farmer,	17	9	—
Julius Freeman, Assistant Farmer,	7	7	24
Henry Wilson, Assistant Farmer,	5	10	8
James Madden, Assistant Farmer,	9	5	29
Eugene Sullivan, Assistant Farmer,	9	10	—
William C. Albray, Assistant Farmer,	—	10	27
James McClellan, Car Boy,	1	11	30



